Package 'micar'

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Title 'Mica' Data Web Portal Client

Depends R (>= 3.0.0), httr

Imports jsonlite

Suggests knitr, rmarkdown

Description 'Mica' is a server application used to create data web portals for large-scale epidemiological studies or multiple-study consortia. 'Mica' helps studies to provide scientifically robust data visibility and web presence without significant information technology effort. 'Mica' provides a structured description of consortia, studies, annotated and searchable data dictionaries, and data access request management. This 'Mica' client allows to perform data extraction for reporting purposes.

License GPL-3

URL https://www.obiba.org/ https://www.obiba.org/pages/products/mica/ https://doi.org/10.1093/ije/dyx180

BugReports https://github.com/obiba/micar

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`mica.dar` *Get a data access request*

Description

Get a specific data access request.

Usage

```
mica.dar(mica, id)
```

Arguments

`mica`	A Mica object
`id`	Data access request identifier

See Also

Other data access requests functions: `mica.dar.actions()`, `mica.dar.amendment.form()`, `mica.dar.amendment.histor`
`mica.dar.amendments.history()`, `mica.dar.amendments()`, `mica.dar.amendment()`, `mica.dar.form()`,
`mica.dar.history()`, `mica.dars()`

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar(m, "12345")
mica.logout(m)

## End(Not run)
```

`mica.dar.actions` *Get data access request actions*

Description

Get the actions history of a specific data access request.

Usage

```
mica.dar.actions(mica, id, df = TRUE)
```

Arguments

`mica`	A Mica object
`id`	Data access request identifier
`df`	Return a data.frame (default is TRUE)

See Also

Other data access requests functions: `mica.dar.amendment.form()`, `mica.dar.amendment.history()`, `mica.dar.amendments.history()`, `mica.dar.amendments()`, `mica.dar.amendment()`, `mica.dar.form()`, `mica.dar.history()`, `mica.dars()`, `mica.dar()`

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.actions(m, "12345")
mica.logout(m)

## End(Not run)
```

mica.dar.amendment *Get a amendment*

Description

Get a specific data access request amendment.

Usage

```
mica.dar.amendment(mica, pid, id)
```

Arguments

mica	A Mica object
pid	Data access request identifier
id	Amendment identifier

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.form(), mica.dar.amendment.histor
mica.dar.amendments.history(), mica.dar.amendments(), mica.dar.form(), mica.dar.history(),
mica.dars(), mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.amendment(m, "12345", "12345-1")
mica.logout(m)

## End(Not run)
```

mica.dar.amendment.form *Get the data access request amendment form*

Description

Get the data access request amendment form.

Usage

```
mica.dar.amendment.form(mica)
```

Arguments

mica	A Mica object

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.history(), mica.dar.amendments.history(), mica.dar.amendments(), mica.dar.amendment(), mica.dar.form(), mica.dar.history(), mica.dars(), mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.amendment.form(m)
mica.logout(m)

## End(Not run)
```

---

mica.dar.amendment.history

Get amendment history

Description

Get the history of a specific data access request amendment.

Usage

```
mica.dar.amendment.history(mica, pid, id, df = TRUE)
```

Arguments

mica	A Mica object
pid	Data access request identifier
id	Amendment identifier
df	Return a data.frame (default is TRUE)

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.form(), mica.dar.amendments.histo
mica.dar.amendments(), mica.dar.amendment(), mica.dar.form(), mica.dar.history(), mica.dars(), mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.amendment.history(m, "12345", "12345-1")
mica.logout(m)

## End(Not run)
```

mica.dar.amendments *Get amendments*

Description

Get the list of amendments of a specific data access request.

Usage

```
mica.dar.amendments(mica, pid, status = NULL, df = TRUE)
```

Arguments

mica	A Mica object
pid	Data access request identifier
status	Filter by status
df	Return a data.frame (default is TRUE)

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.form(), mica.dar.amendment.histor
mica.dar.amendments.history(), mica.dar.amendment(), mica.dar.form(), mica.dar.history(),
mica.dars(), mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.amendments(m, "12345")
mica.logout(m)

## End(Not run)
```

mica.dar.amendments.history *Get amendments history*

Description

Get the history of the amendments of a specific data access request.

Usage

```
mica.dar.amendments.history(mica, pid, df = TRUE)
```

Arguments

mica	A Mica object
pid	Data access request identifier
df	Return a data.frame (default is TRUE)

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.form(), mica.dar.amendment.histor
mica.dar.amendments(), mica.dar.amendment(), mica.dar.form(), mica.dar.history(), mica.dars(),
mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.amendments.history(m, "12345")
mica.logout(m)

## End(Not run)
```

---

mica.dar.form *Get the data access request form*

Description

Get the data access request form.

Usage

```
mica.dar.form(mica)
```

Arguments

mica	A Mica object

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.form(), mica.dar.amendment.histor
mica.dar.amendments.history(), mica.dar.amendments(), mica.dar.amendment(), mica.dar.history(),
mica.dars(), mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.form(m)
mica.logout(m)

## End(Not run)
```

mica.dar.history *Get data access request history*

Description

Get the history of a specific data access request.

Usage

```
mica.dar.history(mica, id, df = TRUE)
```

Arguments

mica	A Mica object
id	Data access request identifier
df	Return a data.frame (default is TRUE)

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.form(), mica.dar.amendment.histor
mica.dar.amendments.history(), mica.dar.amendments(), mica.dar.amendment(), mica.dar.form(),
mica.dars(), mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dar.history(m, "12345")
mica.logout(m)

## End(Not run)
```

mica.dars *Get the data access requests*

Description

Get the data access requests.

Usage

```
mica.dars(mica, status = NULL, df = TRUE)
```

Arguments

mica	A Mica object
status	Filter by status
df	Return a data.frame (default is TRUE)

See Also

Other data access requests functions: mica.dar.actions(), mica.dar.amendment.form(), mica.dar.amendment.histor
mica.dar.amendments.history(), mica.dar.amendments(), mica.dar.amendment(), mica.dar.form(),
mica.dar.history(), mica.dar()

Examples

```
## Not run:
m <- mica.login("someuser", "somepassword", "https://mica-demo.obiba.org")
mica.dars(m)
mica.logout(m)

## End(Not run)
```

---

mica.datasets *Get the datasets*

Description

Get the datasets

Usage

```
mica.datasets(
  mica,
  query = "dataset()",
  select = list("*"),
  sort = list("id"),
  from = 0,
  limit = 10000,
  locale = "en",
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
select	The fields to be extracted
sort	The fields to sort by

from	From item
limit	Max number of items
locale	The language for labels (default is "en")
df	Return a data.frame (default is TRUE)

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.datasets(m, query="variable(in(Mlstr_area.Lifestyle_behaviours,Drugs))")
mica.logout(m)

## End(Not run)
```

---

mica.login *Open connection with Mica*

Description

Open a connection with Mica and returns a Mica object.

Usage

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

Arguments

username	User name in mica. Can be provided by "mica.username" option.
password	User password in mica. Can be provided by "mica.password" option.
url	Mica url or list of mica urls. Can be provided by "mica.url" option.
opts	Curl options. Can be provided by "mica.opts" option.

Value

A Mica object.

Examples

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

## End(Not run)
```

---

mica.logout *Close connection with Mica*

Description

Close connection and release resources of Mica.

Usage

```
mica.logout(mica)
```

Arguments

mica	A Mica object

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.logout(m)

## End(Not run)
```

---

mica.networks *Get the networks*

Description

Get the networks

Usage

```
mica.networks(
  mica,
  query = "network()",
  select = list("*"),
  sort = list("id"),
  from = 0,
  limit = 100,
  locale = "en",
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
select	The fields to be extracted
sort	The fields to sort by
from	From item
limit	Max number of items
locale	The language for labels (default is "en")
df	Return a data.frame (default is TRUE)

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.networks(m, query="network(in(Mica_network.studyIds,clsa))")
mica.logout(m)

## End(Not run)
```

---

mica.studies *Get the studies*

Description

Get the studies

Usage

```
mica.studies(
  mica,
  query = "study()",
  select = list("acronym", "name", "objectives", "model",
```

```
    "populations.dataCollectionEvents.model.dataSources"),
  sort = list("id"),
  from = 0,
  limit = 100,
  locale = "en",
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
select	The fields to be extracted
sort	The fields to sort by
from	From item
limit	Max number of items
locale	The language for labels (default is "en")
df	Return a data.frame (default is TRUE)

See Also

Other studies functions: `mica.study.dces()`, `mica.study.populations()`

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.studies(m, query="variable(in(Mlstr_area.Lifestyle_behaviours,Drugs))",
  locale="en", from=0, limit=10)
mica.logout(m)

## End(Not run)
```

---

mica.study.dces *Get the study data collection events*

Description

Get the study data collection events (DCEs). Note that the DCEs are not fetched directly, they are extracted from study search results.

Usage

```
mica.study.dces(
  mica,
  query = "study()",
  select = list("populations.dataCollectionEvents"),
  sort = list("id"),
  from = 0,
  limit = 100,
  locale = "en",
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
select	The fields to be extracted
sort	The fields to sort by
from	From item
limit	Max number of items. Note that this limit applies to the studies that are fetched, the resulting count of DCEs will be higher.
locale	The language for labels (default is "en")
df	Return a data.frame (default is TRUE)

See Also

Other studies functions: mica.studies(), mica.study.populations()

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.study.dces(m, query="study(in(Mica_study.methods-design,cohort_study))")
mica.logout(m)

## End(Not run)
```

---

mica.study.populations

Get the study populations

Description

Get the study populations. Note that the populations are not fetched directly, they are extracted from study search results.

Usage

```
mica.study.populations(
  mica,
  query = "study()",
 select = list("populations.name", "populations.description", "populations.model"),
  sort = list("id"),
  from = 0,
  limit = 100,
  locale = "en",
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
select	The fields to be extracted
sort	The fields to sort by
from	From item
limit	Max number of items. Note that this limit applies to the studies that are fetched, the resulting count of populations will be higher.
locale	The language for labels (default is "en")
df	Return a data.frame (default is TRUE)

See Also

Other studies functions: mica.studies(), mica.study.dces()

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.study.populations(m, query="study(in(Mica_study.methods-design,cohort_study))")
mica.logout(m)

## End(Not run)
```

---

mica.taxonomies *Get the taxonomies*

Description

Get the taxonomies, optionally filtered by taxonomy name and by term matching.

Usage

```
mica.taxonomies(
  mica,
  query = NULL,
  locale = "en",
  target = "variable",
  taxonomies = NULL,
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
locale	The language for labels (when NULL labels are not included in the result)
target	What the taxonomy is about: variable (default), dataset, study, network
taxonomies	Taxonomy names to subset. If NULL or empty all taxonomies are returned
df	Return a data.frame (default is TRUE)

See Also

Other taxonomies functions: mica.vocabularies()

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.taxonomies(m, target="variable", query="sex", locale="en",
  taxonomies = list("Mlstr_area", "Mlstr_additional"))
mica.logout(m)

## End(Not run)
```

---

mica.variables *Get the variables*

Description

Get the variables

Usage

```
mica.variables(
  mica,
  query = "variable()",
  select = list("*"),
  sort = list("id"),
  from = 0,
  limit = 10000,
  locale = "en",
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
select	The fields to be extracted
sort	The fields to sort by
from	From item
limit	Max number of items
locale	The language for labels (default is "en")
df	Return a data.frame (default is TRUE)

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.variables(m, query="variable(in(Mlstr_area.Lifestyle_behaviours,Drugs))")
mica.logout(m)

## End(Not run)
```

---

mica.vocabularies *Get the vocabularies*

Description

Get the taxonomy vocabularies, optionally filtered by taxonomy name and by term matching.

Usage

```
mica.vocabularies(
  mica,
  query = NULL,
  locale = "en",
```

```
  target = "variable",
  taxonomies = NULL,
  df = TRUE
)
```

Arguments

mica	A Mica object
query	The search query
locale	The language for labels (when NULL labels are not included in the result)
target	What the taxonomy is about: variable (default), dataset, study, network
taxonomies	Taxonomy names to subset. If NULL or empty all taxonomies are returned
df	Return a data.frame (default is TRUE)

See Also

Other taxonomies functions: `mica.taxonomies()`

Examples

```
## Not run:
m <- mica.login("https://mica-demo.obiba.org")
mica.vocabularies(m,target="variable", query="cancer", locale = "en")
mica.logout(m)

## End(Not run)
```

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