

Package ‘geonapi’

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Type Package

Title 'GeoNetwork' API R Interface

Version 0.2-1

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Description Provides an R interface to the 'GeoNetwork' API (<<https://geonetwork-opensource.org/#api>>) allowing to upload and publish metadata in a 'GeoNetwork' web-application and expose it to OGC CSW.

Depends R (>= 3.1.0), geometa

Imports R6, openssl, httr, XML

Suggests testthat, roxygen2

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URL <https://github.com/eblondel/geonapi/wiki>,
<https://geonetwork-opensource.org>

BugReports <https://github.com/eblondel/geonapi/issues>

LazyLoad yes

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geonapi *'GeoNetwork' API R Interface*

Description

Provides an R interface to the 'GeoNetwork' API (<<https://geonetwork-opensource.org/#api>>) allowing to upload and publish metadata in a 'GeoNetwork' web-application and expose it to OGC CSW Web-Services (Catalogue Service for the Web).

Details

Package: geonapi
 Type: Package
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 License: MIT
 LazyLoad: yes

Author(s)

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GNManager *GeoNetwork REST API Manager*

Description

GeoNetwork REST API Manager

Usage

GNManager

Format

[R6Class](#) object.

Value

Object of [R6Class](#) with methods for communication with the REST API of a GeoNetwork instance.

Fields

loggerType the type of logger
 verbose.info if geosapi logs have to be printed
 verbose.debug if curl logs have to be printed
 url the Base url of GeoNetwork
 version the version of GeoNetwork. Handled as GNVersion object
 user the user name

Methods

new(url, user, pwd, version, logger) This method is used to instantiate a GNManager with the url of the GeoNetwork and credentials to authenticate (user/pwd). By default, the logger argument will be set to NULL (no logger). This argument accepts two possible values: INFO: to print only geonapi logs, DEBUG: to print geonapi and CURL logs

logger(type, text) Basic logger to report geonapi logs. Used internally

INFO(text) Logger to report information. Used internally

WARN(text) Logger to report warnings. Used internally

ERROR(text) Logger to report errors. Used internally

getUrl() Get the authentication URL

getLang() Get the service lang

login(user, pwd) This methods attempts a connection to GeoNetwork REST API. User internally during initialization of GNManager.

getClassName() Retrieves the name of the class instance

insertMetadata(xml, file, geometa, group, category, stylesheet, validate) Inserts a metadata by file, XML object or **geometa** object of class ISOMetadata or ISOFeatureCatalogue. If successful, returns the Geonetwork metadata internal identifier (integer).

setPrivConfiguration(id, config) Set the privilege configuration for a metadata. 'id' is the metadata integer id. 'config' is an object of class "GNPrivConfiguration".

get(id, by, output) Generic getter for metadata. Possible values for by are 'id', 'uuid'. Used internally only. The 'output' argument gives the type of output to return, with possible values "id", "metadata", "info".

getMetadataByID(id) Get a metadata by Id. Returns an object of class ISOMetadata (ISO 19115) or ISOFeatureCatalogue (ISO 19110) (from **geometa** package)

getMetadataByUUID(uuid) Get a metadata by UUID. Returns an object of class ISOMetadata (ISO 19115) or ISOFeatureCatalogue (ISO 19110) (from **geometa** package)

getInfoByID(id) Get a metadata Info by Id. Returns an XML document object

getInfoByUUID(uuid) Get a metadata Info by UUID. Returns an XML document object

updateMetadata(id, xml, file, geometa) Updates a metadata by file, XML object or **geometa** object of class 'ISOMetadata' or 'ISOFeatureCatalogue'.

deleteMetadata(id) Deletes a metadata

deleteMetadataAll() Deletes all metadata for which the authenticated user is owner

Author(s)

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Examples

```
## Not run:  
  GManager$new("http://localhost:8080/geonetwork", "admin", "geonetwork")  
  
## End(Not run)
```

GNPrivConfiguration *A GeoNetwork privilege configuration*

Description

This class is an utility to configure privileges

This class is an utility to configure privileges

Usage

GNPriv

GNPrivConfiguration

Format

[R6Class](#) object.

Details

GeoNetwork REST API - GeoNetwork privilege configuration

GeoNetwork REST API - GeoNetwork privilege configuration

Value

Object of [R6Class](#) for modelling a GeoNetwork Privilege configuration

Object of [R6Class](#) for modelling a GeoNetwork Privilege configuration

Methods

`new()` This method is used to instantiate a GNPriv object.

`new()` This method is used to instantiate a GNPrivConfiguration object.

`setPrivileges(group, privileges)` Sets the operation privileges for a particular group. Allowed group values are "guest", "intranet" and "all". Allowed values for operation privileges are "view", "download", "editing", "notify", "dynamic" and "featured".

Author(s)

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Examples

```
## Not run:
priv <- GNPriv$new(group="all", privileges=c("view","dynamic","featured"))

## End(Not run)

## Not run:
pcfg <- GNPrivConfiguration$new()
pcfg$setPrivileges("all", c("view","dynamic","featured"))

## End(Not run)
```

GNRESTRequest

GeoNetwork REST API REST Request

Description

GeoNetwork REST API REST Request

Usage

GNRESTRequest

Format

[R6Class](#) object.

Value

Object of [R6Class](#) for modelling a GeoNetwork REST request

Abstract Methods

`new()` This method is used to instantiate a GNRESTRequest

`setChild(key,value)` Sets a child element

`encode()` Encodes a GNRESTRequest R6 object to XML representation

Author(s)

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GNUutils

GeoNetwork REST API Manager Utils

Description

GeoNetwork REST API Manager Utils

Usage

GNUutils

Format

[R6Class](#) object.

Value

Object of [R6Class](#) with static util methods for communication with the REST API of a GeoNetwork instance.

Static methods

`getUserAgent()` This method is used to get the user agent for performing GeoNetwork API requests. Here the user agent will be compound by `geonapi` package name and version.

`getUserToken(user, pwd)` This method is used to get the user authentication token for performing GeoNetwork API requests. Token is given a Base64 encoded string.

`GET(url, path, token, verbose)` This method performs a GET request for a given path to GeoNetwork REST API

`PUT(url, path, token, filename, contentType, verbose)` This method performs a PUT request for a given path to GeoNetwork REST API, to upload a file of name `filename` with given `contentType`

`POST(url, path, token, content, contentType, verbose)` This method performs a POST request for a given path to GeoNetwork REST API, to post content of given `contentType`

`DELETE(url, path, token, verbose)` This method performs a DELETE request for a given GeoNetwork resource identified by a path in GeoNetwork REST API

`parseResponseXML(req)` Convenience method to parse XML response from GeoNetwork REST API. Although package `httr` suggests the use of `xml2` package for handling XML, `geonapi` still relies on the package `XML`. Response from `httr` is retrieved as text, and then parsed as XML `'xmlParse'` function.

`getPayloadXML(obj)` Convenience method to create payload XML to send to GeoNetwork.

Author(s)

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GNVersion

A GeoNetwork version

Description

This class is an utility wrap the Geonetwork version

Usage

```
GNVersion
```

Format

[R6Class](#) object.

Details

GeoNetwork REST API - GeoNetwork Version

Value

Object of [R6Class](#) for modelling a GeoNetwork version

Methods

`new(version)` This method is used to instantiate a GNVersion object.

`lowerThan(version)` Compares to a version and returns TRUE if it is lower, FALSE otherwise

`greaterThan(version)` Compares to a version and returns TRUE if it is greater, FALSE otherwise

`equalTo(version)` Compares to a version and returns TRUE if it is equal, FALSE otherwise

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
## Not run:  
version <- GNVersion$new("2.6.4")  
  
## End(Not run)
```

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