

# Package ‘geonapi’

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**Type** Package

**Title** 'GeoNetwork' API R Interface

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**Maintainer** Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**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, keyring

**Imports** R6, openssl, httr, XML

**Suggests** testthat, roxygen2

**License** MIT + file LICENSE

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

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

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geonapi	<i>'GeoNetwork' API R Interface</i>
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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 Web-Services (Catalogue Service for the Web).

### Author(s)

Emmanuel Blondel <[emmanuel.blondel1@gmail.com](mailto:emmanuel.blondel1@gmail.com)>

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GNAbstractManager	<i>GNAbstractManager</i>
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### Description

GNAbstractManager  
GNAbstractManager

### Format

[R6Class](#) object.

### Value

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

### Public fields

`verbose.info` If package info log messages have to be printed out  
`verbose.debug` If curl debug log messages have to be printed out  
`loggerType` the type of logger  
`url` the Base url of GeoNetwork  
`version` the version of GeoNetwork. Handled as `GNVersion` object  
`lang` the language for Geonetwork service. Default is eng  
`basicAuth` if basic auth is performed

## Methods

### Public methods:

- [GNAbstractManager\\$logger\(\)](#)
- [GNAbstractManager\\$INFO\(\)](#)
- [GNAbstractManager\\$WARN\(\)](#)
- [GNAbstractManager\\$ERROR\(\)](#)
- [GNAbstractManager\\$new\(\)](#)
- [GNAbstractManager\\$getUrl\(\)](#)
- [GNAbstractManager\\$getLang\(\)](#)
- [GNAbstractManager\\$login\(\)](#)
- [GNAbstractManager\\$getClassName\(\)](#)
- [GNAbstractManager\\$clone\(\)](#)

**Method** `logger()`: Provides log messages

*Usage:*

`GNAbstractManager$logger(type, text)`

*Arguments:*

type type of log ("INFO", "WARN", "ERROR")

text the log message text

**Method** `INFO()`: Provides INFO log messages

*Usage:*

`GNAbstractManager$INFO(text)`

*Arguments:*

text the log message text

**Method** `WARN()`: Provides WARN log messages

*Usage:*

`GNAbstractManager$WARN(text)`

*Arguments:*

text the log message text

**Method** `ERROR()`: Provides ERROR log messages

*Usage:*

`GNAbstractManager$ERROR(text)`

*Arguments:*

text the log message text

**Method** `new()`: This method is used to instantiate a [GNAbstractManager](#) with the url of the GeoNetwork and credentials to authenticate (user/pwd). By default, the logger argument will be set to NULL (no logger).

The `keyring_backend` can be set to use a different backend for storing the Geonetwork password/token with **keyring** (Default value is 'env').

The logger can be either NULL, "INFO" (with minimum logs), or "DEBUG" (for complete curl http calls logs)

*Usage:*

```
GNAbstractManager$new(  
  url,  
  user = NULL,  
  pwd = NULL,  
  version,  
  logger = NULL,  
  keyring_backend = "env"  
)
```

*Arguments:*

url url  
user user  
pwd pwd  
version version  
logger logger  
keyring\_backend keyring backend. Default is 'env'

**Method getUrl():** Get URL*Usage:*

```
GNAbstractManager$getUrl()
```

*Returns:* an object of class character

**Method getLang():** Get service language*Usage:*

```
GNAbstractManager$getLang()
```

*Returns:* an object of class character

**Method login():** Log-ins. This methods (here abstract) attempts a connection to GeoNetwork API. Used internally by subclasses of [GNAbstractManager](#) to login Geonetwork.*Usage:*

```
GNAbstractManager$login(user, pwd)
```

*Arguments:*

user user  
pwd pwd

**Method getClassName():** Get class name*Usage:*

```
GNAbstractManager$getClassName()
```

*Returns:* an object of class character

**Method clone():** The objects of this class are cloneable with this method.*Usage:*

```
GNAbstractManager$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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GNLegacyAPIManager      *GNLegacyAPIManager*

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**Description**

GNLegacyAPIManager

GNLegacyAPIManager

**Format**

[R6Class](#) object.

**Value**

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

**Super class**

[geonapi::GNAbstractManager](#) -> GNLegacyAPIManager

**Methods****Public methods:**

- [GNLegacyAPIManager\\$new\(\)](#)
- [GNLegacyAPIManager\\$login\(\)](#)
- [GNLegacyAPIManager\\$getGroups\(\)](#)
- [GNLegacyAPIManager\\$getCategories\(\)](#)
- [GNLegacyAPIManager\\$insertMetadata\(\)](#)
- [GNLegacyAPIManager\\$setPrivConfiguration\(\)](#)
- [GNLegacyAPIManager\\$get\(\)](#)
- [GNLegacyAPIManager\\$getMetadataByID\(\)](#)
- [GNLegacyAPIManager\\$getMetadataByUUID\(\)](#)
- [GNLegacyAPIManager\\$getInfoByID\(\)](#)
- [GNLegacyAPIManager\\$getInfoByUUID\(\)](#)
- [GNLegacyAPIManager\\$updateMetadata\(\)](#)
- [GNLegacyAPIManager\\$deleteMetadata\(\)](#)
- [GNLegacyAPIManager\\$deleteMetadataAll\(\)](#)
- [GNLegacyAPIManager\\$clone\(\)](#)

**Method new():** This method is used to instantiate a GNLegacyAPIManager with the url of the GeoNetwork and credentials to authenticate (user/pwd).

The keyring\_backend can be set to use a different backend for storing the Geonetwork password/token with **keyring** (Default value is 'env').

The logger can be either NULL, "INFO" (with minimum logs), or "DEBUG" (for complete curl http calls logs)

*Usage:*

```
GNLegacyAPIManager$new(
  url,
  user = NULL,
  pwd = NULL,
  version,
  logger = NULL,
  keyring_backend = "env"
)
```

*Arguments:*

```
url url
user user
pwd pwd
version version
logger logger
keyring_backend keyring backend. Default is 'env'
```

**Method login():** #' This methods attempts a connection to GeoNetwork REST API. User internally during initialization of GNLegacyAPIManager.

*Usage:*

```
GNLegacyAPIManager$login(user, pwd)
```

*Arguments:*

```
user user
pwd pwd
```

**Method getGroups():** Retrieves the list of user groups available in Geonetwork

*Usage:*

```
GNLegacyAPIManager$getGroups()
```

*Returns:* an object of class data.frame

**Method getCategories():** Retrieves the list of categories available in Geonetwork

*Usage:*

```
GNLegacyAPIManager$getCategories()
```

*Returns:* an object of class data.frame

**Method insertMetadata():** Inserts a metadata by file, XML object or **geometa** object of class ISOMetadata or ISOFeatureCatalogue. If successful, returns the Geonetwork metadata internal identifier (integer). Extra parameters geometa\_validate (TRUE by default) and geometa\_inspire (FALSE by default) can be used with geometa objects for perform ISO and INSPIRE validation respectively. In that case on object of class geometa::INSPIREMetadataValidator, with a proper user API key, should be specified as geometa\_inspireValidator argument.

*Usage:*

```
GNLegacyAPIManager$insertMetadata(
    xml = NULL,
    file = NULL,
    geometa = NULL,
    group,
    category = NULL,
    stylesheet = NULL,
    validate = FALSE,
    geometa_validate = TRUE,
    geometa_inspire = FALSE,
    geometa_inspireValidator = NULL
)
```

*Arguments:*

xml xml object of class [XMLInternalNode-class](#) from **XML**  
file file  
geometa geometa, object of class ISOMetadata or ISOFeatureCatalogue from **geometa**  
group group  
category category  
stylesheet stylesheet  
validate validate  
geometa\_validate validate geometa object  
geometa\_inspire validate geometa object vs. INSPIRE  
geometa\_inspireValidator geometa INSPIRE validator to use

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

*Usage:*

```
GNLegacyAPIManager$setPrivConfiguration(id, config)
```

*Arguments:*

id id  
config config

**Method** get(): 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".

*Usage:*

```
GNLegacyAPIManager$get(id, by, output)
```

*Arguments:*

id id  
by by  
output output

**Method** getMetadataByID(): Get a metadata by Id

*Usage:*

```
GNLegacyAPIManager$getMetadataByID(id)
```

*Arguments:*

```
id id
```

*Returns:* an object of class ISOMetadata (ISO 19115) or ISOFeatureCatalogue (ISO 19110) (from **geometa** package)

**Method** getMetadataByUUID(): Get a metadata by UUID*Usage:*

```
GNLegacyAPIManager$getMetadataByUUID(uuid)
```

*Arguments:*

```
uuid uuid
```

*Returns:* an object of class ISOMetadata (ISO 19115) or ISOFeatureCatalogue (ISO 19110) (from **geometa** package)

**Method** getInfoByID(): Get a metadata Info by Id.*Usage:*

```
GNLegacyAPIManager$getInfoByID(id)
```

*Arguments:*

```
id id
```

*Returns:* an XML document object

**Method** getInfoByUUID(): Get a metadata Info by UUID*Usage:*

```
GNLegacyAPIManager$getInfoByUUID(uuid)
```

*Arguments:*

```
uuid uuid
```

*Returns:* an XML document object

**Method** updateMetadata(): Updates a metadata by file, XML object or **geometa** object of class 'ISOMetadata' or 'ISOFeatureCatalogue'. Extra parameters `geometa_validate` (TRUE by default) and `geometa_inspire` (FALSE by default) can be used with `geometa` objects for perform ISO and INSPIRE validation respectively. In that case on object of class `geometa::INSPIREMetadataValidator`, with a proper user API key, should be specified as `geometa_inspireValidator` argument.

*Usage:*

```
GNLegacyAPIManager$updateMetadata(
  id,
  xml = NULL,
  file = NULL,
  geometa = NULL,
  geometa_validate = TRUE,
  geometa_inspire = FALSE,
  geometa_inspireValidator = NULL
)
```



*Arguments:*

id metadata id

xml xml object of class [XMLInternalNode-class](#) from **XML**

file file

geometa geometa, object of class ISOMetadata or ISOFeatureCatalogue from **geometa**

geometa\_validate validate geometa object

geometa\_inspire validate geometa object vs. INSPIRE

geometa\_inspireValidator geometa INSPIRE validator to use

**Method** deleteMetadata(): Deletes metadata by Id.

*Usage:*

```
GNLegacyAPIManager$deleteMetadata(id)
```

*Arguments:*

id id

*Returns:* the id of the record deleted, NULL otherwise

**Method** deleteMetadataAll(): Deletes all metadata

*Usage:*

```
GNLegacyAPIManager$deleteMetadataAll()
```

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
GNLegacyAPIManager$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**Examples**

```
## Not run:  
GNLegacyAPIManager$new("http://localhost:8080/geonetwork", "admin", "geonetwork", "3.0.0")  
  
## End(Not run)
```

---

GNManager

*GeoNetwork REST API Manager*

---

## Description

The function `GNManager$new` will set-up the right Geonetwork manager depending on the GeoNetwork version specified by the user. For the time-being, GeoNetwork with version < 4 will be interfaced with the GeoNetwork legacy API (see detailed documentation at [GNLegacyAPIManager](#)), while starting with GeoNetwork 3.2, the new GeoNetwork OpenAPI will be used.

## Format

`R6Class` object.

## Value

Object of `R6Class` with methods for communication with the API of a GeoNetwork instance.

## Super class

`geonapi::GNAbstractManager` -> `GNManager`

## Methods

### Public methods:

- `GNManager$new()`
- `GNManager$clone()`

**Method** `new()`: Initializes a `GNManager`

*Usage:*

```
GNManager$new(url, user = NULL, pwd = NULL, version, logger = NULL)
```

*Arguments:*

`url` url

`user` user

`pwd` pwd

`version` version

`logger` logger

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
GNManager$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**Examples**

```
## Not run:  
  GManager$new("http://localhost:8080/geonetwork", "admin", "geonetwork", "3.0.0")  
  
## End(Not run)
```

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GNOpenAPIManager	<i>GNOpenAPIManager</i>
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---

**Description**

GNOpenAPIManager

GNOpenAPIManager

**Format**

[R6Class](#) object.

**Value**

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

**Super class**

[geonapi::GNAbstractManager](#) -> GNOpenAPIManager

**Methods****Public methods:**

- [GNOpenAPIManager\\$new\(\)](#)
- [GNOpenAPIManager\\$login\(\)](#)
- [GNOpenAPIManager\\$getGroups\(\)](#)
- [GNOpenAPIManager\\$getTags\(\)](#)
- [GNOpenAPIManager\\$getCategories\(\)](#)
- [GNOpenAPIManager\\$getMetadataByUUID\(\)](#)
- [GNOpenAPIManager\\$insertRecord\(\)](#)
- [GNOpenAPIManager\\$insertMetadata\(\)](#)
- [GNOpenAPIManager\\$updateMetadata\(\)](#)
- [GNOpenAPIManager\\$deleteMetadata\(\)](#)

- `GNOpenAPIManager$uploadAttachment()`
- `GNOpenAPIManager$publishThumbnail()`
- `GNOpenAPIManager$doiCheckPreConditions()`
- `GNOpenAPIManager$createDOI()`
- `GNOpenAPIManager$deleteDOI()`
- `GNOpenAPIManager$clone()`

**Method new():** This method is used to instantiate a GNOpenAPIManager with the url of the GeoNetwork and credentials to authenticate (user/pwd).

The `keyring_backend` can be set to use a different backend for storing the Geonetwork password/token with **keyring** (Default value is 'env').

The logger can be either NULL, "INFO" (with minimum logs), or "DEBUG" (for complete curl http calls logs)

*Usage:*

```
GNOpenAPIManager$new(
  url,
  user = NULL,
  pwd = NULL,
  version,
  logger = NULL,
  keyring_backend = "env"
)
```

*Arguments:*

```
url url
user user
pwd pwd
version version
logger logger
keyring_backend keyring backend
```

**Method login():** This methods attempts a connection to GeoNetwork REST API. User internally during initialization of GNLegacyAPIManager.

*Usage:*

```
GNOpenAPIManager$login(user, pwd)
```

*Arguments:*

```
user user
pwd pwd
```

**Method getGroups():** Retrieves the list of user groups available in Geonetwork

*Usage:*

```
GNOpenAPIManager$getGroups()
```

*Returns:* an object of class `data.frame`

**Method getTags():** Retrieves the list of tags (categories) available in Geonetwork

*Usage:*

```
GNOpenAPIManager$getTags()
```

*Returns:* an object of class `data.frame`

**Method** `getCategories()`: Retrieves the list of categories (same as tags) available in Geonetwork

*Usage:*

```
GNOpenAPIManager$getCategories()
```

*Returns:* an object of class `data.frame`

**Method** `getMetadataByUUID()`: Get a metadata by UUID.

*Usage:*

```
GNOpenAPIManager$getMetadataByUUID(
  uuid,
  addSchemaLocation = TRUE,
  increasePopularity = TRUE,
  approved = TRUE
)
```

*Arguments:*

`uuid` `uuid`

`addSchemaLocation` add schema location. Default is TRUE

`increasePopularity` increase popularity. Default is TRUE

`approved` approved

*Returns:* Returns an object of class `ISOMetadata` (ISO 19115) or `ISOFeatureCatalogue` (ISO 19110) (from **geometa** package)

**Method** `insertRecord()`: Inserts a record by file, XML object or **geometa** object of class `ISOMetadata` or `ISOFeatureCatalogue`. Extra parameters related to **geometa** objects: `geometa_validate` (TRUE by default) and `geometa_inspire` (FALSE by default) can be used to perform ISO and INSPIRE validation respectively. In that case an object of class `geometa::INSPIREMetadataValidator`, with a proper user API key, should be specified as `geometa_inspireValidator` argument.

*Usage:*

```
GNOpenAPIManager$insertRecord(
  xml = NULL,
  file = NULL,
  geometa = NULL,
  metadataType = "METADATA",
  uuidProcessing = "NOTHING",
  group,
  category = NULL,
  rejectIfInvalid = FALSE,
  publishToAll = TRUE,
  transformWith = "_none_",
  schema = NULL,
  extra = NULL,
```

```

    geometa_validate = TRUE,
    geometa_inspire = FALSE,
    geometa_inspireValidator = NULL
)

```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**

file file

geometa geometa object of class ISOMetadata or ISOFeatureCatalogue

metadataType metadata type. By default METADATA

uuidProcessing UUID processing. By default NOTHING. Other possible value: OVERWRITE

group group

category category

rejectIfInvalid reject if invalid. Default FALSE

publishToAll publish to all. Default TRUE

transformWith transform with. Default is `_none_`

schema schema

extra extra

geometa\_validate validate geometa object

geometa\_inspire validate geometa object vs. INSPIRE

geometa\_inspireValidator geometa INSPIRE validator to use

**Method** `insertMetadata()`: Inserts a metadata by file, XML object or **geometa** object of class ISOMetadata or ISOFeatureCatalogue. Extra parameters related to **geometa** objects: `geometa_validate` (TRUE by default) and `geometa_inspire` (FALSE by default) can be used to perform ISO and INSPIRE validation respectively. In that case on object of class `geometa::INSPIREMetadataValidator`, with a proper user API key, should be specified as `geometa_inspireValidator` argument.

*Usage:*

```

GNOpenAPIManager$insertMetadata(
  xml = NULL,
  file = NULL,
  geometa = NULL,
  metadataType = "METADATA",
  uuidProcessing = "NOTHING",
  group,
  category = NULL,
  rejectIfInvalid = FALSE,
  publishToAll = TRUE,
  transformWith = "_none_",
  schema = NULL,
  extra = NULL,
  geometa_validate = TRUE,
  geometa_inspire = FALSE,
  geometa_inspireValidator = NULL
)

```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
 file file  
 geometa geometa object of class ISOMetadata or ISOFeatureCatalogue  
 metadataType metadata type. By default METADATA  
 uuidProcessing UUID processing. By default NOTHING. Other possible value: OVERWRITE  
 group group  
 category category  
 rejectIfInvalid reject if invalid. Default FALSE  
 publishToAll publish to all. Default TRUE  
 transformWith transform with. Default is `_none_`  
 schema schema  
 extra extra  
 geometa\_validate validate geometa object  
 geometa\_inspire validate geometa object vs. INSPIRE  
 geometa\_inspireValidator geometa INSPIRE validator to use

**Method** `updateMetadata()`: Inserts a metadata by file, XML object or **geometa** object of class ISOMetadata or ISOFeatureCatalogue. Extra parameters related to **geometa** objects: `geometa_validate` (TRUE by default) and `geometa_inspire` (FALSE by default) can be used to perform ISO and INSPIRE validation respectively. In that case an object of class `geometa::INSPIREMetadataValidator`, with a proper user API key, should be specified as `geometa_inspireValidator` argument.

*Usage:*

```

GNOpenAPIManager$updateMetadata(
  xml = NULL,
  file = NULL,
  geometa = NULL,
  metadataType = "METADATA",
  group,
  category = NULL,
  rejectIfInvalid = FALSE,
  publishToAll = TRUE,
  transformWith = "_none_",
  schema = NULL,
  extra = NULL,
  geometa_validate = TRUE,
  geometa_inspire = FALSE,
  geometa_inspireValidator = NULL
)

```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
 file file  
 geometa geometa object of class ISOMetadata or ISOFeatureCatalogue  
 metadataType metadata type. By default METADATA  
 group group  
 category category

rejectIfInvalid reject if invalid. Default FALSE  
 publishToAll publish to all. Default TRUE  
 transformWith transform with. Default is `_none_`  
 schema schema  
 extra extra  
 geometa\_validate validate geometa object  
 geometa\_inspire validate geometa object vs. INSPIRE  
 geometa\_inspireValidator geometa INSPIRE validator to use

**Method** `deleteMetadata()`: Deletes a metadata by ID

*Usage:*

```
GNOpenAPIManager$deleteMetadata(id, withBackup = TRUE)
```

*Arguments:*

id id

withBackup proceed with backup. Default is TRUE

**Method** `uploadAttachment()`: Uploads attachment

*Usage:*

```
GNOpenAPIManager$uploadAttachment(
  id,
  file,
  visibility = "public",
  approved = TRUE
)
```

*Arguments:*

id metadata identifier

file file to upload

visibility public or private

approved object of class logical

*Returns:* a named list of the uploaded attachment, including the url, size, id and type, NULL otherwise

**Method** `publishThumbnail()`: Publishes thumbnail based on URL

*Usage:*

```
GNOpenAPIManager$publishThumbnail(id, url, desc = "")
```

*Arguments:*

id metadata identifier

url thumbnail URL

desc thumbnail description

*Returns:* TRUE if published, FALSE otherwise

**Method** `doiCheckPreConditions()`: Checks pre-conditions to publish DOI

*Usage:*



GNOpenAPIManager\$doiCheckPreConditions(id)

*Arguments:*

id metadata identifier

*Returns:* TRUE if DOI pre-conditions are fulfilled, FALSE otherwise

**Method** createDOI(): Submit a record to the Datacite metadata store in order to create a DOI.

*Usage:*

GNOpenAPIManager#createDOI(id)

*Arguments:*

id metadata identifier

*Returns:* TRUE if metadata record has been submitted with DOI created, FALSE otherwise

**Method** deleteDOI(): Remove a DOI (this is not recommended, DOI are supposed to be persistent once created. This is mainly here for testing).

*Usage:*

GNOpenAPIManager\$deleteDOI(id)

*Arguments:*

id

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

GNOpenAPIManager\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### Examples

```
## Not run:  
GNOpenAPIManager$new("http://localhost:8080/geonetwork", "admin", "geonetwork", "4.0.5")  
  
## 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

### Format

[R6Class](#) object.

[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

### Public fields

group group

privileges privileges

### Methods

#### Public methods:

- [GNPriv\\$new\(\)](#)
- [GNPriv\\$clone\(\)](#)

**Method new():** Initializes a [GNPriv](#) object

*Usage:*

`GNPriv$new(group, privileges)`

*Arguments:*

group group

privileges privileges

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

`GNPriv$clone(deep = FALSE)`

*Arguments:*

deep Whether to make a deep clone.

**Public fields**

privileges privileges

**Methods****Public methods:**

- [GNPrivConfiguration\\$new\(\)](#)
- [GNPrivConfiguration\\$setPrivileges\(\)](#)
- [GNPrivConfiguration\\$clone\(\)](#)

**Method** `new()`: Initializes an object of class [GNPrivConfiguration](#)

*Usage:*

```
GNPrivConfiguration$new()
```

**Method** `setPrivileges()`: 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".

*Usage:*

```
GNPrivConfiguration$setPrivileges(group, privileges)
```

*Arguments:*

group group

privileges privileges

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
GNPrivConfiguration$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**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

GeoNetwork REST API REST Request

### Format

[R6Class](#) object.

### Value

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

### Public fields

rootName root name

children children

### Methods

#### Public methods:

- [GNRESTRequest\\$new\(\)](#)
- [GNRESTRequest\\$setChild\(\)](#)
- [GNRESTRequest\\$encode\(\)](#)
- [GNRESTRequest\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes a [GNRESTRequest](#)

*Usage:*

[GNRESTRequest\\$new\(...\)](#)

*Arguments:*

... any parameter to pass to the request

**Method** [setChild\(\)](#): Set child

*Usage:*

[GNRESTRequest\\$setChild\(key, value\)](#)

*Arguments:*

key key

value value

**Method** [encode\(\)](#): Encodes request as XML

*Usage:*

GNRESTRequest\$encode()

*Returns:* an object of class character representing the XML

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

GNRESTRequest\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

---

GNUtils

*GeoNetwork REST API Manager Utils*

---

### Description

GeoNetwork REST API Manager Utils

GeoNetwork REST API Manager Utils

### 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, encode, 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.

## Methods

### Public methods:

- `GNUtils$clone()`

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
GNUtils$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

---

GNVersion

*A GeoNetwork version*

---

## Description

This class is an utility wrap the Geonetwork version

## Format

`R6Class` object.

## Details

GeoNetwork REST API - GeoNetwork Version

## Value

Object of `R6Class` for modelling a GeoNetwork version

## Public fields

`version` version

`value` value

**Methods****Public methods:**

- [GNVersion\\$new\(\)](#)
- [GNVersion\\$lowerThan\(\)](#)
- [GNVersion\\$greaterThan\(\)](#)
- [GNVersion\\$equalTo\(\)](#)
- [GNVersion\\$clone\(\)](#)

**Method** `new()`: Initializes an object of class [GNVersion](#)

*Usage:*

```
GNVersion$new(version)
```

*Arguments:*

version version

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

*Usage:*

```
GNVersion$lowerThan(version)
```

*Arguments:*

version version

*Returns:* TRUE if lower, FALSE otherwise

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

*Usage:*

```
GNVersion$greaterThan(version)
```

*Arguments:*

version version

*Returns:* TRUE if lower, FALSE otherwise

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

*Usage:*

```
GNVersion$equalTo(version)
```

*Arguments:*

version version

*Returns:* TRUE if lower, FALSE otherwise

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
GNVersion$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**Examples**

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



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