DOI-Server

Jean-Christophe Malapert

CNES - 2019

Overview

A Digital Object Identifier or DOIs are in use mainly to identify academic, professional, and government information, such as journal articles, research reports and data sets, and official publications.

The DOI for a document remains fixed over the lifetime of the document, whereas its location and other metadata may change. Referring to an online document by its DOI provides more stable linking than simply using its URL, because if its URL changes, the publisher only needs to update the metadata for the DOI to link to the new URL.

A DOI is a persistent identifier, represented by an alphanumeric string assigned to uniquely identify an object. It is tied to a metadata description of the object as well as to a digital location, such as a URL, where all the details about the object are accessible.

A DOI name is divided into three parts, separated by the first two slashes ('/'):

A DOI aims to be "resolvable" by the proxy. This is achieved by binding the DOI to metadata about the object, such as a URL, indicating where the object can be found. Thus, by being actionable and interoperable, a DOI differs from identifiers such as ISBNs and ISRCs which aim only to uniquely identify their referents.

A DOI prefix always starts with '10.' and continues with a number (e.g. '10.1234' or '10.20865'). The DOI prefix is used as a namespace so that DOIs are globally unique without requiring global coordination for every new identifier. Prefixes in the handle system and therefore all DOIs prefixes are numbers without any semantic meaning. The prefix is a unique number attributed by DataCite for a given organization.

The suffix for a DOI can be (almost) any string. Each suffix must be unique within the organization and is defined by the following list of characters : *A-Z a-z 0-9 - . _ : / +*
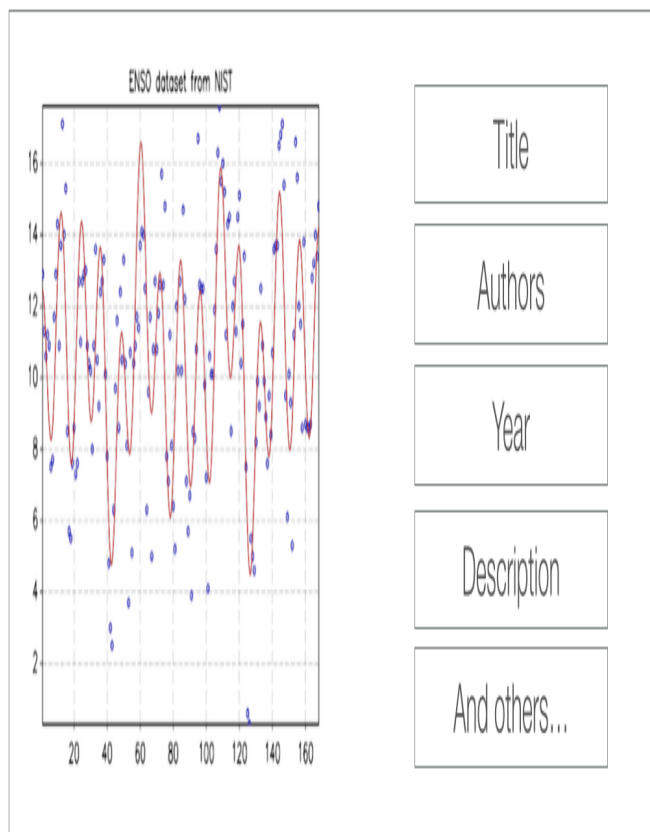
This document provides the description of the DOI server. it aims is to provide a common service to an organization so that each project of this organization can manage its own DOI according to their own access rights. The access rights are defined by the DOI server whereas the real creation of a DOI is handled between the DOI server and the DataCite API by a unique login/password. Moreover, the DOI server guarantees an unique identifer in the whole organization at condition that the project guarantees an unique identifier in its own project.

1. Take a dataset

ENSO dataset from NIST

2. Describe it

Title

Authors

Year

Description

And others...

3. Assign a DOI

10.1234/exampledata

4. Reuse and reference!
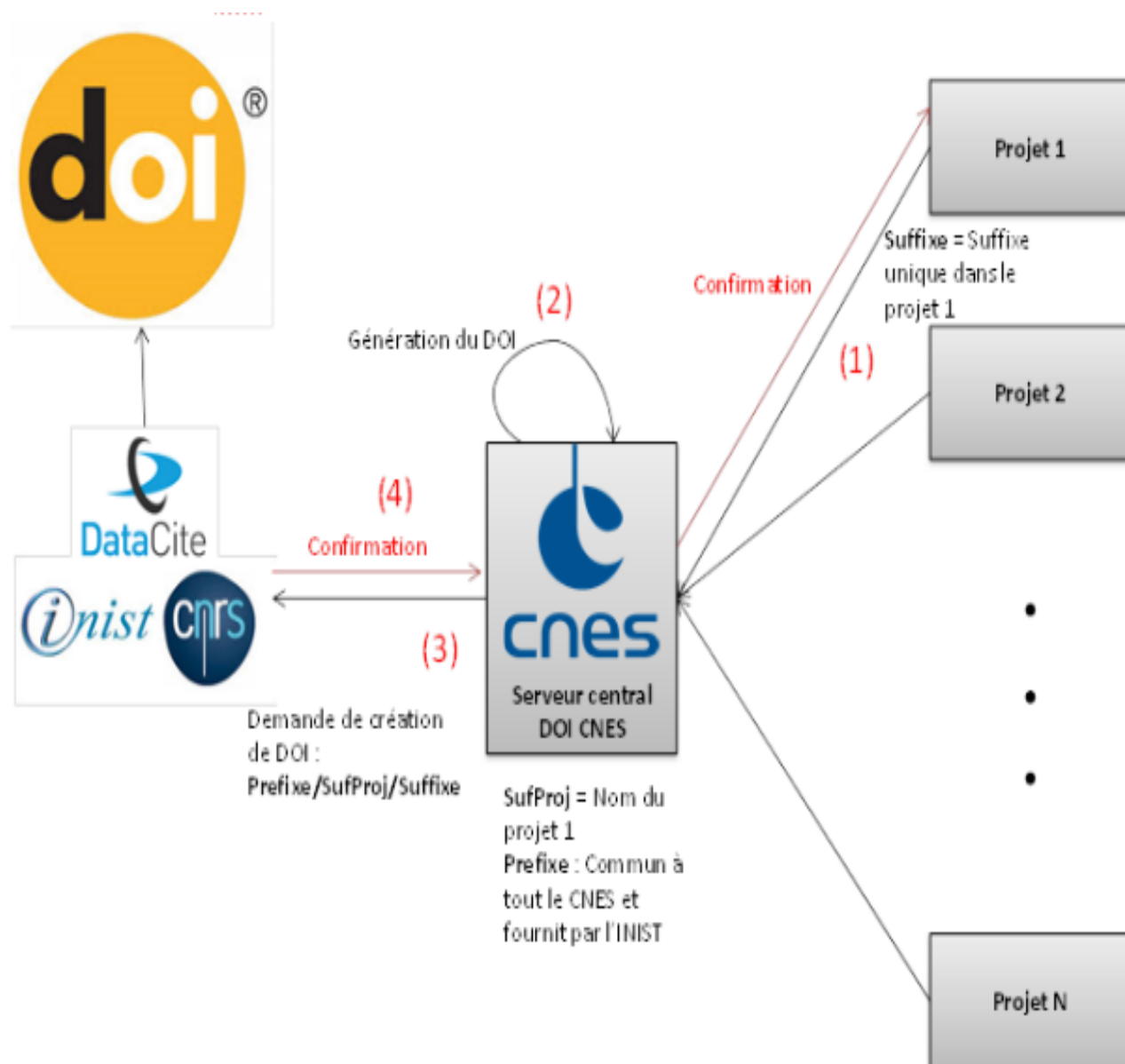
ATLAS Collaboration, "Data from Figure 7 from: Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC: $H \rightarrow \gamma\gamma$," http://doi.org/10.7484/INSPIREHEP.DATA.A78C.HK44

☑ Unique   ☑ Persistent

5. Enjoy the benefits!

Findability

Track citations

Reusability

Measure impact

Package
fr.cnes.doi.application

Data Object Identifier managing a coherent set of resources and services.

The applications package contains:

- a `Meta Data Store application` that is responsible to handle (create/update/ delete) DOIs. This application wraps the DataCite Metadata Data Store
- A `Cross Cite application` that is responsible to get citation from a registered DOI. This application wraps the Citation service
- A `administation application` that provides resources for the administration of the Data Object Identifier service

1 - Introduction

A Digital Object Identifier (DOI) is an alphanumeric string assigned to uniquely identify an object. It is tied to a metadata description of the object as well as to a digital location, such as a URL, where all the details about the object are accessible. DOI server handles DOI number within an organization, which is composed of several projects

2 - Meta Data Store application

To assign a DOI to document, the following steps are needed :

- Uploads metadata for a DOI to DataCite. metadata contains the DOI name and information describing the DOI. Metadata is based on the DataCite schema.
- Links the DOI name to a landing page
- Optionally, links a DOI name to others URL through a content type.

2 - Cross cite application

A citation is used in scientific articles. According to the scientific articles, the citation formatter is different. This application takes account of the language of the article and the formatting style to format a citation for a specific DOI.

3 - Administration application

An application providing resources for the administration of the DOI server.

fr.cnes.doi.application
Class AbstractApplication

```
java.lang.Object
   │
   +-org.restlet.Restlet
       │
       +-org.restlet.Application
           │
           +-org.restlet.ext.wadl.WadlApplication
               │
               +-fr.cnes.doi.application.AbstractApplication
```

All Implemented Interfaces:
>   org.restlet.Uniform

Direct Known Subclasses:
>   AdminApplication,   DoiMdsApplication,   DoiCrossCiteApplication

---

public abstract class **AbstractApplication**
extends WadlApplication

Creates a base application by setting both the CORS, the DOI status page, the proxy and the DOI.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	**DEFAULT_CORS_CREDENTIALS** If true, adds 'Access-Control-Allow-Credentials' header. Value: **true**
public static final	**DEFAULT_CORS_ORIGIN** Default value of 'Access-Control-Allow-Origin' header.

Constructor Summary

public	**AbstractApplication**() This constructor creates an instance of proxySettings and doiSettings.

Method Summary

org.restlet.security. ChallengeAuthenticato r	**createAuthenticator**() Creates the authenticator based on a HTTP basic.
org.restlet.security. ChallengeAuthenticato r	**createAuthenticatorLoginBased**() Creates the authenticator based on a HTTP basic.
org.restlet.service.C orsService	**createCoreService**(Set corsOrigin, boolean corsCredentials) Defines the CORS service.
org.restlet.represent ation.Representation	**createHtmlRepresentation**(ApplicationInfo applicationInfo) Creates HTML representation of the WADL.

org.restlet.security. ChallengeAuthenticato r	[createTokenAuthenticator]( )() Creates an authentication by token.
[DoiSettings]( )	[getConfig]( )() Returns the configuration of the DOI server.
org.apache.logging.lo g4j.Logger	[getLog]( )() Returns the logger.
[AbstractTokenDBHelper]( )	[getTokenDB]( )() Returns the token database.
void	[sendAlertWhenDataCiteFailed]( )(Exception exception) Sends alert as an email when DataCite failed.

Methods inherited from class `org.restlet.ext.wadl.WadlApplication`

```
attachToComponent, attachToHost, canDescribe, createFinder, createHtmlRepresentation,
createWadlRepresentation, getApplicationInfo, getBaseRef, getPreferredWadlVariant,
getRouter, getWadlVariants, handle, isAutoDescribing, setAutoDescribing, setBaseRef,
wadlRepresent, wadlRepresent
```

Methods inherited from class `org.restlet.Application`

```
createInboundRoot, createOutboundRoot, getConnectorService, getConnegService,
getConverterService, getCurrent, getDecoderService, getEncoderService,
getInboundRoot, getMetadataService, getOutboundRoot, getRangeService, getRole,
getRoles, getServices, getStatusService, getTaskService, getTunnelService, handle,
isDebugging, setConnectorService, setConnegService, setContext, setConverterService,
setCurrent, setDebugging, setDecoderService, setEncoderService, setInboundRoot,
setInboundRoot, setMetadataService, setOutboundRoot, setOutboundRoot,
setRangeService, setRoles, setStatusService, setTaskService, setTunnelService, start,
stop
```

Methods inherited from class `org.restlet.Restlet`

```
createFinder, finalize, getApplication, getAuthor, getContext, getDescription,
getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle,
isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName,
setOwner, start, stop
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Fields

DEFAULT_CORS_ORIGIN

```
public static final java.util.Set DEFAULT_CORS_ORIGIN
```

(continued on next page)

Default value of 'Access-Control-Allow-Origin' header.

DEFAULT_CORS_CREDENTIALS

`public static final boolean **DEFAULT_CORS_CREDENTIALS**`

If true, adds 'Access-Control-Allow-Credentials' header.
Constant value: **true**

Constructors

AbstractApplication

`public **AbstractApplication**()`

This constructor creates an instance of proxySettings and doiSettings. By creating the instance, the constructor creates :

- the CORS service using the default value `DEFAULT_CORS_ORIGIN` and `DEFAULT_CORS_CREDENTIALS`
- the custom status page

See Also:
> CORS
> createCoreService(Set, boolean)

Methods

createCoreService

`protected final org.restlet.service.CorsService **createCoreService**(Set corsOrigin, boolean corsCredentials)`

Defines the CORS service.

Parameters:
> `corsOrigin` - IP that can access to the service
> `corsCredentials` - credentials allowed

Returns:
> CORS service

createAuthenticator

`protected org.restlet.security.ChallengeAuthenticator **createAuthenticator**()`

Creates the authenticator based on a HTTP basic. Creates the user, role and mapping user/role.

Returns:
> Authenticator based on a challenge scheme

createAuthenticatorLoginBased

`protected org.restlet.security.ChallengeAuthenticator **createAuthenticatorLoginBased**()`

Creates the authenticator based on a HTTP basic. Creates the user, role and mapping user/role.

Returns:

(continued from last page)

Authenticator based on a challenge scheme

createTokenAuthenticator

protected org.restlet.security.ChallengeAuthenticator **createTokenAuthenticator**()

Creates an authentication by token.

Returns:
the object that contains the business to check

See Also:
the token verification

createHtmlRepresentation

protected org.restlet.representation.Representation
createHtmlRepresentation(ApplicationInfo applicationInfo)

Creates HTML representation of the WADL.

Parameters:
applicationInfo - Application description

Returns:
the HTML representation of the WADL

sendAlertWhenDataCiteFailed

public void **sendAlertWhenDataCiteFailed**(Exception exception)

Sends alert as an email when DataCite failed.

Parameters:
exception - error message to send

getConfig

protected final DoiSettings **getConfig**()

Returns the configuration of the DOI server.

Returns:
the configuration of the DOI server.

getTokenDB

public AbstractTokenDBHelper **getTokenDB**()

Returns the token database.

Returns:
the token database

getLog

public org.apache.logging.log4j.Logger **getLog**()

Returns the logger.

Returns:
the logger

fr.cnes.doi.application
Class AdminApplication

```
java.lang.Object
    │
    +-org.restlet.Restlet
        │
        +-org.restlet.Application
            │
            +-org.restlet.ext.wadl.WadlApplication
                │
                +-fr.cnes.doi.application.AbstractApplication
                    │
                    +-fr.cnes.doi.application.AdminApplication
```

All Implemented Interfaces:
> org.restlet.Uniform

---

public final class **AdminApplication**
extends AbstractApplication

Provides an application for handling features related to the administration system of the DOI server. The administration application provides the following features:

- An asynchronous task to check the availability of created landing pages each #PERIOD_SCHEDULER days
- The form for creating DOI
- The Datacite status page to check Datacite services availability
- The Datacite stats page
- A service to create random string as a part of the DOI suffix
- A token service for creating token and to get token information

Security

 The authentication is done by a simple login/password. Only users having the group "admin" will be allowed to log in to this application.
 The website for creating DOI is opened on the net whereas the others services are filtered by IP. The allowed IPs are localhost and the IPs defined in fr.cnes.doi.settings.Consts#ADMIN_IP_ALLOWER attribute from the configuration file

Routing
----
 root (DOI creation web form - no authorization)
 |
 |__ resources (status page - no authorization)
 |__ status (Datacite status page - authorization)
 |__ stats (Datacite stats page - authorization)
 |
 |_ _____
 |_|***********|____ suffixProject (Get a random suffix - authorization)
 |_|IP_filtering|____ token (Create a token - authorization)
 |_|_____|____ token/{tokenID} (Get token information - authorization)

Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

See Also:
> Datacite status page, Datacite stats page, Creating a project suffix for DOI, Creating a token and getting information about a token

---

Field Summary

---

public static final	**ADMIN_URI** URI #ADMIN_URI to access to the resources of the system administration. Value: **/admin**	
public static final	**API_URI** URI #API_URI to get the API doc. Value: **/docs**	
public static final	**DOIS_URI** URI #DOIS_URI to get dois from a specific project. Value: **/dois**	
public static final	**IHM_URI** URI #IHM_URI where the web site is located. Value: **/ihm**	
public static final	**NAME** Application name. Value: **Admin Application**	
public static final	**RESOURCE_URI** URI #RESOURCE_URI to access to the resources of the status page. Value: **/resources**	
public static final	**ROLE_ADMIN_URI** URI #ROLE_ADMIN_URI to check admin access rights. Value: **/roles/admin**	
public static final	**ROLE_USERS_URI** URI #ROLE_USERS_URI to check access rights. Value: **/roles/users**	
public static final	**STATS_URI** URI #STATS_URI to access to Stats page. Value: **/stats**	
public static final	**STATUS_URI** URI #STATUS_URI to access to the status page. Value: **/status**	
public static final	**SUFFIX_PROJECT_NAME** URI #SUFFIX_PROJECT_NAME to manage a project suffix. Value: **/{suffixProject}**	
public static final	**SUFFIX_PROJECT_NAME_TEMPLATE** Project suffix template. Value: **suffixProject**	
public static final	**SUFFIX_PROJECT_URI** URI #SUFFIX_PROJECT_URI to create a project suffix. Value: **/projects**	
public static final	**SUPERUSERS_URI** URI #SUPERUSERS_URI to handle superusers. Value: **/superusers**	

public static final	TOKEN_NAME_URI URI #TOKEN_NAME_URIÂ to handle to get information from a token. Value: **/{tokenID}**
public static final	TOKEN_TEMPLATE Token template. Value: **tokenID**
public static final	TOKEN_URI URI #TOKEN_URI to create a token. Value: **/token**
public static final	USERS_NAME URI #USERS_NAME to handle user. Value: **/{userName}**
public static final	USERS_NAME_TEMPLATE Template user. Value: **userName**
public static final	USERS_URI URI #USERS_URI to handle users. Value: **/users**

Fields inherited from class fr.cnes.doi.application.AbstractApplication

DEFAULT_CORS_CREDENTIALS, DEFAULT_CORS_ORIGIN

Constructor Summary

public	AdminApplication() Constructor.

Method Summary

org.restlet.Restlet	createInboundRoot() Creates a router for the AdminApplication.
org.apache.logging.lo g4j.Logger	getLog() Returns the logger.

Methods inherited from class fr.cnes.doi.application.AbstractApplication

createAuthenticator, createAuthenticatorLoginBased, createCoreService,
createHtmlRepresentation, createTokenAuthenticator, getConfig, getLog, getTokenDB,
sendAlertWhenDataCiteFailed

Methods inherited from class org.restlet.ext.wadl.WadlApplication

attachToComponent, attachToHost, canDescribe, createFinder, createHtmlRepresentation,
createWadlRepresentation, getApplicationInfo, getBaseRef, getPreferredWadlVariant,
getRouter, getWadlVariants, handle, isAutoDescribing, setAutoDescribing, setBaseRef,
wadlRepresent, wadlRepresent

Methods inherited from class org.restlet.Application

```
createInboundRoot, createOutboundRoot, getConnectorService, getConnegService,
getConverterService, getCurrent, getDecoderService, getEncoderService,
getInboundRoot, getMetadataService, getOutboundRoot, getRangeService, getRole,
getRoles, getServices, getStatusService, getTaskService, getTunnelService, handle,
isDebugging, setConnectorService, setConnegService, setContext, setConverterService,
setCurrent, setDebugging, setDecoderService, setEncoderService, setInboundRoot,
setInboundRoot, setMetadataService, setOutboundRoot, setOutboundRoot,
setRangeService, setRoles, setStatusService, setTaskService, setTunnelService, start,
stop
```

Methods inherited from class `org.restlet.Restlet`

```
createFinder, finalize, getApplication, getAuthor, getContext, getDescription,
getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle,
isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName,
setOwner, start, stop
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Fields

NAME

public static final java.lang.String **NAME**

Application name.
Constant value: **Admin Application**

ADMIN_URI

public static final java.lang.String **ADMIN_URI**

URI #ADMIN_URI to access to the resources of the system administration.
Constant value: **/admin**

RESOURCE_URI

public static final java.lang.String **RESOURCE_URI**

URI #RESOURCE_URI to access to the resources of the status page.
Constant value: **/resources**

STATUS_URI

public static final java.lang.String **STATUS_URI**

URI #STATUS_URI to access to the status page.
Constant value: **/status**

STATS_URI

public static final java.lang.String **STATS_URI**

URI #STATS_URI to access to Stats page.
Constant value: **/stats**

ROLE_USERS_URI

public static final java.lang.String **ROLE_USERS_URI**

URI #ROLE_USERS_URI to check access rights.
Constant value: **/roles/users**

ROLE_ADMIN_URI

public static final java.lang.String **ROLE_ADMIN_URI**

URI #ROLE_ADMIN_URI to check admin access rights.
Constant value: **/roles/admin**

SUFFIX_PROJECT_URI

public static final java.lang.String **SUFFIX_PROJECT_URI**

URI #SUFFIX_PROJECT_URI to create a project suffix.
Constant value: **/projects**

SUFFIX_PROJECT_NAME_TEMPLATE

public static final java.lang.String **SUFFIX_PROJECT_NAME_TEMPLATE**

Project suffix template.
Constant value: **suffixProject**

SUFFIX_PROJECT_NAME

public static final java.lang.String **SUFFIX_PROJECT_NAME**

URI #SUFFIX_PROJECT_NAME to manage a project suffix.
Constant value: **/{suffixProject}**

DOIS_URI

public static final java.lang.String **DOIS_URI**

URI #DOIS_URI to get dois from a specific project.
Constant value: **/dois**

USERS_URI

public static final java.lang.String **USERS_URI**

URI #USERS_URI to handle users.
Constant value: **/users**

SUPERUSERS_URI

`public static final java.lang.String `**`SUPERUSERS_URI`**

URI #SUPERUSERS_URI to handle superusers.
Constant value: **`/superusers`**

API_URI

`public static final java.lang.String `**`API_URI`**

URI #API_URI to get the API doc.
Constant value: **`/docs`**

USERS_NAME_TEMPLATE

`public static final java.lang.String `**`USERS_NAME_TEMPLATE`**

Template user.
Constant value: **`userName`**

USERS_NAME

`public static final java.lang.String `**`USERS_NAME`**

URI #USERS_NAME to handle user.
Constant value: **`/{userName}`**

TOKEN_URI

`public static final java.lang.String `**`TOKEN_URI`**

URI #TOKEN_URI to create a token.
Constant value: **`/token`**

TOKEN_TEMPLATE

`public static final java.lang.String `**`TOKEN_TEMPLATE`**

Token template.
Constant value: **`tokenID`**

TOKEN_NAME_URI

`public static final java.lang.String `**`TOKEN_NAME_URI`**

URI #TOKEN_NAME_URIÂ to handle to get information from a token.
Constant value: **`/{tokenID}`**

IHM_URI

`public static final java.lang.String `**`IHM_URI`**

URI #IHM_URI where the web site is located.
Constant value: **`/ihm`**

Constructors

AdminApplication

public **AdminApplication**()

> Constructor.

Methods

createInboundRoot

public org.restlet.Restlet **createInboundRoot**()

> Creates a router for the AdminApplication. This router routes :
>
> - the web resources for the website with no authentication
> - the REST resources for the system administration with authentication/authorization
>
> The web resources are attached by default to the AdminApplication where as the REST resources for the system administration are attached with the `ADMIN_URI`
>
> **Returns:**
> > Router
>
> **See Also:**
> > ```
> > the router that contains the the web resources
> > the router that contains the REST resources
> > ```
> > the authentication mechanism
> > ```
> > the authorization mechanism
> > ```

getLog

public org.apache.logging.log4j.Logger **getLog**()

> Returns the logger.
>
> **Returns:**
> > the logger

fr.cnes.doi.application
Class DoiCrossCiteApplication

```
java.lang.Object
    |
    +-org.restlet.Restlet
        |
        +-org.restlet.Application
            |
            +-org.restlet.ext.wadl.WadlApplication
                |
                +-fr.cnes.doi.application.AbstractApplication
                    |
                    +-fr.cnes.doi.application.DoiCrossCiteApplication
```

All Implemented Interfaces:
>   org.restlet.Uniform

---

public final class **DoiCrossCiteApplication**
extends AbstractApplication

Provides an application to get citation from a registered DOI. Books and journal articles have long benefited from an infrastructure that makes them easy to cite, a key element in the process of research and academic discourse. In this mind, a data should cited in just the same way. DataCite DOIs help further research and assures reliable, predictable, and unambiguous access to research data in order to:

- support proper attribution and credit
- support collaboration and reuse of data
- enable reproducibility of findings
- foster faster and more efficient research progress, and
- provide the means to share data with future researchers

DataCite also looks to community practices that provide data citation guidance. The Joint Declaration of Data Citation Principles is

a set of guiding principles for data within scholarly literature, another dataset, or any other research object (Data Citation Synthesis

Group 2014).

The FAIR Guiding Principles provide a guideline for the those that want to enhance reuse of their data (Wilkinson 2016).

Security
>   --------------
>   No authentication / no autorisation

Routing
```
 --------------
 root
 |
 |__ style
 |__ language
 |__ format
```
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

See Also:
>   Making a citation

Field Summary

---

public static final	FORMAT_URI
	URI #FORMAT_URI to retrieves the citation. Value: **/format**
public static final	LANGUAGE_URI
	URI #LANGUAGE_URIÂ to get the languages, which are used to format the citation. Value: **/language**
public static final	NAME
	Application name. Value: **Cross Cite Application**
public static final	STYLES_URI
	URI #STYLES_URI to get the styles, which are used to format the citation. Value: **/style**

Fields inherited from class `fr.cnes.doi.application.AbstractApplication`

`DEFAULT_CORS_CREDENTIALS`, `DEFAULT_CORS_ORIGIN`

Constructor Summary

public	DoiCrossCiteApplication()
	Constructs the application.

Method Summary

org.restlet.Restlet	createInboundRoot()
	Creates router the DOICrossCiteApplication.
ClientCrossCiteCitation	getClient()
	Returns the client to query cross cite.
org.apache.logging.log4j.Logger	getLog()
	Returns the logger.

Methods inherited from class `fr.cnes.doi.application.AbstractApplication`

`createAuthenticator`, `createAuthenticatorLoginBased`, `createCoreService`, `createHtmlRepresentation`, `createTokenAuthenticator`, `getConfig`, `getLog`, `getTokenDB`, `sendAlertWhenDataCiteFailed`

Methods inherited from class `org.restlet.ext.wadl.WadlApplication`

`attachToComponent, attachToHost, canDescribe, createFinder, createHtmlRepresentation, createWadlRepresentation, getApplicationInfo, getBaseRef, getPreferredWadlVariant, getRouter, getWadlVariants, handle, isAutoDescribing, setAutoDescribing, setBaseRef, wadlRepresent, wadlRepresent`

Methods inherited from class `org.restlet.Application`

```
createInboundRoot, createOutboundRoot, getConnectorService, getConnegService,
getConverterService, getCurrent, getDecoderService, getEncoderService,
getInboundRoot, getMetadataService, getOutboundRoot, getRangeService, getRole,
getRoles, getServices, getStatusService, getTaskService, getTunnelService, handle,
isDebugging, setConnectorService, setConnegService, setContext, setConverterService,
setCurrent, setDebugging, setDecoderService, setEncoderService, setInboundRoot,
setInboundRoot, setMetadataService, setOutboundRoot, setOutboundRoot,
setRangeService, setRoles, setStatusService, setTaskService, setTunnelService, start,
stop
```

Methods inherited from class `org.restlet.Restlet`

```
createFinder, finalize, getApplication, getAuthor, getContext, getDescription,
getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle,
isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName,
setOwner, start, stop
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Fields

STYLES_URI

public static final java.lang.String **STYLES_URI**

URI #STYLES_URI to get the styles, which are used to format the citation.
Constant value: **/style**

LANGUAGE_URI

public static final java.lang.String **LANGUAGE_URI**

URI #LANGUAGE_URIÂ to get the languages, which are used to format the citation.
Constant value: **/language**

FORMAT_URI

public static final java.lang.String **FORMAT_URI**

URI #FORMAT_URI to retrieves the citation.
Constant value: **/format**

NAME

public static final java.lang.String **NAME**

Application name.
Constant value: **Cross Cite Application**

Constructors

DoiCrossCiteApplication

public **DoiCrossCiteApplication**()

> Constructs the application.

Methods

createInboundRoot

public org.restlet.Restlet **createInboundRoot**()

> Creates router the DOICrossCiteApplication. This routes routes the following resources:
>
> - STYLES_URI to access to the different styles for a citation
> - LANGUAGE_URI to access to the different languages for a citation
> - FORMAT_URI to access to the formatted citation
>
>
> **Returns:**
> > router

getClient

public ClientCrossCiteCitation **getClient**()

> Returns the client to query cross cite.
>
> **Returns:**
> > the client

getLog

public org.apache.logging.log4j.Logger **getLog**()

> Returns the logger.
>
> **Returns:**
> > the logger

fr.cnes.doi.application
Class DoiMdsApplication

```
java.lang.Object
    |
    +-org.restlet.Restlet
        |
        +-org.restlet.Application
            |
            +-org.restlet.ext.wadl.WadlApplication
                |
                +-fr.cnes.doi.application.AbstractApplication
                    |
                    +-fr.cnes.doi.application.DoiMdsApplication
```

All Implemented Interfaces:
>   org.restlet.Uniform

---

public final class **DoiMdsApplication**
extends AbstractApplication

Provides an application to handle Data Object Identifier within an organization. A Digital Object Identifier (DOI) is a persistent identifier or handle used to uniquely identify objects, standardized by the International Organization. A DOI aims to be "resolvable", usually to some form of access to the information object to which the DOI refers. This is achieved by binding the DOI to metadata about the object, such as a URL, where all the details about the object are accessible. Everytime a URL changes, the publisher has to update the metadata for the DOI to link to the new URL. It is the publisher's responsibility to update the DOI database. If he fails to do so, the DOI resolves to a dead link leaving the DOI useless.

Two methods of authentication are defined in this application and both is optional:

- `authenticator` by login/password
- `authenticator` by `token`

Only the GET can be anonymous whereas POST, PUT, DELETE `methods need to be authenticated.`

Security
```
--------------
 The authentication is done by the following pipeline:
 |Method authorization|-->|Authentication login/pwd|-->|Authentication token|
 Method authorization : Only GET method does not need an authorization
```

Routing
```
--------------
 root
 |
 |__ dois (authorization)
 |__ dois/{doiName} (authorization)
 |__ metadata (authorization)
 |__ metadata/{doiName} (authorization)
 |__ media/{doiName} (authorization)
```

Author:
>   Jean-Christophe Malapert (jean-Christophe Malapert@cnes.fr)

See Also:
>   `the resources related to this application`, DOI Handbook, API Documentation, `List and create DOI`, `Handle a DOI`, `Create metadata`, `Handle DOI metadata`, `Handle media related to metadata`

Nested Class Summary

class	`DoiMdsApplication.API_MDS` DoiMdsApplication.API_MDS

---

class	**DoiMdsApplication.SecurityPostProcessingFilter** DoiMdsApplication.SecurityPostProcessingFilter

Field Summary

public static final	**DOI_NAME_URI** URI to handle a DOI : #DOI_NAME_URI. Value: **/{doiName}**
public static final	**DOI_TEMPLATE** Template Query for DOI : #DOI_TEMPLATE. Value: **doiName**
public static final	**DOI_URI** URI to handle the collection of DOIs : #DOI_URI. Value: **/dois**
public static final	**MEDIA_URI** URI to handle media : #MEDIA_URI. Value: **/media**
public static final	**METADATAS_URI** URI to handle metadata : #METADATAS_URI. Value: **/metadata**
public static final	**NAME** Application name : #NAME Value: **Metadata Store Application**

Fields inherited from class **fr.cnes.doi.application.AbstractApplication**

DEFAULT_CORS_CREDENTIALS, **DEFAULT_CORS_ORIGIN**

Constructor Summary

public	**DoiMdsApplication**() Creates the Digital Object Identifier server application.

Method Summary

org.restlet.Restlet	**createInboundRoot**() Creates a router for the DoiMdsApplication.
ApplicationInfo	**getApplicationInfo**(org.restlet.Request request, org.restlet.Response response) Method to describe application in the WADL.
ClientMDS	**getClient**() Returns the client.
ClientSearchDataCite	**getClientSearch**() Returns the client.
String	**getDataCentrePrefix**() Returns the DOI prefix.

org.apache.logging.lo g4j.Logger	getLog() Returns the logger.
AbstractTokenDBHelper	getTokenDB() Returns the token database.

Methods inherited from class fr.cnes.doi.application.AbstractApplication

createAuthenticator, createAuthenticatorLoginBased, createCoreService, createHtmlRepresentation, createTokenAuthenticator, getConfig, getLog, getTokenDB, sendAlertWhenDataCiteFailed

Methods inherited from class org.restlet.ext.wadl.WadlApplication

attachToComponent, attachToHost, canDescribe, createFinder, createHtmlRepresentation, createWadlRepresentation, getApplicationInfo, getBaseRef, getPreferredWadlVariant, getRouter, getWadlVariants, handle, isAutoDescribing, setAutoDescribing, setBaseRef, wadlRepresent, wadlRepresent

Methods inherited from class org.restlet.Application

createInboundRoot, createOutboundRoot, getConnectorService, getConnegService, getConverterService, getCurrent, getDecoderService, getEncoderService, getInboundRoot, getMetadataService, getOutboundRoot, getRangeService, getRole, getRoles, getServices, getStatusService, getTaskService, getTunnelService, handle, isDebugging, setConnectorService, setConnegService, setContext, setConverterService, setCurrent, setDebugging, setDecoderService, setEncoderService, setInboundRoot, setInboundRoot, setMetadataService, setOutboundRoot, setOutboundRoot, setRangeService, setRoles, setStatusService, setTaskService, setTunnelService, start, stop

Methods inherited from class org.restlet.Restlet

createFinder, finalize, getApplication, getAuthor, getContext, getDescription, getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle, isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName, setOwner, start, stop

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface org.restlet.Uniform

handle

Fields

DOI_TEMPLATE

public static final java.lang.String **DOI_TEMPLATE**

Template Query for DOI : #DOI_TEMPLATE.
Constant value: **doiName**

DOI_URI

`public static final java.lang.String` **`DOI_URI`**

URI to handle the collection of DOIs : #DOI_URI.
Constant value: **`/dois`**

DOI_NAME_URI

`public static final java.lang.String` **`DOI_NAME_URI`**

URI to handle a DOI : #DOI_NAME_URI.
Constant value: **`/{doiName}`**

METADATAS_URI

`public static final java.lang.String` **`METADATAS_URI`**

URI to handle metadata : #METADATAS_URI.
Constant value: **`/metadata`**

MEDIA_URI

`public static final java.lang.String` **`MEDIA_URI`**

URI to handle media : #MEDIA_URI.
Constant value: **`/media`**

NAME

`public static final java.lang.String` **`NAME`**

Application name : #NAME
Constant value: **`Metadata Store Application`**

Constructors

DoiMdsApplication

`public` **`DoiMdsApplication`**`()`

Creates the Digital Object Identifier server application.

Throws:

[DoiRuntimeException](#) - When the DataCite schema is not available

Methods

createInboundRoot

`public org.restlet.Restlet` **`createInboundRoot`**`()`

Creates a router for the DoiMdsApplication. This router routes the resources for the Mds application, which is protected by two authentication mechanisms (optional mechanisms) and an authorization by method.

Returns:

Router

See Also:
```
    the router that contains the Mds resources
    the authentication mechanism by login/password
    the authentication mechanism by token
    the method authorization mechanism
```

getDataCentrePrefix

```
public String getDataCentrePrefix()
```

Returns the DOI prefix.

Returns:
the DOI prefix

getClient

```
public ClientMDS getClient()
```

Returns the client.

Returns:
the client

getClientSearch

```
public ClientSearchDataCite getClientSearch()
```

Returns the client.

Returns:
the client

getTokenDB

```
public AbstractTokenDBHelper getTokenDB()
```

Returns the token database.

Returns:
the token database

getLog

```
public org.apache.logging.log4j.Logger getLog()
```

Returns the logger.

Returns:
the logger

getApplicationInfo

```
public final ApplicationInfo getApplicationInfo(org.restlet.Request request,
        org.restlet.Response response)
```

Method to describe application in the WADL.

Parameters:

`request` - Request

`response` - Response

Returns:

the application description for WADL

fr.cnes.doi.application
Class DoiMdsApplication.SecurityPostProcessingFilter

```
java.lang.Object
    │
    +-org.restlet.Restlet
        │
        +-org.restlet.routing.Filter
            │
            +-fr.cnes.doi.application.DoiMdsApplication.SecurityPostProcessingFilter
```

All Implemented Interfaces:
        org.restlet.Uniform

---

public static class **DoiMdsApplication.SecurityPostProcessingFilter**
extends org.restlet.routing.Filter

Post processing for specific authorization. Specific class to handle the case where the user is authorized by oauth but non authorized by the service because the user's role is not related to any projects

---

Fields inherited from class `org.restlet.routing.Filter`

CONTINUE, SKIP, STOP

Constructor Summary

public	[SecurityPostProcessingFilter](org.restlet.Context context, org.restlet.Restlet next) Constructor

Method Summary

void	[afterHandle](org.restlet.Request request, org.restlet.Response response) Fixed problem with Jetty response.

Methods inherited from class `org.restlet.routing.Filter`

afterHandle, beforeHandle, doHandle, getNext, handle, hasNext, setNext, setNext, start, stop

Methods inherited from class `org.restlet.Restlet`

createFinder, finalize, getApplication, getAuthor, getContext, getDescription, getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle, isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName, setOwner, start, stop

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `org.restlet.Uniform`

handle

Constructors

SecurityPostProcessingFilter

```
public SecurityPostProcessingFilter(org.restlet.Context context,
                                    org.restlet.Restlet next)
```

Constructor

Parameters:
context - context
next - gard

Methods

afterHandle

```
protected void afterHandle(org.restlet.Request request,
        org.restlet.Response response)
```

Fixed problem with Jetty response.

Parameters:
request - request
response - response

fr.cnes.doi.application
Class DoiMdsApplication.API_MDS

```
java.lang.Object
    │
    +-java.lang.Enum
        │
        +-fr.cnes.doi.application.DoiMdsApplication.API_MDS
```

All Implemented Interfaces:
Serializable, Comparable

---

public static final class **DoiMdsApplication.API_MDS**
extends Enum

API related only to the code in this webservice. Other codes can be returned by the `ClientMDS`

Field Summary

public static final	CREATE_METADATA Create metadata.
public static final	DATACITE_PROBLEM Internal server error.
public static final	DOI_VALIDATION DOI validation error.
public static final	LANGING_PAGE_VALIDATION Fail to create the landing page related to the DOI.
public static final	MEDIA_VALIDATION Fail to create the media related to the DOI.
public static final	METADATA_VALIDATION Fail to validate user input parameter for creating the DOI.
public static final	NETWORK_PROBLEM Cannot access to Datacite.
public static final	SECURITY_USER_CONFLICT Fail to know privileges of a user.
public static final	SECURITY_USER_NO_ROLE Fail to authorize the user.
public static final	SECURITY_USER_NOT_IN_SELECTED_ROLE Forbidden to use this role.
public static final	SECURITY_USER_PERMISSION Fail to create a DOI.

Method Summary

String	getShortMessage() Returns the short message.

org.restlet.data.Status	getStatus() Returns the status
static DoiMdsApplication.API_MDS	valueOf(String name)
static DoiMdsApplication.API_MDS[]	values()

Methods inherited from class `java.lang.Enum`

```
clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal,
toString, valueOf
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.lang.Comparable`

```
compareTo
```

Fields

CREATE_METADATA

public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS **CREATE_METADATA**

Create metadata. SUCCESS_CREATED is used as status meaning "Operation successful"

SECURITY_USER_NOT_IN_SELECTED_ROLE

public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS
SECURITY_USER_NOT_IN_SELECTED_ROLE

Forbidden to use this role. It happens when a user provides a role to the server whereas he is unknown in this role.
CLIENT_ERROR_FORBIDDEN is used as status meaning "Forbidden to use this role"

SECURITY_USER_NO_ROLE

public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS
SECURITY_USER_NO_ROLE

Fail to authorize the user. It happens when a client is authentified but unauthorized to use the resource.
CLIENT_ERROR_UNAUTHORIZED is used as status meaning "Fail to authorize the user"

SECURITY_USER_CONFLICT

public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS
SECURITY_USER_CONFLICT

Fail to know privileges of a user. It happens when an user is associated to several roles without selecting one.
CLIENT_ERROR_CONFLICT is used as status meaning "Error when an user is associated to more than one role without
setting selectedRole parameter"

SECURITY_USER_PERMISSION

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS
SECURITY_USER_PERMISSION
```

Fail to create a DOI. It happens when a user try to create a DOI with the wrong role. Actually, the role is contained in the DOI name. So if a user is authentified with a right role and try to create a DOI for another role, an exception is raised. SECURITY_USER_PERMISSION is used as status meaning "User is not allowed to make this operation"

NETWORK_PROBLEM

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS NETWORK_PROBLEM
```

Cannot access to Datacite. It happens when a network problem may happen with Datacite. SERVER_ERROR_GATEWAY_TIMEOUT is used as status meaning "Cannot access to Datacite"

METADATA_VALIDATION

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS
METADATA_VALIDATION
```

Fail to validate user input parameter for creating the DOI. It happens in the following cases:

- the DOI or metadata are not provided
- the prefix is not allowed
- some characters are not allowed in the DOI name

CLIENT_ERROR_BAD_REQUEST is used as status meaning "Failed to validate the user inputs parameters"

MEDIA_VALIDATION

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS MEDIA_VALIDATION
```

Fail to create the media related to the DOI. CLIENT_ERROR_BAD_REQUEST is used as status meaning "DOI not provided or one or more of the specified mime-types or urls are invalid (e.g. non supported mime-type, not allowed url domain, etc.)"

LANGING_PAGE_VALIDATION

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS
LANGING_PAGE_VALIDATION
```

Fail to create the landing page related to the DOI. CLIENT_ERROR_BAD_REQUEST is used as status meaning "Validation error when defining the DOI and its landing page"

DOI_VALIDATION

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS DOI_VALIDATION
```

DOI validation error. CLIENT_ERROR_BAD_REQUEST is used as status meaning "Character or prefix not allowed in the DOI"

DATACITE_PROBLEM

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS DATACITE_PROBLEM
```

Internal server error. Fail to communicate with DataCite using the interface specification meaning "Interface problem between Datacite and DOI-Server"

Methods

values

public static [DoiMdsApplication.API_MDS[]](#) **values**()

valueOf

public static [DoiMdsApplication.API_MDS](#) **valueOf**(String name)

getStatus

public org.restlet.data.Status **getStatus**()

Returns the status

Returns:
the status

getShortMessage

public String **getShortMessage**()

Returns the short message.

Returns:
the short message

Package
fr.cnes.doi.client

Provides classes to request external web services. This package contains mainly :

- a `client` to request CrossCite service to get citation from an existing DOI name
- a `client` to request DataCite service to handle DOI.
- a `client` to request DataCite service to search DOI.

fr.cnes.doi.client
Class BaseClient

```
java.lang.Object
    |
    +-fr.cnes.doi.client.BaseClient
```

Direct Known Subclasses:
ClientSearchDataCite, ClientLandingPage, ClientCrossCiteCitation, ClientMDS

---

public class **BaseClient**
extends Object

Base client
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	DATACITE_MOCKSERVER_PORT Port of the Datacite mockserver Value: **1080**

Constructor Summary

public	BaseClient(String uri) Constructor.

Method Summary

org.restlet.resource. ClientResource	getClient() Returns the client.
org.apache.logging.lo g4j.Logger	getLog() Returns the logger.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Fields

DATACITE_MOCKSERVER_PORT

public static final int **DATACITE_MOCKSERVER_PORT**

Port of the Datacite mockserver
Constant value: **1080**

Constructors

BaseClient

```
public BaseClient(String uri)
```

Constructor.

Parameters:
    uri - URI of the client's end point

Methods

getClient

```
public final org.restlet.resource.ClientResource getClient()
```

Returns the client.

Returns:
    the client

getLog

```
public org.apache.logging.log4j.Logger getLog()
```
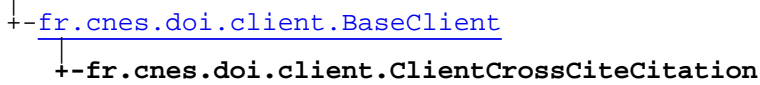
Returns the logger.

Returns:
    the logger

```
public BaseClient(String uri)
```

fr.cnes.doi.client
Class ClientCrossCiteCitation

```
java.lang.Object
    │
    +-fr.cnes.doi.client.BaseClient
         │
         +-fr.cnes.doi.client.ClientCrossCiteCitation
```

public class **ClientCrossCiteCitation**
extends BaseClient

Client to query the citation service. This class queries CrossCite.
Author:
> Jean-Christophe Malapert (Jean-Christophe.malapert@cnes.fr)

Nested Class Summary

class	ClientCrossCiteCitation.Context
	ClientCrossCiteCitation.Context

Field Summary

public static final	CROSS_CITE_MOCK_URL
	Service end point #CROSS_CITE_MOCK_URL. Value: **http://localhost:1080**
public static final	CROSS_CITE_URL
	Service end point #CROSS_CITE_URL. Value: **http://citation.crosscite.org**
public static final	FORMAT_URI
	URI to get format #FORMAT_URI. Value: **format**
public static final	LOCALE_URI
	URI to get locales #LOCALE_URI. Value: **locales**
public static final	STYLE_URI
	URI to get styles #STYLE_URI. Value: **styles**

Fields inherited from class `fr.cnes.doi.client.BaseClient`

`DATACITE_MOCKSERVER_PORT`

Constructor Summary

public	ClientCrossCiteCitation()
	Creates a client to CROSS_CITE_URL with a prod context and without a proxy.
public	ClientCrossCiteCitation(ClientCrossCiteCitation.Context context)
	Creates a client to an URI related to the context.

Method Summary

String	**getFormat**(String doiName, String style, String language) 　　Returns the citation of a DOI based on the selected style and language.
List	**getLanguages**() 　　Returns languages by calling #LOCALE_URI.
List	**getStyles**() 　　Returns styles by calling #STYLE_URI.
void	**init**() 　　Init the endpoint.

Methods inherited from class `fr.cnes.doi.client.BaseClient`

`getClient`, `getLog`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

CROSS_CITE_URL

public static final java.lang.String **CROSS_CITE_URL**

> Service end point #CROSS_CITE_URL.
> Constant value: **http://citation.crosscite.org**

CROSS_CITE_MOCK_URL

public static final java.lang.String **CROSS_CITE_MOCK_URL**

> Service end point #CROSS_CITE_MOCK_URL.
> Constant value: **http://localhost:1080**

STYLE_URI

public static final java.lang.String **STYLE_URI**

> URI to get styles #STYLE_URI.
> Constant value: **styles**

LOCALE_URI

public static final java.lang.String **LOCALE_URI**

> URI to get locales #LOCALE_URI.
> Constant value: **locales**

FORMAT_URI

public static final java.lang.String **FORMAT_URI**

> URI to get format #FORMAT_URI.
> Constant value: **format**

Constructors

ClientCrossCiteCitation

public **ClientCrossCiteCitation**()

> Creates a client to CROSS_CITE_URL with a prod context and without a proxy.

ClientCrossCiteCitation

public **ClientCrossCiteCitation**(ClientCrossCiteCitation.Context context)

> Creates a client to an URI related to the context.

> **Parameters:**
> context - context

Methods

init

protected void **init**()

> Init the endpoint.

getStyles

public List **getStyles**()
  throws ClientCrossCiteException

> Returns styles by calling #STYLE_URI.

> **Returns:**
> list of possible styles

> **Throws:**
> fr.cnes.doi.exception.ClientCrossCiteException - Will thrown an Exception when a problem happens during the request to Cross Cite

getLanguages

public List **getLanguages**()
  throws ClientCrossCiteException

> Returns languages by calling #LOCALE_URI.

> **Returns:**
> List of possible languages

> **Throws:**
> fr.cnes.doi.exception.ClientCrossCiteException - Will thrown an Exception when a problem happens during the request to Cross Cite

getFormat

```
public String getFormat(String doiName,
        String style,
        String language)
  throws ClientCrossCiteException
```

Returns the citation of a DOI based on the selected style and language.

Parameters:
doiName - DOI name
style - Selected style to format the citation
language - Selected language to format the citation

Returns:
The formatted citation

Throws:
fr.cnes.doi.exception.ClientCrossCiteException - Will thrown an Exception when a problem happens during the request to Cross Cite

fr.cnes.doi.client
Class ClientCrossCiteCitation.Context

```
java.lang.Object
    │
    +-java.lang.Enum
        │
        +-fr.cnes.doi.client.ClientCrossCiteCitation.Context
```

All Implemented Interfaces:
   Serializable, Comparable

---

public static final class **ClientCrossCiteCitation.Context**
extends Enum

Options for each context.

Field Summary

public static final	[DEV](#) Development context.
public static final	[POST_DEV](#) Post development context.
public static final	[PRE_PROD](#) Pre production context.
public static final	[PROD](#) Production context.

Method Summary

String	[getCrossCiteUrl](#)() Returns the service end point.
Level	[getLevelLog](#)() Returns the log level.
static void	[setCrossCiteUrl](#)([ClientCrossCiteCitation.Context](#) context, String crossCiteUrl) Sets the Cross Cite URL for a given context
static void	[setLevelLog](#)([ClientCrossCiteCitation.Context](#) context, Level levelLog) Sets the level log for a given context
static [ClientCrossCiteCitation.Context](#)	[valueOf](#)(String name)
static [ClientCrossCiteCitation.Context[]](#)	[values](#)()

Methods inherited from class java.lang.Enum

```
clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal,
toString, valueOf
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.lang.Comparable`

```
compareTo
```

Fields

DEV

public static final fr.cnes.doi.client.ClientCrossCiteCitation.Context **DEV**

Development context. This context uses the ClientCrossCiteCitation.CROSS_CITE_MOCK_URL end point with a log level sets to OFF.

POST_DEV

public static final fr.cnes.doi.client.ClientCrossCiteCitation.Context **POST_DEV**

Post development context. This context uses the ClientCrossCiteCitation.CROSS_CITE_URL end point with a log level sets to ALL.

PRE_PROD

public static final fr.cnes.doi.client.ClientCrossCiteCitation.Context **PRE_PROD**

Pre production context. This context uses the ClientCrossCiteCitation.CROSS_CITE_URL end point with a log level sets to FINE.

PROD

public static final fr.cnes.doi.client.ClientCrossCiteCitation.Context **PROD**

Production context. This context uses the ClientCrossCiteCitation.CROSS_CITE_URL end point with a log level sets to INFO.

Methods

values

public static ClientCrossCiteCitation.Context[] **values**()

valueOf

public static ClientCrossCiteCitation.Context **valueOf**(String name)

getLevelLog

```
public Level getLevelLog()
```

Returns the log level.

Returns:
the log level

getCrossCiteUrl

```
public String getCrossCiteUrl()
```

Returns the service end point.

Returns:
the service end point

setLevelLog

```
public static void setLevelLog(ClientCrossCiteCitation.Context context,
        Level levelLog)
```

Sets the level log for a given context

Parameters:
context - the context
levelLog - the level log

setCrossCiteUrl

```
public static void setCrossCiteUrl(ClientCrossCiteCitation.Context context,
        String crossCiteUrl)
```

Sets the Cross Cite URL for a given context

Parameters:
context - the context
crossCiteUrl - Cross Cite URL

fr.cnes.doi.client
Class ClientLandingPage

```
java.lang.Object
    |
    +-fr.cnes.doi.client.BaseClient
        |
        +-fr.cnes.doi.client.ClientLandingPage
```

public class **ClientLandingPage**
extends BaseClient

Checks the status of the landing page.
Author:
　　Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.client.BaseClient`

`DATACITE_MOCKSERVER_PORT`

Constructor Summary

public	`ClientLandingPage`(List dois) Constructor

Method Summary

Map	`getErrors`() Returns the errors.
boolean	`isError`() Returns True when there is more than zero error otherwise False
boolean	`isSuccess`() Returns true when there is no error otherwise False.

Methods inherited from class `fr.cnes.doi.client.BaseClient`

`getClient`, `getLog`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Constructors

ClientLandingPage

public **ClientLandingPage**(List dois)

　　Constructor

Parameters:
> `dois` - List of DOIs to check

Methods

isSuccess

`public boolean` **`isSuccess`**`()`

> Returns true when there is no error otherwise False.

> **Returns:**
> > true when there is no error otherwise False

isError

`public boolean` **`isError`**`()`

> Returns True when there is more than zero error otherwise False

> **Returns:**
> > True when there is more than zero error otherwise False

getErrors

`public Map` **`getErrors`**`()`

> Returns the errors.

> **Returns:**
> > the error

fr.cnes.doi.client
Class ClientMDS

```
java.lang.Object
    |
    +-fr.cnes.doi.client.BaseClient
        |
        +-fr.cnes.doi.client.ClientMDS
```

public class **ClientMDS**
extends BaseClient

Client to query Metadata store service at Datacite.
See Also:
> "https://mds.datacite.org/static/apidoc"

Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Nested Class Summary

class	**ClientMDS.Context** ClientMDS.Context
class	**ClientMDS.DATACITE_API_RESPONSE** ClientMDS.DATACITE_API_RESPONSE

Field Summary

public static final	**DATA_CITE_MOCK_URL** Metadata store mock service endpoint #DATA_CITE_MOCK_URL. Value: **http://localhost:1080**
public static final	**DATA_CITE_TEST_URL** Metadata store test service endpoint #DATA_CITE_TEST_URL. Value: **https://mds.test.datacite.org**
public static final	**DATA_CITE_URL** Metadata store service endpoint #DATA_CITE_URL. Value: **https://mds.datacite.org**
public static final	**DOI_RESOURCE** DOI resource #DOI_RESOURCE. Value: **doi**
public static final	**MEDIA_RESOURCE** Media resource #MEDIA_RESOURCE. Value: **media**
public static final	**METADATA_RESOURCE** Metadata resource #METADATA_RESOURCE. Value: **metadata**
public static final	**POST_DOI** DOI query parameter #POST_DOI. Value: **doi**

public static final	POST_URL URL query parameter #POST_URL. Value: **url**
public static final	SCHEMA_DATACITE Default XML schema for Datacite: #SCHEMA_DATACITE Value: **https://schema.datacite.org/meta/kernel-4-1/metadata.xsd**
public static final	TEST_DOI_PREFIX Test DOI prefix #TEST_DOI_PREFIX. Value: **10.5072**
public static final	TEST_MODE Test mode sets to true.

Fields inherited from class `fr.cnes.doi.client.BaseClient`

 DATACITE_MOCKSERVER_PORT

Constructor Summary

public	ClientMDS(ClientMDS.Context context) Creates a client to handle DataCite server.
public	ClientMDS(ClientMDS.Context context, String login, String pwd) Creates a client to handle DataCite with a HTTP Basic authentication.
public	ClientMDS(String login, String pwd) Creates a client to handle DataCite with a HTTP Basic authentication.

Method Summary

static void	checkIfAllCharsAreValid(String test) DataCite recommends that only the following characters are used within a DOI name:
String	createDoi(org.restlet.data.Form form) Will mint new DOI if specified DOI doesn't exist.
String	createMedia(String doiName, org.restlet.data.Form form) Will add/update media type/urls pairs to a DOI.
String	createMetadata(org.restlet.representation.Representation entity) This request stores new version of metadata.
String	createMetadata(Resource entity) Creates metadata with 201 status when operation successful.
org.restlet.represent ation.Representation	deleteMetadata(String doiName) This request marks a dataset as 'inactive'.
Resource	deleteMetadataDoiAsObject(String doiName) This request marks a dataset as 'inactive'.
String	getDoi(String doiName) This request returns an URL associated with a given DOI.

String	getMedia(String doiName) This request returns list of pairs of media type and URLs associated with a given DOI.	
org.restlet.represent ation.Representation	getMetadata(String doiName) Returns the metadata based on its DOI name.	
Resource	getMetadataAsObject(String doiName) This request returns the most recent version of metadata associated with a given DOI.	
Resource	parseMetadata(org.restlet.representation.Representation entity) Parses the metadata and returns the Resource object from DataCite.	

Methods inherited from class fr.cnes.doi.client.BaseClient

getClient, getLog

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

DATA_CITE_URL

public static final java.lang.String **DATA_CITE_URL**

Metadata store service endpoint #DATA_CITE_URL.
Constant value: **https://mds.datacite.org**

DATA_CITE_MOCK_URL

public static final java.lang.String **DATA_CITE_MOCK_URL**

Metadata store mock service endpoint #DATA_CITE_MOCK_URL.
Constant value: **http://localhost:1080**

DATA_CITE_TEST_URL

public static final java.lang.String **DATA_CITE_TEST_URL**

Metadata store test service endpoint #DATA_CITE_TEST_URL.
Constant value: **https://mds.test.datacite.org**

DOI_RESOURCE

public static final java.lang.String **DOI_RESOURCE**

DOI resource #DOI_RESOURCE.
Constant value: **doi**

METADATA_RESOURCE

public static final java.lang.String **METADATA_RESOURCE**

Metadata resource #METADATA_RESOURCE.
Constant value: **metadata**

MEDIA_RESOURCE

public static final java.lang.String **MEDIA_RESOURCE**

Media resource #MEDIA_RESOURCE.
Constant value: **media**

TEST_MODE

public static final org.restlet.data.Parameter **TEST_MODE**

Test mode sets to true.

TEST_DOI_PREFIX

public static final java.lang.String **TEST_DOI_PREFIX**

Test DOI prefix #TEST_DOI_PREFIX.
Constant value: **10.5072**

POST_DOI

public static final java.lang.String **POST_DOI**

DOI query parameter #POST_DOI.
Constant value: **doi**

POST_URL

public static final java.lang.String **POST_URL**

URL query parameter #POST_URL.
Constant value: **url**

SCHEMA_DATACITE

public static final java.lang.String **SCHEMA_DATACITE**

Default XML schema for Datacite: #SCHEMA_DATACITE
Constant value: **https://schema.datacite.org/meta/kernel-4-1/metadata.xsd**

Constructors

ClientMDS

public **ClientMDS**(ClientMDS.Context context)

Creates a client to handle DataCite server. There is special test prefix 10.5072 available to all datacentres. Please use it for all your testing DOIs. Your real prefix should not be used for test DOIs. Note that DOIs with test prefix will behave like any other DOI, e.g. they can be normally resolved. They will not be exposed by upcoming services like search and OAI, though. Periodically we purge * all 10.5072 datasets from the system.

It is important to understand that the Handle System (the technical infrastructure for DOIs) is a distributed network system. The consequence of this manifests is its inherent latency. For example, DOIs have TTL (time to live) defaulted to 24 hours, so your changes will be visible to the resolution infrastructure only when the TTL expires. Also, if you create a DOI and then immediately try to update its URL, you might get the error message HANDLE NOT EXISTS. This is because it takes some time for the system to register a handle for a DOI. Each API call can have optional query parametertestMode. If set to "true" or "1" the request will not change the database nor will the DOI handle will be registered or updated, e.g. POST /doi?testMode=true and the testing prefix will be used instead of the provided prefix

Parameters:
>   context - Context using

Throws:
>   `fr.cnes.doi.exception.ClientMdsException` - Cannot the Datacite schema

ClientMDS

```
public ClientMDS(ClientMDS.Context context,
                 String login,
                 String pwd)
```

Creates a client to handle DataCite with a HTTP Basic authentication. All the traffic goes via HTTPS - please remember we do not support bare HTTP. All the requests to this system require HTTP Basic authentication header. You will get your username and password from your local DataCite allocator. Each account have some constraints associated with it:

- you will be allowed to mint DOIs only with prefix assigned to you
- you will be allowed to mint DOIs only with URLs in host domains assigned to you
- you might not be able to mint unlimited number of DOIs, there is a quota assigned to you by your allocator (the quota can be extended or lifted though)

Each API call can have optional query parametertestMode. If set to "true" or "1" the request will not change the database nor will the DOI handle will be registered or updated, e.g. POST /doi?testMode=true.

Parameters:
>   context - Context using
>   login - Login
>   pwd - password

Throws:
>   `fr.cnes.doi.exception.ClientMdsException` - Cannot the Datacite schema

ClientMDS

```
public ClientMDS(String login,
                 String pwd)
```

Creates a client to handle DataCite with a HTTP Basic authentication.

Parameters:
>   login - Login
>   pwd - password

Throws:
>   `fr.cnes.doi.exception.ClientMdsException` - Cannot the Datacite schema

Methods

checkIfAllCharsAreValid

```
public static void checkIfAllCharsAreValid(String test)
```

DataCite recommends that only the following characters are used within a DOI name:

- 0-9
- a-z
- A-Z
- - (dash)
- . (dot)
- _ (underscore)
- + (plus)
- : (colon)
- / (slash)

Parameters:
> `test` - DOI name to test

Throws:
> `IllegalArgumentException` - An exception is thrown when at least one character is not part of 0-9a-zA-Z\\-._+:/ of a DOI name

getDoi

```
public String getDoi(String doiName)
   throws ClientMdsException
```

This request returns an URL associated with a given DOI. A 200 status is an operation successful. A 204 status means no content (DOI is known to MDS, but is not minted (or not resolvable e.g. due to handle's latency) The DOI prefix may replace according to the `context`.

Parameters:
> `doiName` - DOI name

Returns:
> an URL or no content (DOI is known to MDS, but is not minted (or not resolvable e.g. due to handle's latency))

Throws:
> `ClientMdsException` - - if an error happens

- 401 Unauthorized - no login
- 403 - login problem or dataset belongs to another party
- 404 Not Found - DOI does not exist in our database
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:
> "https://mds.datacite.org/static/apidoc#tocAnchor-13"

createDoi

```
public String createDoi(org.restlet.data.Form form)
   throws ClientMdsException
```

Will mint new DOI if specified DOI doesn't exist. This method will attempt to update URL if you specify existing DOI. Standard domains and quota restrictions check will be performed. A Datacentre's doiQuotaUsed will be increased by 1. A new record in Datasets will be created when 201 Created status is returned. The DOI prefix may replace according to the `context`.

Parameters:
> `form` - A form with the following attributes doi and url

Returns:

short explanation of status code e.g. CREATED, HANDLE_ALREADY_EXISTS etc

Throws:

`ClientMdsException` - - if an error happens

- 400 Bad Request - request body must be exactly two lines: DOI and URL; wrong domain, wrong prefix
- 401 Unauthorized - no login
- 403 Forbidden - login problem, quota exceeded
- 412 Precondition failed - metadata must be uploaded first
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:

"https://mds.datacite.org/static/apidoc#tocAnchor-15"

getMetadataAsObject

```
public Resource getMetadataAsObject(String doiName)
   throws ClientMdsException
```

This request returns the most recent version of metadata associated with a given DOI. A status of 200 is an operation successful. The DOI prefix may replace according to the `context`.

Parameters:

`doiName` - DOI name

Returns:

XML representing a dataset

Throws:

`ClientMdsException` - - if an error happens

- 401 Unauthorized - no login
- 403 Forbidden - login problem or dataset belongs to another party
- 404 Not Found - DOI does not exist in our database
- 410 Gone - the requested dataset was marked inactive (using DELETE method)
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

getMetadata

```
public org.restlet.representation.Representation getMetadata(String doiName)
   throws ClientMdsException
```

Returns the metadata based on its DOI name. A status of 200 is an operation successful. The DOI prefix may replace according to the `context`.

Parameters:

`doiName` - DOI name

Returns:

the metadata as XML

Throws:

`ClientMdsException` - - if an error happens

- 200 OK - operation successful
- 401 Unauthorized - no login
- 403 Forbidden - login problem or dataset belongs to another party
- 404 Not Found - DOI does not exist in our database
- 410 Gone - the requested dataset was marked inactive (using DELETE method)
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:
"https://mds.datacite.org/static/apidoc#tocAnchor-15"

createMetadata

```
public String createMetadata(org.restlet.representation.Representation entity)
  throws ClientMdsException
```

This request stores new version of metadata. Creates metadata with 201 status when operation successful. The DOI prefix may replace according to the `context`.

Parameters:
`entity` - A valid XML

Returns:
short explanation of status code e.g. CREATED,HANDLE_ALREADY_EXISTS etc

Throws:
`ClientMdsException` - - if an error happens

- 400 Bad Request - invalid XML, wrong prefix
- 401 Unauthorized - no login
- 403 Forbidden - login problem, quota exceeded
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:
"https://mds.datacite.org/static/apidoc#tocAnchor-18"

createMetadata

```
public String createMetadata(Resource entity)
  throws ClientMdsException
```

Creates metadata with 201 status when operation successful. The DOI prefix may replace according to the `context`. The method is synchronized because marshall method is not thread-safe.

Parameters:
`entity` - Metadata

Returns:
short explanation of status code e.g. CREATED, HANDLE_ALREADY_EXISTS etc

Throws:

`ClientMdsException` - - if an error happens

- 400 Bad Request - invalid XML, wrong prefix
- 401 Unauthorized - no login
- 403 Forbidden - login problem, quota exceeded
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:
"https://mds.datacite.org/static/apidoc#tocAnchor-18"

parseMetadata

```
public Resource parseMetadata(org.restlet.representation.Representation entity)
  throws javax.xml.bind.ValidationException
```

Parses the metadata and returns the Resource object from DataCite. The method is synchronized because unmarshall method is not thread-safe.

Parameters:
`entity` - metadata

Returns:
the Resource object from DataCite

Throws:
`ValidationException` - When validation failed

deleteMetadataDoiAsObject

```
public Resource deleteMetadataDoiAsObject(String doiName)
  throws ClientMdsException
```

This request marks a dataset as 'inactive'. To activate it again, POST new metadata or set the isActive-flag in the user interface. A status of 200 is an operation successful. The DOI prefix may replace according to the `context`.

Parameters:
`doiName` - DOI name

Returns:
XML representing a dataset

Throws:
`ClientMdsException` - - if an error happens

- 401 Unauthorized - no login
- 403 Forbidden - login problem or dataset belongs to another party
- 404 Not Found - DOI does not exist in our database
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:
"https://mds.datacite.org/static/apidoc#tocAnchor-19"

deleteMetadata

```
public org.restlet.representation.Representation deleteMetadata(String doiName)
  throws ClientMdsException
```

This request marks a dataset as 'inactive'. To activate it again, POST new metadata or set the isActive-flag in the user interface. A status of 200 is an operation successful The DOI prefix may replace according to the `context`.

Parameters:
> `doiName` - DOI name

Returns:
> the deleted metadata

Throws:
> `ClientMdsException` - - if an error happens

> - 401 Unauthorized - no login
> - 403 Forbidden - login problem or dataset belongs to another party
> - 404 Not Found - DOI does not exist in our database
> - 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:
> "https://mds.datacite.org/static/apidoc#tocAnchor-19"

getMedia

```
public String getMedia(String doiName)
    throws ClientMdsException
```

This request returns list of pairs of media type and URLs associated with a given DOI. A status of 200 is an operation successful. The DOI prefix may replace according to the `context`.

Parameters:
> `doiName` - DOI name

Returns:
> list of pairs of media type and URLs

Throws:
> `ClientMdsException` - - if an error happens

> - 401 Unauthorized - no login
> - 403 login problem or dataset belongs to another party
> - 404 Not Found - No media attached to the DOI or DOI does not exist in our database
> - 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:
> "https://mds.datacite.org/static/apidoc#tocAnchor-21"

createMedia

```
public String createMedia(String doiName,
        org.restlet.data.Form form)
    throws ClientMdsException
```

Will add/update media type/urls pairs to a DOI. A status of 200 is an operation successful.Standard domain restrictions check will be performed. The DOI prefix may replace according to the `context`.

Parameters:
> `doiName` - DOI identifier

form - Multiple lines in the following format{mime-type}={url} where {mime-type} and {url} have to be replaced by your mime type and URL, UFT-8 encoded.

Returns:

short explanation of status code

Throws:

ClientMdsException - - if an error happens

- 400 Bad Request - one or more of the specified mime-types or urls are invalid (e.g. non supported mime-type, not allowed url domain, etc.)
- 401 Unauthorized - no login
- 403 Forbidden - login problem
- 500 Internal Server Error - server internal error, try later and if problem persists please contact us

See Also:

"https://mds.datacite.org/static/apidoc#tocAnchor-22"

fr.cnes.doi.client
Class ClientMDS.DATACITE_API_RESPONSE

```
java.lang.Object
    │
    +–java.lang.Enum
          │
          +–fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE
```

All Implemented Interfaces:
        Serializable, Comparable

---

public static final class **ClientMDS.DATACITE_API_RESPONSE**
extends Enum

Datacite API.

Field Summary

public static final	BAD_REQUEST Fail to create a media or the metadata.
public static final	DOI_INACTIVE Get an inactive DOI.
public static final	DOI_NOT_FOUND Fail to get the DOI.
public static final	FORBIDDEN Fail to create/delete media/metadata/Landing page.
public static final	INTERNAL_SERVER_ERROR Internal server Error.
public static final	PROCESS_ERROR Fail to create a DOI because metadata must be uploaded first.
public static final	SUCCESS Get/Delete successfully a DOI or a media.
public static final	SUCCESS_NO_CONTENT Get a DOI without metadata.
public static final	SUCESS_CREATED Create successfully a DOI.
public static final	UNAUTHORIZED Fail to authorize the user to create/delete a DOI.

Method Summary

static String	getMessageFromStatus(org.restlet.data.Status statusToFind) Returns the message for a specific Status.
String	getShortMessage() Returns the short message

org.restlet.data.Status	[getStatus]()() Returns the status
static ClientMDS.DATACITE_API_RESPONSE	[valueOf]()(String name)
static ClientMDS.DATACITE_API_RESPONSE[]	[values]()()

Methods inherited from class `java.lang.Enum`

`clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `java.lang.Comparable`

`compareTo`

Fields

SUCCESS

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`SUCCESS`**

Get/Delete successfully a DOI or a media. SUCCESS_OK is used as status

SUCESS_CREATED

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`SUCESS_CREATED`**

Create successfully a DOI. SUCCESS_CREATED is as used as status.

SUCCESS_NO_CONTENT

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`SUCCESS_NO_CONTENT`**

Get a DOI without metadata. SUCCESS_NO_CONTENT is used as status

BAD_REQUEST

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`BAD_REQUEST`**

Fail to create a media or the metadata. CLIENT_ERROR_BAD_REQUEST is used as status

UNAUTHORIZED

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`UNAUTHORIZED`**

Fail to authorize the user to create/delete a DOI. CLIENT_ERROR_UNAUTHORIZED is used as status

FORBIDDEN

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`FORBIDDEN`**

Fail to create/delete media/metadata/Landing page. CLIENT_ERROR_FORBIDDEN is used as status

DOI_NOT_FOUND

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`DOI_NOT_FOUND`**

Fail to get the DOI. CLIENT_ERROR_NOT_FOUND is used as status

DOI_INACTIVE

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`DOI_INACTIVE`**

Get an inactive DOI. CLIENT_ERROR_GONE is used as status

PROCESS_ERROR

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`PROCESS_ERROR`**

Fail to create a DOI because metadata must be uploaded first. CLIENT_ERROR_PRECONDITION_FAILED is used as status

INTERNAL_SERVER_ERROR

`public static final fr.cnes.doi.client.ClientMDS.DATACITE_API_RESPONSE` **`INTERNAL_SERVER_ERROR`**

Internal server Error. INTERNAL_SERVER_ERROR is used as status.

Methods

values

`public static` [`ClientMDS.DATACITE_API_RESPONSE[]`](#) **`values`**`()`

valueOf

`public static` [`ClientMDS.DATACITE_API_RESPONSE`](#) **`valueOf`**`(String name)`

getStatus

`public org.restlet.data.Status` **`getStatus`**`()`

Returns the status

Returns:
the status

getShortMessage

`public String `**`getShortMessage`**`()`

Returns the short message

Returns:
the short message

getMessageFromStatus

`public static String `**`getMessageFromStatus`**`(org.restlet.data.Status statusToFind)`

Returns the message for a specific Status.

Parameters:
`statusToFind` - status to search

Returns:
the message or empty string

getShortMessage

`public String `**`getShortMessage`**`()`

fr.cnes.doi.client
Class ClientMDS.Context

```
java.lang.Object
    |
    +-java.lang.Enum
          |
          +-fr.cnes.doi.client.ClientMDS.Context
```

All Implemented Interfaces:
 Serializable, Comparable

---

public static final class **ClientMDS.Context**
extends Enum

Options for each context

Field Summary

public static final	**DEV** Development context.
public static final	**POST_DEV** Post development context.
public static final	**PRE_PROD** Pre production context.
public static final	**PROD** Production context.

Method Summary

String	**getDataCiteUrl**() Returns the service end point.
Level	**getLevelLog**() Returns the log level.
boolean	**hasDoiTestPrefix**() Returns true when the context has a DOI dev.
boolean	**hasTestMode**() Returns true when the context must not register data in DataCite
static void	**setDataCiteUrl**(ClientMDS.Context context, String dataCiteUrl) Sets the DataCite URL for a given context
static void	**setLevelLog**(ClientMDS.Context context, Level levelLog) Sets the level log for a given context
static ClientMDS.Context	**valueOf**(String name)
static ClientMDS.Context[]	**values**()

Methods inherited from class `java.lang.Enum`

```
clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal,
toString, valueOf
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.lang.Comparable`

```
compareTo
```

Fields

DEV

`public static final fr.cnes.doi.client.ClientMDS.Context` **DEV**

> Development context.

POST_DEV

`public static final fr.cnes.doi.client.ClientMDS.Context` **POST_DEV**

> Post development context.

PRE_PROD

`public static final fr.cnes.doi.client.ClientMDS.Context` **PRE_PROD**

> Pre production context.

PROD

`public static final fr.cnes.doi.client.ClientMDS.Context` **PROD**

> Production context.

Methods

values

`public static` [ClientMDS.Context[]](#) **values**()

valueOf

`public static` [ClientMDS.Context](#) **valueOf**(String name)

hasDoiTestPrefix

public boolean **hasDoiTestPrefix**()

Returns true when the context has a DOI dev.

Returns:
True when the context has a DOI dev

hasTestMode

public boolean **hasTestMode**()

Returns true when the context must not register data in DataCite

Returns:
true when the context must not register data in DataCite

getLevelLog

public Level **getLevelLog**()

Returns the log level.

Returns:
the log level

getDataCiteUrl

public String **getDataCiteUrl**()

Returns the service end point.

Returns:
the service end point

setLevelLog

public static void **setLevelLog**(ClientMDS.Context context,
        Level levelLog)

Sets the level log for a given context

Parameters:
context - the context
levelLog - the level log

setDataCiteUrl

public static void **setDataCiteUrl**(ClientMDS.Context context,
        String dataCiteUrl)

Sets the DataCite URL for a given context

Parameters:
context - the context
dataCiteUrl - the DataCite URL

fr.cnes.doi.client
Class ClientSearchDataCite

```
java.lang.Object
    └─fr.cnes.doi.client.BaseClient
        +-fr.cnes.doi.client.ClientSearchDataCite
```

public class **ClientSearchDataCite**
extends BaseClient

Class to search DOI from metadata
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.client.BaseClient`

DATACITE_MOCKSERVER_PORT

Constructor Summary

public	ClientSearchDataCite() Constructor.
public	ClientSearchDataCite(String doiPrefix) Constructor.

Method Summary

void	computeListDOI(int start, String doiPrefix) Computes recursively the response.
List	getDois() Returns the search result.
List	getDois(String idProject) Returns only the dois within the specified project from the search result.

Methods inherited from class `fr.cnes.doi.client.BaseClient`

getClient, getLog

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Constructors

ClientSearchDataCite

public **ClientSearchDataCite**()

Constructor.

Throws:

fr.cnes.doi.exception.ClienSearchDataCiteException - when an error happens

ClientSearchDataCite

public **ClientSearchDataCite**(String doiPrefix)

Constructor.

Parameters:
doiPrefix - DOI prefix

Throws:

ClienSearchDataCiteException - when an error happens

Methods

computeListDOI

```
public final void computeListDOI(int start,
        String doiPrefix)
  throws DoiRuntimeException,
        IOException
```

Computes recursively the response.

Parameters:
start - page number
doiPrefix - DOI prefix

Throws:

DoiRuntimeException - - if the status of the query is not 200
java.io.IOException - - if an error happens in the stream

getDois

public List **getDois**()

Returns the search result.

Returns:
the search result

getDois

public List **getDois**(String idProject)

Returns only the dois within the specified project from the search result.

Parameters:
idProject - project ID

Returns:
the search result

Package

fr.cnes.doi.db

Provides interfaces to request external databases.

Three databases are needed :

- One to access to the project database
- Another one to access to the token database
- The last one to access to the user/role database

Project database

The project database stores the project name and its identifier. The identifier is used in the DOI name to assure the unique name through the organization. The DOI is built like this:
 doi://*prefix organization assigned by DataCite*/*suffix project assign by DOI server to a project*/*free identifier by the project*

Token database

The token database stores the created token in order to verify them when there are used by the user.

User/role database

The user/role database stores the users and the association role/user

fr.cnes.doi.db
Class AbstractProjectSuffixDBHelper

```
java.lang.Object
    |
    +-java.util.Observable
        |
        +-fr.cnes.doi.db.AbstractProjectSuffixDBHelper
```

Direct Known Subclasses:
> AbstractProjectSuffixPluginHelper

---

public abstract class **AbstractProjectSuffixDBHelper**
extends Observable

Interface for handling the project suffix database.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	ADD_RECORD Notification message when the record is added #ADD_RECORD. Value: **ADD**
public static final	DELETE_RECORD Notification message when the record is added #DELETE_RECORD. Value: **DELETE**
public static final	RENAME_RECORD Notification message when the record is added #RENAME_RECORD. Value: **RENAME**

Constructor Summary

public	AbstractProjectSuffixDBHelper()

Method Summary

abstract boolean	addProjectSuffix(int projectID, String projectName) Adds a suffix project in the database.
abstract boolean	deleteProject(int projectID) Deletes a suffix project from the database.
abstract List	getAllDOIUsersForProject(int doiSuffix) Returns the users related to a project.
abstract int	getIDFrom(String projectName) Returns the project suffix based on the project name.
abstract String	getProjectFrom(int projectID) Returns the project name based on the suffix project.

abstract List	getProjects() Returns the database records.
abstract List	getProjectsFromUser(String userName) Returns the projects related to a specific user.
abstract boolean	isExistID(int projectID) Tests is a suffix project exists in the database.
abstract boolean	isExistProjectName(String projectName) Tests is the project name exists in the database.
abstract boolean	renameProject(int projectID, String newProjectName) Rename a project in the database.

Methods inherited from class `java.util.Observable`

addObserver, clearChanged, countObservers, deleteObserver, deleteObservers,
hasChanged, notifyObservers, notifyObservers, setChanged

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Fields

ADD_RECORD

public static final java.lang.String **ADD_RECORD**

Notification message when the record is added #ADD_RECORD.
Constant value: **ADD**

DELETE_RECORD

public static final java.lang.String **DELETE_RECORD**

Notification message when the record is added #DELETE_RECORD.
Constant value: **DELETE**

RENAME_RECORD

public static final java.lang.String **RENAME_RECORD**

Notification message when the record is added #RENAME_RECORD.
Constant value: **RENAME**

Constructors

AbstractProjectSuffixDBHelper

public **AbstractProjectSuffixDBHelper**()

Methods

addProjectSuffix

```
public abstract boolean addProjectSuffix(int projectID,
         String projectName)
```

Adds a suffix project in the database.

Parameters:
projectID - suffix project
projectName - project name

Returns:
True when the suffix project is added otherwise False

renameProject

```
public abstract boolean renameProject(int projectID,
         String newProjectName)
```

Rename a project in the database.

Parameters:
projectID - suffix project to be renamed
newProjectName - the new project name

Returns:
True when the project has been renamed otherwise False

deleteProject

```
public abstract boolean deleteProject(int projectID)
```

Deletes a suffix project from the database.

Parameters:
projectID - the suffix project

Returns:
True when the suffix project has been deleted otherwise False

isExistID

```
public abstract boolean isExistID(int projectID)
```

Tests is a suffix project exists in the database.

Parameters:
projectID - suffix project

Returns:
True when the suffix project exists otherwise False

isExistProjectName

```
public abstract boolean isExistProjectName(String projectName)
```

Tests is the project name exists in the database.

> **Parameters:**
>> projectName - the project name

> **Returns:**
>> True when the project name exists otherwise False.

---

getProjectFrom

```
public abstract String getProjectFrom(int projectID)
  throws DOIDbException
```

Returns the project name based on the suffix project.

> **Parameters:**
>> projectID - the suffix project

> **Returns:**
>> the project name

> **Throws:**
>> fr.cnes.doi.exception.DOIDbException - when an error occurs

---

getIDFrom

```
public abstract int getIDFrom(String projectName)
  throws DOIDbException
```

Returns the project suffix based on the project name.

> **Parameters:**
>> projectName - the project name

> **Returns:**
>> the suffix project

> **Throws:**
>> fr.cnes.doi.exception.DOIDbException - When an error occurs

---

getProjects

```
public abstract List getProjects()
  throws DOIDbException
```

Returns the database records.

> **Returns:**
>> the database records

> **Throws:**
>> fr.cnes.doi.exception.DOIDbException - When an error occurs

---

getProjectsFromUser

```
public abstract List getProjectsFromUser(String userName)
  throws DOIDbException
```

Returns the projects related to a specific user.

Parameters:
    `userName` - username

Returns:
    the projected to an user

Throws:
    `fr.cnes.doi.exception.DOIDbException` - When an error occurs

getAllDOIUsersForProject

```
public abstract List getAllDOIUsersForProject(int doiSuffix)
  throws DOIDbException
```

 Returns the users related to a project.

Parameters:
    `doiSuffix` - project

Returns:
    the users

Throws:
    `fr.cnes.doi.exception.DOIDbException` - When an error occurs.

fr.cnes.doi.db
Class AbstractTokenDBHelper

```
java.lang.Object
    │
    +─java.util.Observable
        │
        +─fr.cnes.doi.db.AbstractTokenDBHelper
```

Direct Known Subclasses:
    AbstractTokenDBPluginHelper

---

public abstract class **AbstractTokenDBHelper**
extends Observable

Interface for handling the token database.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	AbstractTokenDBHelper()

Method Summary

abstract boolean	addToken(String jwt) Adds a token in the database
abstract boolean	deleteToken(String jwt) Deletes a token from the database.
abstract List	getTokens() Return the token list from database.
abstract boolean	isExist(String jwt) Tests if the token exists in the database.

Methods inherited from class `java.util.Observable`

addObserver, clearChanged, countObservers, deleteObserver, deleteObservers,
hasChanged, notifyObservers, notifyObservers, setChanged

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

AbstractTokenDBHelper

public **AbstractTokenDBHelper**()

Methods

addToken

```
public abstract boolean addToken(String jwt)
```

Adds a token in the database

Parameters:
   jwt - a token

Returns:
   True when the token is added to the database otherwise False

deleteToken

```
public abstract boolean deleteToken(String jwt)
```

Deletes a token from the database.

Parameters:
   jwt - the token

Returns:
   True when the token is deletes otherwise false

isExist

```
public abstract boolean isExist(String jwt)
```

Tests if the token exists in the database.

Parameters:
   jwt - the token

Returns:
   True when the token exists in the database otherwise False

getTokens

```
public abstract List getTokens()
  throws DOIDbException
```

Return the token list from database.

Returns:
   the list of tokens

Throws:
   fr.cnes.doi.exception.DOIDbException - when an error occurs

fr.cnes.doi.db
Class AbstractUserRoleDBHelper

```
java.lang.Object
    |
    +-java.util.Observable
         |
         +-fr.cnes.doi.db.AbstractUserRoleDBHelper
```

Direct Known Subclasses:
>   AbstractUserRolePluginHelper

---

public abstract class **AbstractUserRoleDBHelper**
extends Observable

Interface for handling users and role database. This database is used to authenticate the requests.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	ADD_USER_NOTIFICATION
	    Notification message when an user is added #ADD_USER_NOTIFICATION.
	    Value: **AddUserNotification**

public static final	REMOVE_USER_NOTIFICATION
	    Notification message when an user is deleted #REMOVE_USER_NOTIFICATION.
	    Value: **RemoveUserNotification**

Constructor Summary

public	**AbstractUserRoleDBHelper**()

Method Summary

abstract boolean	addDOIUser(String username, Boolean admin) Add a DOI user
abstract boolean	addDOIUser(String username, Boolean admin, String email) Add a DOI user
abstract boolean	addUserToRole(String user, int role) Adds an user to a specific role.
MyMemoryRealm	getRealm() Returns the realm.
abstract List	getUsers() Returns the allowed users for authentication.
abstract List	getUsersFromRole(int roleName) Get users from a specific role.

abstract boolean	isUserExist(String username) Tests if the user exists.	
abstract boolean	removeDOIUser(String username) Removes the user	
abstract boolean	removeUserToRole(String user, int role) Removes an user from a specific role.	
abstract boolean	setUserToAdminGroup(String admin) Add user to Administrators group	
abstract boolean	unsetUserFromAdminGroup(String admin) Remove user to Administrators group	

Methods inherited from class `java.util.Observable`

addObserver, clearChanged, countObservers, deleteObserver, deleteObservers, hasChanged, notifyObservers, notifyObservers, setChanged

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

ADD_USER_NOTIFICATION

public static final java.lang.String **ADD_USER_NOTIFICATION**

> Notification message when an user is added #ADD_USER_NOTIFICATION.
> Constant value: **AddUserNotification**

REMOVE_USER_NOTIFICATION

public static final java.lang.String **REMOVE_USER_NOTIFICATION**

> Notification message when an user is deleted #REMOVE_USER_NOTIFICATION.
> Constant value: **RemoveUserNotification**

Constructors

AbstractUserRoleDBHelper

public **AbstractUserRoleDBHelper**()

Methods

getRealm

public MyMemoryRealm **getRealm**()

> Returns the realm.

(continued from last page)

Returns:
    the realm

getUsers

```
public abstract List getUsers()
  throws DOIDbException
```

Returns the allowed users for authentication.

Returns:
    List of users to add for the authentication

Throws:
    `fr.cnes.doi.exception.DOIDbException` - When an error occurs

getUsersFromRole

```
public abstract List getUsersFromRole(int roleName)
  throws DOIDbException
```

Get users from a specific role.

Parameters:
    `roleName` - role name

Returns:
    The users related to a specific role

Throws:
    `fr.cnes.doi.exception.DOIDbException` - When an error occurs

addUserToRole

```
public abstract boolean addUserToRole(String user,
          int role)
```

Adds an user to a specific role.

Parameters:
    `user` - user to add
    `role` - role

Returns:
    True when the user is added otherwise False

removeUserToRole

```
public abstract boolean removeUserToRole(String user,
          int role)
```

Removes an user from a specific role.

Parameters:
    `user` - user to remove
    `role` - role

Returns:

True when the user is removed otherwise False

---

setUserToAdminGroup

```
public abstract boolean setUserToAdminGroup(String admin)
```

Add user to Administrators group

Parameters:
admin - user to add

Returns:
True when the user is added in the admin group otherwise False

---

unsetUserFromAdminGroup

```
public abstract boolean unsetUserFromAdminGroup(String admin)
```

Remove user to Administrators group

Parameters:
admin - user to add

Returns:
True when the user is removed from the admin group otherwise False

---

addDOIUser

```
public abstract boolean addDOIUser(String username,
        Boolean admin)
```

Add a DOI user

Parameters:
username - username
admin - True when the user must be added in the admin group otherwise False

Returns:
True when the user is added otherwise False

---

addDOIUser

```
public abstract boolean addDOIUser(String username,
        Boolean admin,
        String email)
```

Add a DOI user

Parameters:
username - username
admin - True when the user must be added in the admin group otherwise False
email - email

Returns:
True when the the user is added otherwise false

---

isUserExist

public abstract boolean **isUserExist**(String username)

Tests if the user exists.

Parameters:
username - the user

Returns:
True when the user exists otherwise False

removeDOIUser

public abstract boolean **removeDOIUser**(String username)

Removes the user

Parameters:
username - user

Returns:
True when the user is removed otherwise false

public abstract boolean **isUserExist**(String username)

fr.cnes.doi.db
Interface IAuthenticationDBHelper

All Known Implementing Classes:
> AbstractAuthenticationPluginHelper

---

public interface **IAuthenticationDBHelper**
extends

This interfaces handles authentications operations.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Method Summary

abstract boolean	authenticateUser(String login, String password) Authenticates an user via the authentication service.
abstract String	getDOIAdmin() Returns the user from the authentication access, which will be the administrator of DOI server.
abstract List	getDOIProjectMembers() Returns the authentication members.

Methods

getDOIProjectMembers

public abstract List **getDOIProjectMembers**()
  throws AuthenticationAccessException

> Returns the authentication members.

> **Returns:**
> > the authentication members

> **Throws:**
> > AuthenticationAccessException - When a problem occurs

---

authenticateUser

public abstract boolean **authenticateUser**(String login,
      String password)

> Authenticates an user via the authentication service.

> **Parameters:**
> > login - login
> > password - password

> **Returns:**
> > True when the user is authenticated otherwise False.

---

getDOIAdmin

```
public abstract String getDOIAdmin()
```

Returns the user from the authentication access, which will be the administrator of DOI server.

Returns:
the administrator

getDOIAdmin

```
public abstract String getDOIAdmin()
```

fr.cnes.doi.db
Class MyMemoryRealm

```
java.lang.Object
    │
    +-org.restlet.security.Realm
        │
        +-fr.cnes.doi.db.MyMemoryRealm
```

public final class **MyMemoryRealm**
extends org.restlet.security.Realm

Had to change method "unmap" l.520, which threw ArrayIndexOutOfBoundsException
Author:
　　disto

Constructor Summary

public	[MyMemoryRealm](#)() Constructor.

Method Summary

Set	[findGroups](#)(org.restlet.security.User user) Finds the set of groups where a given user is a member.
Set	[findGroups](#)(org.restlet.security.User user, boolean inheritOnly) Finds the set of groups where a given user is a member.
Set	[findRoles](#)(org.restlet.Application application, org.restlet.security.Group userGroup) Finds the roles mapped to a given user group.
Set	[findRoles](#)(org.restlet.Application application, Set userGroups) Finds the roles mapped to given user groups.
Set	[findRoles](#)(org.restlet.Application application, org.restlet.security.User user) Finds the roles mapped to a given user, for a specific application.
Set	[findRoles](#)(org.restlet.security.Group userGroup) Finds the roles mapped to given user group.
Set	[findRoles](#)(Set userGroups) Finds the roles mapped to given user groups.
Set	[findRoles](#)(org.restlet.security.User user) Finds the roles mapped to a given user.
org.restlet.security. User	[findUser](#)(String userIdentifier) Finds a user in the organization based on its identifier.
List	[getRootGroups](#)() Returns the modifiable list of root groups.

List	[getUsers](()) Returns the modifiable list of users.	
void	[map](org.restlet.security.Group group, org.restlet.security.Role role) Maps a group defined in a component to a role defined in the application.	
void	[map](org.restlet.security.User user, org.restlet.Application application, String roleName) Maps a user defined in a component to a role defined in the application.	
void	[map](org.restlet.security.User user, org.restlet.security.Role role) Maps a user defined in a component to a role defined in the application.	
void	[setRootGroups](List rootGroups) Sets the modifiable list of root groups.	
void	[setUsers](List users) Sets the modifiable list of users.	
void	[unmap](org.restlet.security.Group group, org.restlet.Application application, String roleName) Unmaps a group defined in a component from a role defined in the application.	
void	[unmap](org.restlet.security.Group group, org.restlet.security.Role role) Unmaps a group defined in a component from a role defined in the application.	
void	[unmap](org.restlet.security.User user, org.restlet.Application application, String roleName) Unmaps a user defined in a component from a role defined in the application.	
void	[unmap](org.restlet.security.User user, org.restlet.security.Role role) Unmaps a user defined in a component from a role defined in the application.	

Methods inherited from class `org.restlet.security.Realm`

`getEnroler, getName, getParameters, getVerifier, isStarted, isStopped, setEnroler, setName, setParameters, setVerifier, start, stop, toString`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Constructors

MyMemoryRealm

public **MyMemoryRealm**()

    Constructor.

Methods

findGroups

public Set **findGroups**(org.restlet.security.User user)

Finds the set of groups where a given user is a member. Note that inheritable ancestors groups are also returned.

Parameters:
    user - The member user.

Returns:
    The set of groups.

findGroups

```
public Set findGroups(org.restlet.security.User user,
        boolean inheritOnly)
```

Finds the set of groups where a given user is a member.

Parameters:
    user - The member user.
    inheritOnly - Indicates if only the ancestors groups that have their "inheritRoles" property enabled should be added.

Returns:
    The set of groups.

findRoles

```
public Set findRoles(org.restlet.Application application,
        org.restlet.security.Group userGroup)
```

Finds the roles mapped to a given user group.

Parameters:
    application - The parent application. Can't be null.
    userGroup - The user group.

Returns:
    The roles found.

Throws:
    IllegalArgumentException - If application is null.

findRoles

```
public Set findRoles(org.restlet.Application application,
        Set userGroups)
```

Finds the roles mapped to given user groups.

Parameters:
    application - The parent application. Can't be null.
    userGroups - The user groups.

Returns:
    The roles found.

Throws:
    IllegalArgumentException - If application is null.

findRoles

```
public Set findRoles(org.restlet.Application application,
          org.restlet.security.User user)
```

Finds the roles mapped to a given user, for a specific application.

> **Parameters:**
> application - The parent application. Can't be null.
> user - The user.

> **Returns:**
> The roles found.

> **Throws:**
> IllegalArgumentException - If application is null.

findRoles

```
public Set findRoles(org.restlet.security.Group userGroup)
```

Finds the roles mapped to given user group.

> **Parameters:**
> userGroup - The user group.

> **Returns:**
> The roles found.

findRoles

```
public Set findRoles(Set userGroups)
```

Finds the roles mapped to given user groups.

> **Parameters:**
> userGroups - The user groups.

> **Returns:**
> The roles found.

findRoles

```
public Set findRoles(org.restlet.security.User user)
```

Finds the roles mapped to a given user.

> **Parameters:**
> user - The user.

> **Returns:**
> The roles found.

findUser

```
public org.restlet.security.User findUser(String userIdentifier)
```

Finds a user in the organization based on its identifier.

Parameters:
>   `userIdentifier` - The identifier to match.

Returns:
>   The matched user or null.

getRootGroups

```
public List getRootGroups()
```

>   Returns the modifiable list of root groups.

Returns:
>   The modifiable list of root groups.

getUsers

```
public List getUsers()
```

>   Returns the modifiable list of users.

Returns:
>   The modifiable list of users.

map

```
public void map(org.restlet.security.Group group,
        org.restlet.security.Role role)
```

>   Maps a group defined in a component to a role defined in the application.

Parameters:
>   `group` - The source group.
>   `role` - The target role.

map

```
public void map(org.restlet.security.User user,
        org.restlet.Application application,
        String roleName)
```

>   Maps a user defined in a component to a role defined in the application.

Parameters:
>   `user` - The source user.
>   `application` - The parent application. Can't be null.
>   `roleName` - he target role name.

Throws:
>   `IllegalArgumentException` - If application is null.

map

```
public void map(org.restlet.security.User user,
        org.restlet.security.Role role)
```

>   Maps a user defined in a component to a role defined in the application.

Parameters:

> user - The source user.
> role - The target role.

setRootGroups

public void **setRootGroups**(List rootGroups)

> Sets the modifiable list of root groups. This method clears the current list and adds all entries in the parameter list.

> **Parameters:**
> > rootGroups - A list of root groups.

setUsers

public void **setUsers**(List users)

> Sets the modifiable list of users. This method clears the current list and adds all entries in the parameter list.

> **Parameters:**
> > users - A list of users.

unmap

public void **unmap**(org.restlet.security.Group group,
        org.restlet.Application application,
        String roleName)

> Unmaps a group defined in a component from a role defined in the application.

> **Parameters:**
> > group - The source group.
> > application - The parent application. Can't be null.
> > roleName - The target role name.

> **Throws:**
> > IllegalArgumentException - If application is null.

unmap

public void **unmap**(org.restlet.security.Group group,
        org.restlet.security.Role role)

> Unmaps a group defined in a component from a role defined in the application.

> **Parameters:**
> > group - The source group.
> > role - The target role.

unmap

public void **unmap**(org.restlet.security.User user,
        org.restlet.Application application,
        String roleName)

> Unmaps a user defined in a component from a role defined in the application.

> **Parameters:**
> > user - The source user.
> > application - The parent application. Can't be null.

roleName - The target role name.

Throws:

IllegalArgumentException - If application is null.

unmap

```
public void unmap(org.restlet.security.User user,
        org.restlet.security.Role role)
```

Unmaps a user defined in a component from a role defined in the application.

Parameters:

user - The source user.
role - The target role.

Package
fr.cnes.doi.db.model

Provides the data models for:

- `DOIProject` representing the project data model
- `DOIUser` representing the user data model

fr.cnes.doi.db.model
Class AuthSystemUser

```
java.lang.Object
    │
    +-fr.cnes.doi.db.model.AuthSystemUser
```

public class **AuthSystemUser**
extends Object

Authentication user model.

Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[AuthSystemUser](#)()

Method Summary

String	[getEmail](#)() Returns the email.
String	[getFullname](#)() Returns the full name.
String	[getUsername](#)() Returns the username.
void	[setEmail](#)(String email) Sets the email.
void	[setFullname](#)(String fullname) Sets the full name.
void	[setUsername](#)(String username) Sets the username
String	[toString](#)()

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

AuthSystemUser

public **AuthSystemUser**()

Methods

getUsername

```
public String getUsername()
```

Returns the username.

Returns:
the username

setUsername

```
public void setUsername(String username)
```

Sets the username

Parameters:
username - the username

getEmail

```
public String getEmail()
```

Returns the email.

Returns:
the email

setEmail

```
public void setEmail(String email)
```

Sets the email.

Parameters:
email - the email

getFullname

```
public String getFullname()
```

Returns the full name.

Returns:
the full name

setFullname

```
public void setFullname(String fullname)
```

Sets the full name.

Parameters:
fullname - the full name

toString

```
public String toString()
```

toString

```
public String toString()
```

fr.cnes.doi.db.model
Class DOIProject

```
java.lang.Object
    │
    +-fr.cnes.doi.db.model.DOIProject
```

public class **DOIProject**
extends Object

Data model for a DOI project.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[DOIProject](#)()

Method Summary

String	[getProjectname](#)() Returns the project name.
int	[getSuffix](#)() Returns the suffix.
Boolean	[isEqualTo](#)([DOIProject](#) doiProject) Tests a doiProject is equal to this one.
void	[setProjectname](#)(String projectname) Sets the project name.
void	[setSuffix](#)(int suffix) Sets the suffix.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

DOIProject

public **DOIProject**()

Methods

getSuffix

```
public int getSuffix()
```

Returns the suffix.

Returns:
the suffix

setSuffix

```
public void setSuffix(int suffix)
```

Sets the suffix.

Parameters:
`suffix` - DOI project suffix

getProjectname

```
public String getProjectname()
```

Returns the project name.

Returns:
the project name

setProjectname

```
public void setProjectname(String projectname)
```

Sets the project name.

Parameters:
`projectname` - the project name

isEqualTo

```
public Boolean isEqualTo(DOIProject doiProject)
```

Tests a doiProject is equal to this one.

Parameters:
`doiProject` - doi project

Returns:
True when there are equals otherwise False

fr.cnes.doi.db.model
Class DOIUser

```
java.lang.Object
    │
    +-fr.cnes.doi.db.model.DOIUser
```

public class **DOIUser**
extends Object

DOI user model
Author:
   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	DOIUser()

Method Summary

String	getEmail() Returns the email.
String	getUsername() Returns the user name.
Boolean	isAdmin() Returns True when the user is administrator otherwise False.
Boolean	isEqualTo(DOIUser testuser) Tests if this object is equal to testuser.
void	setAdmin(Boolean isAdmin) Sets an administrator as admin.
void	setEmail(String email) Sets the email of the user.
void	setUsername(String username) Sets the user name.
String	toString()

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

DOIUser

```
public DOIUser()
```

Methods

getUsername

```
public String getUsername()
```

Returns the user name.

Returns:
the user name

setUsername

```
public void setUsername(String username)
```

Sets the user name.

Parameters:
username - user name.

isAdmin

```
public Boolean isAdmin()
```

Returns True when the user is administrator otherwise False.

Returns:
True when the user is administrator otherwise False

setAdmin

```
public void setAdmin(Boolean isAdmin)
```

Sets an administrator as admin.

Parameters:
isAdmin - True when the user is administrator otherwise False

setEmail

```
public void setEmail(String email)
```

Sets the email of the user.

Parameters:
email - email

getEmail

```
public String getEmail()
```

Returns the email.

Returns:
the email

isEqualTo

public Boolean **isEqualTo**(DOIUser testuser)

Tests if this object is equal to testuser.

Parameters:
testuser - DOIUser to test

Returns:
True when testuser is the same Ã this DOIUser

toString

public String **toString**()

Package
fr.cnes.doi.exception

All current Exceptions.

fr.cnes.doi.exception
Class AuthenticationAccessException

```
java.lang.Object
   |
   +-java.lang.Throwable
      |
      +-java.lang.Exception
         |
         +-fr.cnes.doi.exception.AuthenticationAccessException
```

All Implemented Interfaces:
Serializable

---

public class **AuthenticationAccessException**
extends Exception

Exception created by the authentication access mechanism.
Author:
Jean-Chritophe Malapert (Jean-Christophe.malapert@cnes.fr)

Constructor Summary

public	[AuthenticationAccessException](String message, Exception ex) Constructor

Methods inherited from class `java.lang.Throwable`

addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Constructors

AuthenticationAccessException

```
public AuthenticationAccessException(String message,
                                     Exception ex)
```

Constructor

Parameters:
message - Message explaining the exception
ex - exception

---

fr.cnes.doi.exception
Class ClienSearchDataCiteException

```
java.lang.Object
    |
    +-java.lang.Throwable
        |
        +-java.lang.Exception
            |
            +-fr.cnes.doi.exception.ClienSearchDataCiteException
```

All Implemented Interfaces:
Serializable

---

public class **ClienSearchDataCiteException**
extends Exception

Exception for Client Cross Cite.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	**CLIENT_BAD_REQUEST** invalid XML, wrong prefix or request body must be exactly two lines: "DOI and URL; wrong domain, wrong prefix". Value: **400**
public static final	**CLIENT_ERROR_NOT_FOUND** DOI does not exist in our database. Value: **404**
public static final	**CONNECTOR_ERROR_COMMUNICATION** no login. Value: **1001**
public static final	**SUCCESS_CREATED** Operation successful. Value: **201**
public static final	**SUCCESS_NO_CONTENT** no DOIs founds. Value: **204**
public static final	**SUCCESS_OK** Operation successful. Value: **200**

Constructor Summary

public	**ClienSearchDataCiteException**(org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	**ClienSearchDataCiteException**(org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.

---

public	**ClienSearchDataCiteException**(org.restlet.data.Status status, Throwable cause)	
	Constructs a new exception with the specified detail cause.	
public	**ClienSearchDataCiteException**(org.restlet.data.Status status, String message, Throwable cause)	
	Constructs a new exception with the specified detail HTTP status, message and cause.	
public	**ClienSearchDataCiteException**(org.restlet.data.Status status, String message, org.restlet.representation.Representation responseEntity, Throwable cause)	
	Constructs a new exception with the specified detail HTTP status, response and cause.	

Method Summary

String	**getDetailMessage**()	
	Returns detail message;	
org.restlet.data.Status	**getStatus**()	
	Returns the status.	

Methods inherited from class `java.lang.Throwable`
addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

SUCCESS_CREATED

public static final int **SUCCESS_CREATED**

Operation successful. 201
Constant value: **201**

SUCCESS_OK

public static final int **SUCCESS_OK**

Operation successful. 200
Constant value: **200**

SUCCESS_NO_CONTENT

public static final int **SUCCESS_NO_CONTENT**

no DOIs founds. 204
Constant value: **204**

CLIENT_BAD_REQUEST

public static final int **CLIENT_BAD_REQUEST**

invalid XML, wrong prefix or request body must be exactly two lines: "DOI and URL; wrong domain, wrong prefix". 400
Constant value: **400**

CONNECTOR_ERROR_COMMUNICATION

public static final int **CONNECTOR_ERROR_COMMUNICATION**

no login. 1001
Constant value: **1001**

CLIENT_ERROR_NOT_FOUND

public static final int **CLIENT_ERROR_NOT_FOUND**

DOI does not exist in our database. 404
Constant value: **404**

Constructors

ClienSearchDataCiteException

public **ClienSearchDataCiteException**(org.restlet.data.Status status)

Constructs a new exception with HTTP status as its detail message.

Parameters:
status - HTTP status

ClienSearchDataCiteException

public **ClienSearchDataCiteException**(org.restlet.data.Status status,
                                       String message)

Constructs a new exception with the specified HTTP status and detail message.

Parameters:
status - HTTP message
message - message

ClienSearchDataCiteException

public **ClienSearchDataCiteException**(org.restlet.data.Status status,
                                       Throwable cause)

Constructs a new exception with the specified detail cause.

Parameters:
status - HTTP status
cause - cause

ClienSearchDataCiteException

public **ClienSearchDataCiteException**(org.restlet.data.Status status,
                                       String message,
                                       Throwable cause)

Constructs a new exception with the specified detail HTTP status, message and cause.

Parameters:
    `status` - HTTP status
    `message` - message
    `cause` - cause

ClienSearchDataCiteException

```
public ClienSearchDataCiteException(org.restlet.data.Status status,
                                    String message,
                                    org.restlet.representation.Representation
responseEntity,
                                    Throwable cause)
```

Constructs a new exception with the specified detail HTTP status, response and cause.

Parameters:
    `status` - HTTP status
    `message` - message
    `responseEntity` - Representation of the response
    `cause` - cause

Methods

getStatus

```
public org.restlet.data.Status getStatus()
```

Returns the status.

Returns:
    the status

getDetailMessage

```
public String getDetailMessage()
```

Returns detail message;

Returns:
    the detail message

fr.cnes.doi.exception
Class ClientCrossCiteException

```
java.lang.Object
    │
    +-java.lang.Throwable
        │
        +-java.lang.Exception
            │
            +-fr.cnes.doi.exception.ClientCrossCiteException
```

All Implemented Interfaces:
Serializable

---

public class **ClientCrossCiteException**
extends Exception

Exception for Client Cross Cite.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	**ClientCrossCiteException**(org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	**ClientCrossCiteException**(org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.
public	**ClientCrossCiteException**(org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	**ClientCrossCiteException**(org.restlet.data.Status status, String message, Throwable cause) Constructs a new exception with the specified detail HTTP status, message and cause.

Method Summary

String	**getDetailMessage**() Returns detail message;
org.restlet.data.Status	**getStatus**() Returns the status.

Methods inherited from class java.lang.Throwable

addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Constructors

ClientCrossCiteException

public **ClientCrossCiteException**(org.restlet.data.Status status)

Constructs a new exception with HTTP status as its detail message.

Parameters:
status - HTTP status

ClientCrossCiteException

public **ClientCrossCiteException**(org.restlet.data.Status status,
                                    String message)

Constructs a new exception with the specified HTTP status and detail message.

Parameters:
status - HTTP message
message - message

ClientCrossCiteException

public **ClientCrossCiteException**(org.restlet.data.Status status,
                                    Throwable cause)

Constructs a new exception with the specified detail cause.

Parameters:
status - HTTP status
cause - cause

ClientCrossCiteException

public **ClientCrossCiteException**(org.restlet.data.Status status,
                                    String message,
                                    Throwable cause)

Constructs a new exception with the specified detail HTTP status, message and cause.

Parameters:
status - HTTP status
message - message
cause - cause

Methods

getStatus

public org.restlet.data.Status **getStatus**()

Returns the status.

Returns:
the status

getDetailMessage

```
public String getDetailMessage()
```

Returns detail message;

Returns:
the detail message

getDetailMessage

```
public String getDetailMessage()
```

fr.cnes.doi.exception
Class ClientMdsException

```
java.lang.Object
    │
    +-java.lang.Throwable
        │
        +-java.lang.Exception
            │
            +-fr.cnes.doi.exception.ClientMdsException
```

All Implemented Interfaces:
Serializable

---

public class **ClientMdsException**
extends Exception

Exception for Client Cross Cite.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	CLIENT_BAD_REQUEST invalid XML, wrong prefix or request body must be exactly two lines: "DOI and URL; wrong domain, wrong prefix". Value: **400**
public static final	CLIENT_ERROR_CONFLICT DOIServer : Cannot know which role must be applied. Value: **409**
public static final	CLIENT_ERROR_FORBIDDEN login problem, quota exceeded or dataset belongs to another party. Value: **403**
public static final	CLIENT_ERROR_GONE the requested dataset was marked inactive (using DELETE method). Value: **410**
public static final	CLIENT_ERROR_NOT_FOUND DOI does not exist in our database. Value: **404**
public static final	CLIENT_ERROR_PRECONDITION_FAILED metadata must be uploaded first. Value: **412**
public static final	CLIENT_ERROR_UNAUTHORIZED no login. Value: **401**
public static final	CONNECTOR_ERROR_COMMUNICATION no login. Value: **1001**

---

public static final	SUCCESS_CREATED	Operation successful. Value: **201**
public static final	SUCCESS_NO_CONTENT	no DOIs founds. Value: **204**
public static final	SUCCESS_OK	Operation successful. Value: **200**

Constructor Summary

public	ClientMdsException(org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	ClientMdsException(org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.
public	ClientMdsException(org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	ClientMdsException(org.restlet.data.Status status, String message, Throwable cause) Constructs a new exception with the specified detail HTTP status, message and cause.
public	ClientMdsException(org.restlet.data.Status status, String message, org.restlet.representation.Representation responseEntity, Throwable cause) Constructs a new exception with the specified detail HTTP status, response and cause.

Method Summary

String	getDetailMessage() Returns detail message;
org.restlet.data.Status	getStatus() Returns the status.

Methods inherited from class `java.lang.Throwable`

addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

SUCCESS_CREATED

public static final int **SUCCESS_CREATED**

Operation successful. 201
Constant value: **201**

SUCCESS_OK

public static final int **SUCCESS_OK**

Operation successful. 200
Constant value: **200**

SUCCESS_NO_CONTENT

public static final int **SUCCESS_NO_CONTENT**

no DOIs founds. 204
Constant value: **204**

CLIENT_BAD_REQUEST

public static final int **CLIENT_BAD_REQUEST**

invalid XML, wrong prefix or request body must be exactly two lines: "DOI and URL; wrong domain, wrong prefix". 400
Constant value: **400**

CLIENT_ERROR_UNAUTHORIZED

public static final int **CLIENT_ERROR_UNAUTHORIZED**

no login. 401
Constant value: **401**

CONNECTOR_ERROR_COMMUNICATION

public static final int **CONNECTOR_ERROR_COMMUNICATION**

no login. 1001
Constant value: **1001**

CLIENT_ERROR_FORBIDDEN

public static final int **CLIENT_ERROR_FORBIDDEN**

login problem, quota exceeded or dataset belongs to another party. 403
Constant value: **403**

CLIENT_ERROR_NOT_FOUND

public static final int **CLIENT_ERROR_NOT_FOUND**

DOI does not exist in our database. 404
Constant value: **404**

CLIENT_ERROR_CONFLICT

public static final int **CLIENT_ERROR_CONFLICT**

> DOIServer : Cannot know which role must be applied. 409
> Constant value: **409**

CLIENT_ERROR_GONE

public static final int **CLIENT_ERROR_GONE**

> the requested dataset was marked inactive (using DELETE method). 410
> Constant value: **410**

CLIENT_ERROR_PRECONDITION_FAILED

public static final int **CLIENT_ERROR_PRECONDITION_FAILED**

> metadata must be uploaded first. 412
> Constant value: **412**

Constructors

ClientMdsException

public **ClientMdsException**(org.restlet.data.Status status)

> Constructs a new exception with HTTP status as its detail message.

> **Parameters:**
> status - HTTP status

ClientMdsException

public **ClientMdsException**(org.restlet.data.Status status,
                             String message)

> Constructs a new exception with the specified HTTP status and detail message.

> **Parameters:**
> status - HTTP message
> message - message

ClientMdsException

public **ClientMdsException**(org.restlet.data.Status status,
                             Throwable cause)

> Constructs a new exception with the specified detail cause.

> **Parameters:**
> status - HTTP status
> cause - cause

ClientMdsException

public **ClientMdsException**(org.restlet.data.Status status,
                             String message,
                             Throwable cause)

Constructs a new exception with the specified detail HTTP status, message and cause.

Parameters:
status - HTTP status
message - message
cause - cause

ClientMdsException

```
public ClientMdsException(org.restlet.data.Status status,
                          String message,
                          org.restlet.representation.Representation responseEntity,
                          Throwable cause)
```

Constructs a new exception with the specified detail HTTP status, response and cause.

Parameters:
status - HTTP status
message - message
responseEntity - Representation of the response
cause - cause

Methods

getStatus

```
public org.restlet.data.Status getStatus()
```

Returns the status.

Returns:
the status

getDetailMessage

```
public String getDetailMessage()
```

Returns detail message;

Returns:
the detail message

fr.cnes.doi.exception
Class DOIDbException

```
java.lang.Object
    │
    +-java.lang.Throwable
        │
        +-java.lang.Exception
            │
            +-fr.cnes.doi.exception.DOIDbException
```

All Implemented Interfaces:
Serializable

---

public class **DOIDbException**
extends Exception

Database Exception for DOI.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[DOIDbException](String message, java.sql.SQLException ex) Constructor.

Methods inherited from class `java.lang.Throwable`

addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage,
getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace,
printStackTrace, setStackTrace, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

DOIDbException

```
public DOIDbException(String message,
                      java.sql.SQLException ex)
```

Constructor.

Parameters:
message - message about the exception
ex - SQL exception

---

fr.cnes.doi.exception
Class DoiRuntimeException

```
java.lang.Object
    │
    +-java.lang.Throwable
        │
        +-java.lang.Exception
            │
            +-java.lang.RuntimeException
                │
                +-fr.cnes.doi.exception.DoiRuntimeException
```

All Implemented Interfaces:
> Serializable

---

public class **DoiRuntimeException**
extends RuntimeException

Runtime Exception for the project
Author:
> Claire

Constructor Summary

public	[DoiRuntimeException]()() Constructs a new runtime exception with null as its detail message.
public	[DoiRuntimeException]()(String message, Throwable cause) Constructs a new runtime exception with the specified detail message and cause.
public	[DoiRuntimeException]()(String message) Constructs a new runtime exception with the specified detail message.
public	[DoiRuntimeException]()(Throwable cause) Constructs a new runtime exception with the specified cause and a detail message of (cause==null ? null : cause.toString()) (which typically contains the class and detail message of cause).

Methods inherited from class java.lang.Throwable

addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Constructors

DoiRuntimeException

public **DoiRuntimeException**()

Constructs a new runtime exception with null as its detail message. The cause is not initialized, and may subsequently be initialized by a call to DoiRuntimeException.initCause.

DoiRuntimeException

```
public DoiRuntimeException(String message,
                               Throwable cause)
```

Constructs a new runtime exception with the specified detail message and cause. Note that the detail message associated with cause is not automatically incorporated in this runtime exception's detail message.

Parameters:
message - the detail message (which is saved for later retrieval by the DoiRuntimeException.getMessage() method).
cause - the cause (which is saved for later retrieval by the DoiRuntimeException.getCause() method). (A null value is permitted, and indicates that the cause is nonexistent or unknown.)

DoiRuntimeException

```
public DoiRuntimeException(String message)
```

Constructs a new runtime exception with the specified detail message. The cause is not initialized, and may subsequently be initialized by a call to DoiRuntimeException.initCause.

Parameters:
message - the detail message. The detail message is saved for later retrieval by the DoiRuntimeException.getMessage() method

DoiRuntimeException

```
public DoiRuntimeException(Throwable cause)
```

Constructs a new runtime exception with the specified cause and a detail message of (cause==null ? null : cause.toString()) (which typically contains the class and detail message of cause). This constructor is useful for runtime exceptions that are little more than wrappers for other throwables.

Parameters:
cause - the cause (which is saved for later retrieval by the DoiRuntimeException.getCause() method). (A null value is permitted, and indicates that the cause is nonexistent or unknown.)

fr.cnes.doi.exception
Class DoiServerException

```
java.lang.Object
    |
    +-java.lang.Throwable
        |
        +-java.lang.Exception
            |
            +-java.lang.RuntimeException
                |
                +-org.restlet.resource.ResourceException
                    |
                    +-fr.cnes.doi.exception.DoiServerException
```

All Implemented Interfaces:
Serializable

---

public class **DoiServerException**
extends org.restlet.resource.ResourceException

General Server Exception
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary	
public	**DoiServerException**(org.restlet.Application app, DoiMdsApplication.API_MDS error) Creates an exception based on the app and the error coming from Doi-server.
public	**DoiServerException**(org.restlet.Application app, DoiMdsApplication.API_MDS error, Exception ex) Creates an exception based on the app and the error coming from Doi-server.
public	**DoiServerException**(org.restlet.Application app, DoiMdsApplication.API_MDS error, String description) Creates an exception based on the app and the error coming from Doi-server.
public	**DoiServerException**(org.restlet.Application app, DoiMdsApplication.API_MDS error, String description, Throwable cause) Creates an exception based on the app and the error coming from Doi-server.
public	**DoiServerException**(org.restlet.Application app, ClientMDS.DATACITE_API_RESPONSE error) Creates an exception based on the app and the error coming from Doi-server.
public	**DoiServerException**(org.restlet.Application app, ClientMDS.DATACITE_API_RESPONSE error, Exception ex) Creates an exception based on the app and the error coming from Doi-server.
public	**DoiServerException**(org.restlet.Application app, ClientMDS.DATACITE_API_RESPONSE error, String description) Creates an exception based on the app and the error coming from Doi-server.
public	**DoiServerException**(org.restlet.Application app, ClientMDS.DATACITE_API_RESPONSE error, String description, Throwable cause) Creates an exception based on the app and the error coming from Doi-server.

	public	DoiServerException(org.restlet.Application app, org.restlet.data.Status status, String description, Throwable cause)
		Creates an exception based on the app and the error coming from Doi-server.
	public	DoiServerException(org.restlet.Application app, org.restlet.data.Status status, String description)
		Creates an exception based on the app and the error coming from Doi-server.

Methods inherited from class org.restlet.resource.ResourceException

getStatus, toString

Methods inherited from class java.lang.Throwable

addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

DoiServerException

public **DoiServerException**(org.restlet.Application app,
                              DoiMdsApplication.API_MDS error)

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
app - MDS application
error - MDS error

DoiServerException

public **DoiServerException**(org.restlet.Application app,
                              DoiMdsApplication.API_MDS error,
                              Exception ex)

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
app - MDS application
error - MDS error
ex - Exception

DoiServerException

public **DoiServerException**(org.restlet.Application app,
                              DoiMdsApplication.API_MDS error,
                              String description)

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
    `app` - MDS application
    `error` - MDS error
    `description` - Description

DoiServerException

```
public DoiServerException(org.restlet.Application app,
                          DoiMdsApplication.API_MDS error,
                          String description,
                          Throwable cause)
```

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
    `app` - MDS application
    `error` - MDS error
    `description` - Description
    `cause` - Exception

DoiServerException

```
public DoiServerException(org.restlet.Application app,
                          ClientMDS.DATACITE_API_RESPONSE error)
```

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
    `app` - MDS application
    `error` - Datacite error

DoiServerException

```
public DoiServerException(org.restlet.Application app,
                          ClientMDS.DATACITE_API_RESPONSE error,
                          Exception ex)
```

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
    `app` - MDS application
    `error` - Datacite error
    `ex` - Exception

DoiServerException

```
public DoiServerException(org.restlet.Application app,
                          ClientMDS.DATACITE_API_RESPONSE error,
                          String description)
```

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
    `app` - MDS application
    `error` - Datacite error
    `description` - description

DoiServerException

```
public DoiServerException(org.restlet.Application app,
                          ClientMDS.DATACITE_API_RESPONSE error,
                          String description,
                          Throwable cause)
```

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
app - MDS application
error - Datacite error
description - description
cause - Exception

DoiServerException

```
public DoiServerException(org.restlet.Application app,
                          org.restlet.data.Status status,
                          String description,
                          Throwable cause)
```

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
app - MDS application
status - Status
description - description
cause - Exception

DoiServerException

```
public DoiServerException(org.restlet.Application app,
                          org.restlet.data.Status status,
                          String description)
```

Creates an exception based on the app and the error coming from Doi-server.

Parameters:
app - MDS application
status - Status
description - description

fr.cnes.doi.exception
Class TokenSecurityException

```
java.lang.Object
    │
    +-java.lang.Throwable
         │
         +-java.lang.Exception
              │
              +-fr.cnes.doi.exception.TokenSecurityException
```

All Implemented Interfaces:
Serializable

---

public class **TokenSecurityException**
extends Exception

Exception for tokenSecurity.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[TokenSecurityException](org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	[TokenSecurityException](org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.
public	[TokenSecurityException](org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	[TokenSecurityException](org.restlet.data.Status status, String message, Throwable cause) Constructs a new exception with the specified detail HTTP status, message and cause.

Method Summary

org.restlet.data.Status	getStatus() Returns the status.

Methods inherited from class `java.lang.Throwable`

addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Constructors

TokenSecurityException

```
public TokenSecurityException(org.restlet.data.Status status)
```

Constructs a new exception with HTTP status as its detail message.

Parameters:
status - HTTP status

TokenSecurityException

```
public TokenSecurityException(org.restlet.data.Status status,
                              String message)
```

Constructs a new exception with the specified HTTP status and detail message.

Parameters:
status - HTTP message
message - message

TokenSecurityException

```
public TokenSecurityException(org.restlet.data.Status status,
                              Throwable cause)
```

Constructs a new exception with the specified detail cause.

Parameters:
status - HTTP status
cause - cause

TokenSecurityException

```
public TokenSecurityException(org.restlet.data.Status status,
                              String message,
                              Throwable cause)
```

Constructs a new exception with the specified detail HTTP status, message and cause.

Parameters:
status - HTTP status
message - message
cause - cause

Methods

getStatus

```
public org.restlet.data.Status getStatus()
```

Returns the status.

Returns:
the status

fr.cnes.doi.exception
Class ValidationMetadataException

```
java.lang.Object
    |
    +-java.lang.Throwable
        |
        +-java.lang.Exception
            |
            +-fr.cnes.doi.exception.ValidationMetadataException
```

All Implemented Interfaces:
Serializable

---

public class **ValidationMetadataException**
extends Exception

Exception during the validation of provided metadata.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	**ValidationMetadataException**() Constructs a new ValidationMetadataException with null as its detail message.
public	**ValidationMetadataException**(String message) Constructs a ValidationMetadataException with the specified detail message.
public	**ValidationMetadataException**(Throwable cause) Constructs a ValidationMetadataException with the specified cause and a detail message of (cause==null ? null : cause.toString()) (which typically contains the class and detail message of cause).
public	**ValidationMetadataException**(String message, Throwable cause) Constructs a ValidationMetadataException with the specified detail message and cause.

Methods inherited from class `java.lang.Throwable`

```
addSuppressed, fillInStackTrace, getCause, getLocalizedMessage, getMessage,
getStackTrace, getSuppressed, initCause, printStackTrace, printStackTrace,
printStackTrace, setStackTrace, toString
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

ValidationMetadataException

```
public ValidationMetadataException()
```

Constructs a new ValidationMetadataException with null as its detail message. The cause is not initialized, and may subsequently be initialized by a call to ValidationMetadataException.initCause.

ValidationMetadataException

public **ValidationMetadataException**(String message)

Constructs a ValidationMetadataException with the specified detail message. The cause is not initialized, and may subsequently be initialized by a call to DoiRuntimeException.initCause.

Parameters:
message - the detail message. The detail message is saved for later retrieval by the ValidationMetadataException.getMessage() method

ValidationMetadataException

public **ValidationMetadataException**(Throwable cause)

Constructs a ValidationMetadataException with the specified cause and a detail message of (cause==null ? null : cause.toString()) (which typically contains the class and detail message of cause). This constructor is useful for ValidationMetadataException that are little more than wrappers for other throwables.

Parameters:
cause - the cause (which is saved for later retrieval by the ValidationMetadataException.getCause() method). (A null value is permitted, and indicates that the cause is nonexistent or unknown.)

ValidationMetadataException

public **ValidationMetadataException**(String message,
                                       Throwable cause)

Constructs a ValidationMetadataException with the specified detail message and cause. Note that the detail message associated with cause is not automatically incorporated in this runtime exception's detail message.

Parameters:
message - the detail message (which is saved for later retrieval by the ValidationMetadataException.getMessage() method).
cause - the cause (which is saved for later retrieval by the ValidationMetadataException.getCause() method). (A null value is permitted, and indicates that the cause is nonexistent or unknown.)

Package
fr.cnes.doi.logging.api

Provides log Handler, Filter, Formatter and monitoring system for the API.

fr.cnes.doi.logging.api
Class DoiLogDataServer

```
java.lang.Object
    │
    +-org.restlet.service.Service
        │
        +-org.restlet.service.LogService
            │
            +-fr.cnes.doi.logging.api.DoiLogDataServer
```

public class **DoiLogDataServer**
extends org.restlet.service.LogService

Creates a LOG service to monitor the speed of applications.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `org.restlet.service.LogService`

responseLogTemplate

Constructor Summary

public	[DoiLogDataServer](String logName, boolean isEnabled) Constructs a new logger.

Method Summary

org.restlet.routing.F ilter	[createInboundFilter](org.restlet.Context context) Create the filter that should be invoked for incoming calls

Methods inherited from class `org.restlet.service.LogService`

createInboundFilter, getDefaultResponseLogMessage, getLoggableTemplate,
getLoggerName, getLogPropertiesRef, getResponseLogFormat, getResponseLogMessage,
isDebugging, isIdentityCheck, isLoggable, setDebugging, setIdentityCheck,
setLoggableTemplate, setLoggableTemplate, setLoggerName, setLogPropertiesRef,
setLogPropertiesRef, setResponseLogFormat, start

Methods inherited from class `org.restlet.service.Service`

createInboundFilter, createOutboundFilter, getContext, isEnabled, isStarted,
isStopped, setContext, setEnabled, start, stop

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

DoiLogDataServer

```
public DoiLogDataServer(String logName,
                        boolean isEnabled)
```

Constructs a new logger.

Parameters:
logName - logger name
isEnabled - true when logger is enabled otherwise false

Methods

createInboundFilter

```
public org.restlet.routing.Filter createInboundFilter(org.restlet.Context context)
```

Create the filter that should be invoked for incoming calls

Parameters:
context - context

Returns:
filter

```
public DoiLogDataServer(String logName,
                        boolean isEnabled)
```

fr.cnes.doi.logging.api
Class MonitoringLogFilter

```
java.lang.Object
    |
    +-org.restlet.Restlet
        |
        +-org.restlet.routing.Filter
            |
            +-org.restlet.engine.log.LogFilter
                |
                +-fr.cnes.doi.logging.api.MonitoringLogFilter
```
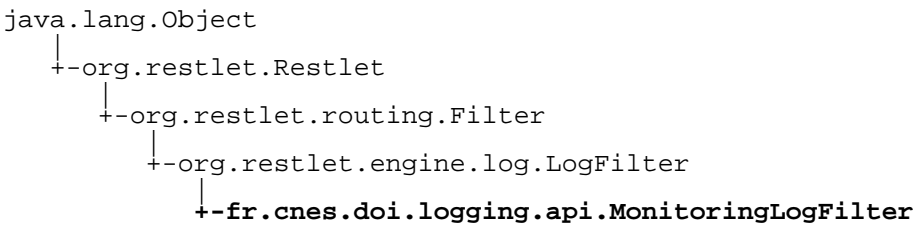
All Implemented Interfaces:
> org.restlet.Uniform

---

public class **MonitoringLogFilter**
extends org.restlet.engine.log.LogFilter

Filter to monitor the applications speed performance.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class org.restlet.engine.log.LogFilter
logService

Fields inherited from class org.restlet.routing.Filter
CONTINUE, SKIP, STOP

Constructor Summary

public	**MonitoringLogFilter**(org.restlet.Context context, DoiMonitoring doiMonitoring, org.restlet.service.LogService logService) Constructs a filter that filters applications to monitor

Method Summary

void	**afterHandle**(org.restlet.Request request, org.restlet.Response response) Allows filtering after processing by the next Restlet.

Methods inherited from class org.restlet.engine.log.LogFilter
afterHandle, beforeHandle

Methods inherited from class org.restlet.routing.Filter
afterHandle, beforeHandle, doHandle, getNext, handle, hasNext, setNext, setNext, start, stop

Methods inherited from class org.restlet.Restlet

```
createFinder, finalize, getApplication, getAuthor, getContext, getDescription,
getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle,
isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName,
setOwner, start, stop
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Constructors

MonitoringLogFilter

```
public MonitoringLogFilter(org.restlet.Context context,
                           DoiMonitoring doiMonitoring,
                           org.restlet.service.LogService logService)
```

Constructs a filter that filters applications to monitor

Parameters:
  context - the Context
  doiMonitoring - DOI monitoring
  logService - the org.restlet.service.LogService

Methods

afterHandle

```
protected void afterHandle(org.restlet.Request request,
        org.restlet.Response response)
```

Allows filtering after processing by the next Restlet. Does nothing by default.

Parameters:
  request - request
  response - response

Package
fr.cnes.doi.logging.business

Provides Handler for handle application logs.

fr.cnes.doi.logging.business
Class JsonMessage

```
java.lang.Object
   │
   +-fr.cnes.doi.logging.business.JsonMessage
```

All Implemented Interfaces:
   org.apache.logging.log4j.message.Message

---

public class **JsonMessage**
extends Object
implements org.apache.logging.log4j.message.Message

Converts an Object to a JSON String.

Constructor Summary

public	**JsonMessage**(Object object) Constructs a JsonMessage.

Method Summary

String	**getFormat**()
String	**getFormattedMessage**()
Object[]	**getParameters**()
Throwable	**getThrowable**()

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `org.apache.logging.log4j.message.Message`

```
getFormat, getFormattedMessage, getParameters, getThrowable
```

Constructors

JsonMessage

public **JsonMessage**(Object object)

Constructs a JsonMessage.

Parameters:
   object - the Object to serialize.

Methods

getFormattedMessage

```
public String getFormattedMessage()
```

getFormat

```
public String getFormat()
```

getParameters

```
public Object[] getParameters()
```

getThrowable

```
public Throwable getThrowable()
```

Package
fr.cnes.doi.logging.security

Provides a filter to log security event such as login to the administration page.

fr.cnes.doi.logging.security
Class DoiSecurityLogFilter

```
java.lang.Object
   │
   +-org.restlet.Restlet
        │
        +-org.restlet.routing.Filter
             │
             +-fr.cnes.doi.logging.security.DoiSecurityLogFilter
```

All Implemented Interfaces:
> org.restlet.Uniform

---

public class **DoiSecurityLogFilter**
extends org.restlet.routing.Filter

Log filter for DOI security
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `org.restlet.routing.Filter`
CONTINUE, SKIP, STOP

Constructor Summary

public	[DoiSecurityLogFilter](#)()
	Instantiates a new sitools log filter.

Method Summary

void	[afterHandle](#)(org.restlet.Request request, org.restlet.Response response)
	Allows filtering after processing by the next Restlet.

Methods inherited from class `org.restlet.routing.Filter`
afterHandle, beforeHandle, doHandle, getNext, handle, hasNext, setNext, setNext, start, stop

Methods inherited from class `org.restlet.Restlet`
createFinder, finalize, getApplication, getAuthor, getContext, getDescription, getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle, isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName, setOwner, start, stop

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `org.restlet.Uniform`
handle

Constructors

DoiSecurityLogFilter

```
public DoiSecurityLogFilter()
```

Instantiates a new sitools log filter.

Methods

afterHandle

```
protected void afterHandle(org.restlet.Request request,
          org.restlet.Response response)
```

Allows filtering after processing by the next Restlet. Does nothing by default.

Parameters:
>   `request` - request
>   `response` - response

See Also:
>   `Filter.afterHandle(org.restlet.Request, org.restlet.Response)`

Package
fr.cnes.doi.plugin

Provides classes to loads a plugin in the classpath.

fr.cnes.doi.plugin
Class AbstractAuthenticationPluginHelper

```
java.lang.Object
    │
    +-fr.cnes.doi.plugin.AbstractAuthenticationPluginHelper
```

All Implemented Interfaces:
> PluginConfiguration, PluginMetadata, IAuthenticationDBHelper

Direct Known Subclasses:
> DefaultLDAPImpl

---

public abstract class **AbstractAuthenticationPluginHelper**
extends Object
implements IAuthenticationDBHelper, PluginMetadata, PluginConfiguration

Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

protected	**AbstractAuthenticationPluginHelper**() Empty constructor.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `fr.cnes.doi.db.IAuthenticationDBHelper`

authenticateUser, getDOIAdmin, getDOIProjectMembers

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

getAuthor, getDescription, getLicense, getName, getOwner, getVersion

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

initConnection, isConfigured, release, setConfiguration, validate

---

Constructors

AbstractAuthenticationPluginHelper

protected **AbstractAuthenticationPluginHelper**()

> Empty constructor.

---

fr.cnes.doi.plugin
Class AbstractProjectSuffixPluginHelper

```
java.lang.Object
    │
    +-java.util.Observable
        │
        +-fr.cnes.doi.db.AbstractProjectSuffixDBHelper
            │
            +-fr.cnes.doi.plugin.AbstractProjectSuffixPluginHelper
```

All Implemented Interfaces:
      PluginConfiguration, PluginMetadata

Direct Known Subclasses:
      DefaultProjectSuffixImpl

---

public abstract class **AbstractProjectSuffixPluginHelper**
extends AbstractProjectSuffixDBHelper
implements PluginMetadata, PluginConfiguration

Author:
      Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.db.AbstractProjectSuffixDBHelper`

`ADD_RECORD`, `DELETE_RECORD`, `RENAME_RECORD`

Constructor Summary

protected	`AbstractProjectSuffixPluginHelper`() Empty constructor.

Methods inherited from class `fr.cnes.doi.db.AbstractProjectSuffixDBHelper`

`addProjectSuffix`, `deleteProject`, `getAllDOIUsersForProject`, `getIDFrom`, `getProjectFrom`, `getProjects`, `getProjectsFromUser`, `isExistID`, `isExistProjectName`, `renameProject`

Methods inherited from class `java.util.Observable`

`addObserver, clearChanged, countObservers, deleteObserver, deleteObservers, hasChanged, notifyObservers, notifyObservers, setChanged`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

`getAuthor`, `getDescription`, `getLicense`, `getName`, `getOwner`, `getVersion`

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

`initConnection`, `isConfigured`, `release`, `setConfiguration`, `validate`

Constructors

AbstractProjectSuffixPluginHelper

protected **AbstractProjectSuffixPluginHelper**()

Empty constructor.

fr.cnes.doi.plugin
Class AbstractTokenDBPluginHelper

```
java.lang.Object
    |
    +-java.util.Observable
        |
        +-fr.cnes.doi.db.AbstractTokenDBHelper
            |
            +-fr.cnes.doi.plugin.AbstractTokenDBPluginHelper
```

All Implemented Interfaces:
> PluginConfiguration, PluginMetadata

Direct Known Subclasses:
> DefaultTokenImpl

---

public abstract class **AbstractTokenDBPluginHelper**
extends AbstractTokenDBHelper
implements PluginMetadata, PluginConfiguration

Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

protected	AbstractTokenDBPluginHelper() Empty constructor.

Methods inherited from class `fr.cnes.doi.db.AbstractTokenDBHelper`

addToken, deleteToken, getTokens, isExist

Methods inherited from class `java.util.Observable`

addObserver, clearChanged, countObservers, deleteObserver, deleteObservers, hasChanged, notifyObservers, notifyObservers, setChanged

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

getAuthor, getDescription, getLicense, getName, getOwner, getVersion

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

initConnection, isConfigured, release, setConfiguration, validate

---

Constructors

AbstractTokenDBPluginHelper

protected **AbstractTokenDBPluginHelper**()

> Empty constructor.

AbstractTokenDBPluginHelper

protected **AbstractTokenDBPluginHelper**()

fr.cnes.doi.plugin
Class AbstractUserRolePluginHelper

```
java.lang.Object
    └─java.util.Observable
        └─fr.cnes.doi.db.AbstractUserRoleDBHelper
            └─fr.cnes.doi.plugin.AbstractUserRolePluginHelper
```

All Implemented Interfaces:
        PluginConfiguration, PluginMetadata

Direct Known Subclasses:
        DefaultUserRoleImpl

---

public abstract class **AbstractUserRolePluginHelper**
extends AbstractUserRoleDBHelper
implements PluginMetadata, PluginConfiguration

Plugin to define users and groups of the system.
Author:
        Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.db.AbstractUserRoleDBHelper`

`ADD_USER_NOTIFICATION`, `REMOVE_USER_NOTIFICATION`

Constructor Summary

protected	`AbstractUserRolePluginHelper`() Empty constructor.

Methods inherited from class `fr.cnes.doi.db.AbstractUserRoleDBHelper`

`addDOIUser`, `addDOIUser`, `addUserToRole`, `getRealm`, `getUsers`, `getUsersFromRole`, `isUserExist`, `removeDOIUser`, `removeUserToRole`, `setUserToAdminGroup`, `unsetUserFromAdminGroup`

Methods inherited from class `java.util.Observable`

`addObserver, clearChanged, countObservers, deleteObserver, deleteObservers, hasChanged, notifyObservers, notifyObservers, setChanged`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

`getAuthor`, `getDescription`, `getLicense`, `getName`, `getOwner`, `getVersion`

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

---

initConnection, isConfigured, release, setConfiguration, validate

Constructors

AbstractUserRolePluginHelper

protected **AbstractUserRolePluginHelper**()

> Empty constructor.

initConnection, isConfigured, release, setConfiguration, validate

fr.cnes.doi.plugin
Interface PluginConfiguration

All Known Implementing Classes:
AbstractTokenDBPluginHelper, AbstractUserRolePluginHelper, AbstractAuthenticationPluginHelper,
AbstractProjectSuffixPluginHelper

---

public interface **PluginConfiguration**
extends

Provides validation for plugin configuration.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Method Summary

abstract void	initConnection() Inits the connection
abstract boolean	isConfigured() Checks if the plugin is already configured
abstract void	release() Release the plugin.
abstract void	setConfiguration(Object configuration) Sets the configuration.
abstract StringBuilder	validate() Validates the parameters in the configuration file.

Methods

validate

public abstract StringBuilder **validate**()

Validates the parameters in the configuration file.

Returns:
the error messages.

---

setConfiguration

public abstract void **setConfiguration**(Object configuration)

Sets the configuration.

Parameters:
configuration - configuration parameters

---

isConfigured

`public abstract boolean` **`isConfigured`**`()`

Checks if the plugin is already configured

Returns:
True when the plugin is already configured otherwise false

initConnection

`public abstract void` **`initConnection`**`()`
`  throws` `DoiRuntimeException`

Inits the connection

Throws:
`DoiRuntimeException` - When an connection error happens

release

`public abstract void` **`release`**`()`

Release the plugin.

`public abstract boolean` **`isConfigured`**`()`

fr.cnes.doi.plugin
Class PluginFactory

```
java.lang.Object
    │
    └─fr.cnes.doi.plugin.PluginFactory
```

public final class **PluginFactory**
extends Object

Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Method Summary

static AbstractAuthenticationPluginHelper	getAuthenticationSystem() Returns the concrete implementation of the authentication system.
static AbstractProjectSuffixPluginHelper	getProjectSuffix() Returns the concrete implementation of the suffix project db.
static AbstractTokenDBPluginHelper	getToken() Returns the concrete implementation of the token db.
static AbstractUserRolePluginHelper	getUserManagement() Returns the concrete implementation of the user management interface.
static void	init(Map settings) Loads the path of plugins from Settings.
static boolean	isPassword(String keywordClassName, String key) Checks if the key is a password in the class keywordClassName related to the configuration file

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods

init

public static void **init**(Map settings)

> Loads the path of plugins from Settings.

> **Parameters:**
> > `settings` - config settings

getUserManagement

public static [AbstractUserRolePluginHelper]() **getUserManagement**()

>   Returns the concrete implementation of the user management interface.

>   **Returns:**
>   the plugin

getProjectSuffix

public static [AbstractProjectSuffixPluginHelper]() **getProjectSuffix**()

>   Returns the concrete implementation of the suffix project db.

>   **Returns:**
>   the plugin

getToken

public static [AbstractTokenDBPluginHelper]() **getToken**()

>   Returns the concrete implementation of the token db.

>   **Returns:**
>   the plugin

getAuthenticationSystem

public static [AbstractAuthenticationPluginHelper]() **getAuthenticationSystem**()

>   Returns the concrete implementation of the authentication system.

>   **Returns:**
>   the plugin

isPassword

```
public static boolean isPassword(String keywordClassName,
        String key)
  throws DoiRuntimeException
```

>   Checks if the key is a password in the class keywordClassName related to the configuration file

>   **Parameters:**
>   keywordClassName - plugin related to the configuration file
>   key - keyword

>   **Returns:**
>   True when key is a password otherwise false

>   **Throws:**
>   [DoiRuntimeException]() - When an error occurs

fr.cnes.doi.plugin
Interface PluginMetadata

All Known Implementing Classes:
AbstractTokenDBPluginHelper, AbstractUserRolePluginHelper, AbstractAuthenticationPluginHelper, AbstractProjectSuffixPluginHelper

---

public interface **PluginMetadata**
extends

Provides metadata about the plugin.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Method Summary

abstract String	getAuthor() Returns the author of the plugin.
abstract String	getDescription() Returns the description of the plugin
abstract String	getLicense() Returns the license of the plugin.
abstract String	getName() Returns the name of the plugin.
abstract String	getOwner() Returns the owner of the plugin.
abstract String	getVersion() Returns the version of the plugin.

Methods

getName

public abstract String **getName**()

Returns the name of the plugin.

Returns:
the name

---

getDescription

public abstract String **getDescription**()

Returns the description of the plugin

Returns:
description

---

getVersion

```
public abstract String getVersion()
```

Returns the version of the plugin.

Returns:
the version

getAuthor

```
public abstract String getAuthor()
```

Returns the author of the plugin.

Returns:
the author

getOwner

```
public abstract String getOwner()
```

Returns the owner of the plugin.

Returns:
the owner

getLicense

```
public abstract String getLicense()
```

Returns the license of the plugin.

Returns:
the license

fr.cnes.doi.plugin
Class Utils

```
java.lang.Object
    │
    +-fr.cnes.doi.plugin.Utils
```

public final class **Utils**
extends Object

Utility class for plugins.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Method Summary

static void	addPath(String path)
	Adds a path in the classPath.
static void	loadFileInClassPath(File file)
	Adds a file in a classpath.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods

addPath

```
public static void addPath(String path)
    throws IllegalArgumentException,
           NoSuchMethodException,
           IllegalAccessException,
           InvocationTargetException,
           java.net.MalformedURLException
```

> Adds a path in the classPath.

> **Parameters:**
> > `path` - path

> **Throws:**
> > `IllegalArgumentException` - - if path is null
> > `NoSuchMethodException` - - if a matching method is not found.
> > `IllegalAccessException` - - if this Method object is enforcing Java language access control and the underlying method is inaccessible.
> > `InvocationTargetException` - - if the underlying method throws an exception.
> > `MalformedURLException` - - If a protocol handler for the URL could not be found, or if some other error occurred while constructing the URL

loadFileInClassPath

```
public static void loadFileInClassPath(File file)
   throws NoSuchMethodException,
          IllegalAccessException,
          InvocationTargetException,
          java.net.MalformedURLException
```

Adds a file in a classpath.

Parameters:

file - file

Throws:

NoSuchMethodException - - if a matching method is not found.

IllegalAccessException - - if this Method object is enforcing Java language access control and the underlying method is inaccessible.

InvocationTargetException - - if the underlying method throws an exception.

MalformedURLException - - If a protocol handler for the URL could not be found, or if some other error occurred while constructing the URL

```
public static void loadFileInClassPath(File file)
   throws NoSuchMethodException,
```

Package
fr.cnes.doi.plugin.impl.db

Provides concrete classes implementing the interfaces of the external databases.

fr.cnes.doi.plugin.impl.db
Class DefaultLDAPImpl

```
java.lang.Object
    │
    +-fr.cnes.doi.plugin.AbstractAuthenticationPluginHelper
        │
        +-fr.cnes.doi.plugin.impl.db.DefaultLDAPImpl
```

All Implemented Interfaces:
>   PluginConfiguration,   PluginMetadata,   IAuthenticationDBHelper

---

public final class **DefaultLDAPImpl**
extends AbstractAuthenticationPluginHelper

Implementation of the LDAP.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	**LDAP_ATTR_FULLNAME** Attributes name in LDAP for fullname. Value: **Starter.LDAP.attr.fullname**
public static final	**LDAP_ATTR_MAIL** Attributes name in LDAP for mail. Value: **Starter.LDAP.attr.mail**
public static final	**LDAP_ATTR_USERNAME** Attributes name in LDAP for username. Value: **Starter.LDAP.attr.username**
public static final	**LDAP_DOI_ADMIN** LDAP username who is the administrator of the DOI server Value: **Starter.LDAP.user.admin**
public static final	**LDAP_PROJECT** LDAP project Value: **Starter.LDAP.project**
public static final	**LDAP_PWD** LDAP pwd Value: **Starter.LDAP.password**
public static final	**LDAP_SEARCH_GROUP** Specifies the filter expression to get the group. Value: **Starter.LDAP.search.group**
public static final	**LDAP_SEARCH_USER** Specifies the filter expression to get the users. Value: **Starter.LDAP.search.user**

public static final	**LDAP_URL**	LDAP url Value: **Starter.LDAP.url**
public static final	**LDAP_USER**	LDAP user Value: **Starter.LDAP.user**

Constructor Summary

public	**DefaultLDAPImpl**()

Method Summary

boolean	**authenticateUser**(String login, String password)
List	**getAllDOIProjectMembers**(javax.naming.ldap.InitialLdapContext context) Search on LDAP all users which are in the group Consts.LDAP_PROJECT.
String	**getAuthor**()
String	**getDescription**()
String	**getDOIAdmin**()
List	**getDOIProjectMembers**()
String	**getLicense**()
String	**getName**()
String	**getOwner**()
String	**getVersion**()
void	**initConnection**()
boolean	**isConfigured**()
static boolean	**isPassword**(String key) Checks if the keyword is a password.
void	**release**()
void	**setConfiguration**(Object configuration)
StringBuilder	**validate**()

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `fr.cnes.doi.db.IAuthenticationDBHelper`

`authenticateUser`, `getDOIAdmin`, `getDOIProjectMembers`

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

`getAuthor`, `getDescription`, `getLicense`, `getName`, `getOwner`, `getVersion`

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

`initConnection`, `isConfigured`, `release`, `setConfiguration`, `validate`

Fields

LDAP_URL

public static final java.lang.String **LDAP_URL**

> LDAP url
> Constant value: **Starter.LDAP.url**

LDAP_USER

public static final java.lang.String **LDAP_USER**

> LDAP user
> Constant value: **Starter.LDAP.user**

LDAP_PWD

public static final java.lang.String **LDAP_PWD**

> LDAP pwd
> Constant value: **Starter.LDAP.password**

LDAP_PROJECT

public static final java.lang.String **LDAP_PROJECT**

> LDAP project
> Constant value: **Starter.LDAP.project**

LDAP_DOI_ADMIN

public static final java.lang.String **LDAP_DOI_ADMIN**

> LDAP username who is the administrator of the DOI server
> Constant value: **Starter.LDAP.user.admin**

LDAP_SEARCH_GROUP

public static final java.lang.String **LDAP_SEARCH_GROUP**

(continued from last page)

Specifies the filter expression to get the group.
Constant value: **Starter.LDAP.search.group**

LDAP_SEARCH_USER

public static final java.lang.String **LDAP_SEARCH_USER**

Specifies the filter expression to get the users.
Constant value: **Starter.LDAP.search.user**

LDAP_ATTR_USERNAME

public static final java.lang.String **LDAP_ATTR_USERNAME**

Attributes name in LDAP for username.
Constant value: **Starter.LDAP.attr.username**

LDAP_ATTR_MAIL

public static final java.lang.String **LDAP_ATTR_MAIL**

Attributes name in LDAP for mail.
Constant value: **Starter.LDAP.attr.mail**

LDAP_ATTR_FULLNAME

public static final java.lang.String **LDAP_ATTR_FULLNAME**

Attributes name in LDAP for fullname.
Constant value: **Starter.LDAP.attr.fullname**

Constructors

DefaultLDAPImpl

public **DefaultLDAPImpl**()

Methods

setConfiguration

public void **setConfiguration**(Object configuration)

initConnection

public void **initConnection**()
  throws DoiRuntimeException

getDOIProjectMembers

public List **getDOIProjectMembers**()
  throws AuthenticationAccessException

authenticateUser

```
public boolean authenticateUser(String login,
        String password)
```

getAllDOIProjectMembers

```
public List getAllDOIProjectMembers(javax.naming.ldap.InitialLdapContext context)
  throws AuthenticationAccessException
```

Search on LDAP all users which are in the group Consts.LDAP_PROJECT.

Parameters:
> `context` - context

Returns:
> all LDAP users which are in the group Consts.LDAP_PROJECT

Throws:
> AuthenticationAccessException - Exception

getName

```
public String getName()
```

getDescription

```
public String getDescription()
```

getVersion

```
public String getVersion()
```

getAuthor

```
public String getAuthor()
```

getOwner

```
public String getOwner()
```

getLicense

```
public String getLicense()
```

getDOIAdmin

```
public String getDOIAdmin()
```

validate

```
public StringBuilder validate()
```

isPassword

```
public static boolean isPassword(String key)
```

Checks if the keyword is a password.

Parameters:
   key - keyword to check

Returns:
   True when the keyword is a password otherwise False

release

```
public void release()
```

isConfigured

```
public boolean isConfigured()
```

fr.cnes.doi.plugin.impl.db
Class DefaultProjectSuffixImpl

```
java.lang.Object
    └─java.util.Observable
        └─fr.cnes.doi.db.AbstractProjectSuffixDBHelper
            └─fr.cnes.doi.plugin.AbstractProjectSuffixPluginHelper
                └─fr.cnes.doi.plugin.impl.db.DefaultProjectSuffixImpl
```

All Implemented Interfaces:
        PluginConfiguration, PluginMetadata

---

public final class **DefaultProjectSuffixImpl**
extends AbstractProjectSuffixPluginHelper

Default implementation of the project suffix database.
Author:
        Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.db.AbstractProjectSuffixDBHelper`
ADD_RECORD, DELETE_RECORD, RENAME_RECORD

Constructor Summary

public	DefaultProjectSuffixImpl()

Method Summary

boolean	addProjectSuffix(int projectID, String projectName) Adds a suffix project in the database.
boolean	deleteProject(int projectID) Deletes a suffix project from the database.
List	getAllDOIUsersForProject(int doiSuffix) Returns the users related to a project.
String	getAuthor()
String	getDescription()
int	getIDFrom(String projectName) Returns the project suffix based on the project name.
String	getLicense()
String	getName()
String	getOwner()

String	`getProjectFrom(int projectID)`	
	Returns the project name based on the suffix project.	
List	`getProjects()`	
	Returns the database records.	
List	`getProjectsFromUser(String userName)`	
	Returns the projects related to a specific user.	
String	`getVersion()`	
void	`initConnection()`	
boolean	`isConfigured()`	
boolean	`isExistID(int projectID)`	
	Tests is a suffix project exists in the database.	
boolean	`isExistProjectName(String projectName)`	
	Tests is the project name exists in the database.	
static boolean	`isPassword(String key)`	
	Checks if the keyword is a password.	
void	`release()`	
boolean	`renameProject(int projectId, String newProjectName)`	
	Rename a project in the database.	
void	`setConfiguration(Object configuration)`	
StringBuilder	`validate()`	

Methods inherited from class `fr.cnes.doi.db.AbstractProjectSuffixDBHelper`

`addProjectSuffix`, `deleteProject`, `getAllDOIUsersForProject`, `getIDFrom`, `getProjectFrom`, `getProjects`, `getProjectsFromUser`, `isExistID`, `isExistProjectName`, `renameProject`

Methods inherited from class `java.util.Observable`

`addObserver`, `clearChanged`, `countObservers`, `deleteObserver`, `deleteObservers`, `hasChanged`, `notifyObservers`, `notifyObservers`, `setChanged`

Methods inherited from class `java.lang.Object`

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

`getAuthor`, `getDescription`, `getLicense`, `getName`, `getOwner`, `getVersion`

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

`initConnection`, `isConfigured`, `release`, `setConfiguration`, `validate`

Constructors

DefaultProjectSuffixImpl

```
public DefaultProjectSuffixImpl()
```

Methods

setConfiguration

```
public void setConfiguration(Object configuration)
```

initConnection

```
public void initConnection()
    throws DoiRuntimeException
```

addProjectSuffix

```
public boolean addProjectSuffix(int projectID,
        String projectName)
```

   Adds a suffix project in the database.

deleteProject

```
public boolean deleteProject(int projectID)
```

   Deletes a suffix project from the database.

isExistID

```
public boolean isExistID(int projectID)
```

   Tests is a suffix project exists in the database.

isExistProjectName

```
public boolean isExistProjectName(String projectName)
```

   Tests is the project name exists in the database.

getProjectFrom

```
public String getProjectFrom(int projectID)
    throws DOIDbException
```

   Returns the project name based on the suffix project.

getIDFrom

```
public int getIDFrom(String projectName)
    throws DOIDbException
```

> Returns the project suffix based on the project name.

getProjects

```
public List getProjects()
    throws DOIDbException
```

> Returns the database records.

getProjectsFromUser

```
public List getProjectsFromUser(String userName)
    throws DOIDbException
```

> Returns the projects related to a specific user.

renameProject

```
public boolean renameProject(int projectId,
        String newProjectName)
```

> Rename a project in the database.

getName

```
public String getName()
```

getDescription

```
public String getDescription()
```

getVersion

```
public String getVersion()
```

getAuthor

```
public String getAuthor()
```

getOwner

```
public String getOwner()
```

getLicense

```
public String getLicense()
```

getAllDOIUsersForProject

```
public List getAllDOIUsersForProject(int doiSuffix)
```

> Returns the users related to a project.

validate

```
public StringBuilder validate()
```

isPassword

```
public static boolean isPassword(String key)
```

> Checks if the keyword is a password.

> **Parameters:**
> key - keyword to check

> **Returns:**
> True when the keyword is a password otherwise False

release

```
public void release()
```

isConfigured

```
public boolean isConfigured()
```

fr.cnes.doi.plugin.impl.db
Class DefaultTokenImpl

```
java.lang.Object
    |
    +-java.util.Observable
        |
        +-fr.cnes.doi.db.AbstractTokenDBHelper
            |
            +-fr.cnes.doi.plugin.AbstractTokenDBPluginHelper
                |
                +-fr.cnes.doi.plugin.impl.db.DefaultTokenImpl
```

All Implemented Interfaces:
        PluginConfiguration, PluginMetadata

---

public final class **DefaultTokenImpl**
extends AbstractTokenDBPluginHelper

Default implementation of the token database.
Author:
        Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	DefaultTokenImpl()

Method Summary

boolean	addToken(String jwt) Adds a token in the database
boolean	deleteToken(String jwt) Deletes a token from the database.
String	getAuthor()
String	getDescription()
String	getLicense()
String	getName()
String	getOwner()
List	getTokens() Return the token list from database.
String	getVersion()
void	initConnection()

boolean	`isConfigured()`	
boolean	`isExist(String jwt)` Tests if the token exists in the database.	
static boolean	`isPassword(String key)` Checks if the keyword is a password.	
void	`release()`	
void	`setConfiguration(Object configuration)`	
StringBuilder	`validate()`	

Methods inherited from class `fr.cnes.doi.db.AbstractTokenDBHelper`

`addToken`, `deleteToken`, `getTokens`, `isExist`

Methods inherited from class `java.util.Observable`

`addObserver, clearChanged, countObservers, deleteObserver, deleteObservers, hasChanged, notifyObservers, notifyObservers, setChanged`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

`getAuthor`, `getDescription`, `getLicense`, `getName`, `getOwner`, `getVersion`

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

`initConnection`, `isConfigured`, `release`, `setConfiguration`, `validate`

Constructors

DefaultTokenImpl

public **DefaultTokenImpl**()

Methods

setConfiguration

public void **setConfiguration**(Object configuration)

initConnection

```
public void initConnection()
  throws DoiRuntimeException
```

addToken

```
public boolean addToken(String jwt)
```

> Adds a token in the database

deleteToken

```
public boolean deleteToken(String jwt)
```

> Deletes a token from the database.

isExist

```
public boolean isExist(String jwt)
```

> Tests if the token exists in the database.

getTokens

```
public List getTokens()
  throws DOIDbException
```

> Return the token list from database.

getName

```
public String getName()
```

getDescription

```
public String getDescription()
```

getVersion

```
public String getVersion()
```

getAuthor

```
public String getAuthor()
```

getOwner

```
public String getOwner()
```

getLicense

```
public String getLicense()
```

validate

```
public StringBuilder validate()
```

isPassword

```
public static boolean isPassword(String key)
```

Checks if the keyword is a password.

Parameters:
key - keyword to check

Returns:
True when the keyword is a password otherwise False

release

```
public void release()
```

isConfigured

```
public boolean isConfigured()
```

fr.cnes.doi.plugin.impl.db
Class DefaultUserRoleImpl

```
java.lang.Object
    │
    +-java.util.Observable
        │
        +-fr.cnes.doi.db.AbstractUserRoleDBHelper
            │
            +-fr.cnes.doi.plugin.AbstractUserRolePluginHelper
                │
                +-fr.cnes.doi.plugin.impl.db.DefaultUserRoleImpl
```

All Implemented Interfaces:
    PluginConfiguration, PluginMetadata

---

public final class **DefaultUserRoleImpl**
extends AbstractUserRolePluginHelper

Default implementation of the authentication plugin. This implementation defines users/groups/roles.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.db.AbstractUserRoleDBHelper`

`ADD_USER_NOTIFICATION`, `REMOVE_USER_NOTIFICATION`

Constructor Summary

public	`DefaultUserRoleImpl()`

Method Summary

boolean	`addDOIUser`(String username, Boolean admin) Add a DOI user
boolean	`addDOIUser`(String username, Boolean admin, String email) Add a DOI user
boolean	`addUserToRole`(String user, int role) Adds an user to a specific role.
String	`getAuthor`()
String	`getDescription`()
String	`getLicense`()
String	`getName`()
String	`getOwner`()
List	`getUsers`() Returns the allowed users for authentication.

List	getUsersFromRole(int roleName) Get users from a specific role.	
String	getVersion()	
void	initConnection()	
boolean	isConfigured()	
static boolean	isPassword(String key) Checks if the keyword is a password.	
boolean	isUserExist(String username) Tests if the user exists.	
void	release()	
boolean	removeDOIUser(String username) Removes the user	
boolean	removeUserToRole(String user, int role) Removes an user from a specific role.	
void	setConfiguration(Object configuration)	
boolean	setUserToAdminGroup(String user) Add user to Administrators group	
boolean	unsetUserFromAdminGroup(String user) Remove user to Administrators group	
StringBuilder	validate()	

Methods inherited from class `fr.cnes.doi.db.AbstractUserRoleDBHelper`

addDOIUser, addDOIUser, addUserToRole, getRealm, getUsers, getUsersFromRole, isUserExist, removeDOIUser, removeUserToRole, setUserToAdminGroup, unsetUserFromAdminGroup

Methods inherited from class `java.util.Observable`

addObserver, clearChanged, countObservers, deleteObserver, deleteObservers, hasChanged, notifyObservers, notifyObservers, setChanged

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `fr.cnes.doi.plugin.PluginMetadata`

getAuthor, getDescription, getLicense, getName, getOwner, getVersion

Methods inherited from interface `fr.cnes.doi.plugin.PluginConfiguration`

initConnection, isConfigured, release, setConfiguration, validate

Constructors

DefaultUserRoleImpl

```
public DefaultUserRoleImpl()
```

Methods

setConfiguration

```
public void setConfiguration(Object configuration)
```

initConnection

```
public void initConnection()
    throws DoiRuntimeException
```

getUsers

```
public List getUsers()
    throws DOIDbException
```

     Returns the allowed users for authentication.

getUsersFromRole

```
public List getUsersFromRole(int roleName)
    throws DOIDbException
```

     Get users from a specific role.

addUserToRole

```
public boolean addUserToRole(String user,
        int role)
```

     Adds an user to a specific role.

removeUserToRole

```
public boolean removeUserToRole(String user,
        int role)
```

     Removes an user from a specific role.

setUserToAdminGroup

```
public boolean setUserToAdminGroup(String user)
```

     Add user to Administrators group

unsetUserFromAdminGroup

```
public boolean unsetUserFromAdminGroup(String user)
```

    Remove user to Administrators group

isUserExist

```
public boolean isUserExist(String username)
```

    Tests if the user exists.

addDOIUser

```
public boolean addDOIUser(String username,
        Boolean admin)
```

    Add a DOI user

addDOIUser

```
public boolean addDOIUser(String username,
        Boolean admin,
        String email)
```

    Add a DOI user

removeDOIUser

```
public boolean removeDOIUser(String username)
```

    Removes the user

getName

```
public String getName()
```

getDescription

```
public String getDescription()
```

getVersion

```
public String getVersion()
```

getAuthor

```
public String getAuthor()
```

getOwner

```
public String getOwner()
```

getLicense

```
public String getLicense()
```

validate

```
public StringBuilder validate()
```

isPassword

```
public static boolean isPassword(String key)
```

Checks if the keyword is a password.

Parameters:
 `key` - keyword to check

Returns:
 True when the keyword is a password otherwise False

release

```
public void release()
```

isConfigured

```
public boolean isConfigured()
```

Package
fr.cnes.doi.plugin.impl.db.impl

Provides database access implementation using JDBC connector.

fr.cnes.doi.plugin.impl.db.impl
Class DOIDbDataAccessServiceImpl

java.lang.Object
```
   │
   └─fr.cnes.doi.plugin.impl.db.impl.DOIDbDataAccessServiceImpl
```

All Implemented Interfaces:
> DOIDbDataAccessService

---

public final class **DOIDbDataAccessServiceImpl**
extends Object
implements DOIDbDataAccessService

Implementation of the `DOIDbDataAccessService` using JDBC.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	DB_MAX_ACTIVE_CONNECTIONS Maximum number of active connections that can be allocated at the same time. Value: **Starter.Database.MaxActiveConnections**	
public static final	DB_MAX_IDLE_CONNECTIONS Minimum number of connection object that are to be kept alive in the pool Value: **Starter.Database.MaxIdleConnections**	
public static final	DB_MIN_IDLE_CONNECTIONS Minimum number of connection object that are to be kept alive in the pool Value: **Starter.Database.MinIdleConnections**	
public static final	DB_PWD Database password Value: **Starter.Database.Pwd**	
public static final	DB_URL Database url Value: **Starter.Database.Doidburl**	
public static final	DB_USER Database user Value: **Starter.Database.User**	

Constructor Summary

public	DOIDbDataAccessServiceImpl() Constructor.
public	DOIDbDataAccessServiceImpl(String dbUrl, String dbUser, String dbPwd, Map options) Create the implementation of DOI database by creation the JDBC connection from a specific configuration file.

Method Summary

void	**addDOIProject**(int suffix, String projectname)
void	**addDOIProjectToUser**(String username, int suffix)
void	**addDOIUser**(String username, Boolean admin)
void	**addDOIUser**(String username, Boolean admin, String email)
void	**addToken**(String token)
void	**close**()
void	**deleteToken**(String token)
List	**getAllDOIProjects**()
List	**getAllDOIProjectsForUser**(String username)
List	**getAllDOIusers**()
List	**getAllDOIUsersForProject**(int suffix)
String	**getDOIProjectName**(int suffix)
List	**getTokens**()
void	**init**(String dbUrl, String dbUser, String dbPwd, Map options) Initialize the JDBC connection when it is not defined.
boolean	**isAdmin**(String username)
boolean	**isUserExist**(String username)
void	**removeDOIProject**(int suffix)
void	**removeDOIProjectFromUser**(String username, int suffix)
void	**removeDOIUser**(String username)
void	**renameDOIProject**(int suffix, String newprojectname)
void	**setAdmin**(String username)
void	**unsetAdmin**(String username)

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface fr.cnes.doi.plugin.impl.db.service.DOIDbDataAccessService

addDOIProject, addDOIProjectToUser, addDOIUser, addDOIUser, addToken, close,
deleteToken, getAllDOIProjects, getAllDOIProjectsForUser, getAllDOIusers,
getAllDOIUsersForProject, getDOIProjectName, getTokens, isAdmin, isUserExist,
removeDOIProject, removeDOIProjectFromUser, removeDOIUser, renameDOIProject,
setAdmin, unsetAdmin

Fields

DB_URL

```
public static final java.lang.String DB_URL
```

> Database url
> Constant value: **Starter.Database.Doidburl**

DB_USER

```
public static final java.lang.String DB_USER
```

> Database user
> Constant value: **Starter.Database.User**

DB_PWD

```
public static final java.lang.String DB_PWD
```

> Database password
> Constant value: **Starter.Database.Pwd**

DB_MIN_IDLE_CONNECTIONS

```
public static final java.lang.String DB_MIN_IDLE_CONNECTIONS
```

> Minimum number of connection object that are to be kept alive in the pool
> Constant value: **Starter.Database.MinIdleConnections**

DB_MAX_IDLE_CONNECTIONS

```
public static final java.lang.String DB_MAX_IDLE_CONNECTIONS
```

> Minimum number of connection object that are to be kept alive in the pool
> Constant value: **Starter.Database.MaxIdleConnections**

DB_MAX_ACTIVE_CONNECTIONS

```
public static final java.lang.String DB_MAX_ACTIVE_CONNECTIONS
```

> Maximum number of active connections that can be allocated at the same time.
> Constant value: **Starter.Database.MaxActiveConnections**

Constructors

DOIDbDataAccessServiceImpl

```
public DOIDbDataAccessServiceImpl()
```

>   Constructor.

DOIDbDataAccessServiceImpl

```
public DOIDbDataAccessServiceImpl(String dbUrl,
                                  String dbUser,
                                  String dbPwd,
                                  Map options)
```

>   Create the implementation of DOI database by creation the JDBC connection from a specific configuration file.

>   **Parameters:**
>   dbUrl - database URL
>   dbUser - database user
>   dbPwd - database password
>   options - database options

Methods

init

```
public void init(String dbUrl,
        String dbUser,
        String dbPwd,
        Map options)
```

>   Initialize the JDBC connection when it is not defined.

>   **Parameters:**
>   dbUrl - database URL
>   dbUser - database user
>   dbPwd - database password
>   options - database options

---

getAllDOIusers

```
public List getAllDOIusers()
  throws DOIDbException
```

---

getAllDOIProjects

```
public List getAllDOIProjects()
  throws DOIDbException
```

---

getAllDOIProjectsForUser

```
public List getAllDOIProjectsForUser(String username)
  throws DOIDbException
```

---

getAllDOIUsersForProject

```
public List getAllDOIUsersForProject(int suffix)
    throws DOIDbException
```

addDOIUser

```
public void addDOIUser(String username,
        Boolean admin)
  throws DOIDbException
```

addDOIProject

```
public void addDOIProject(int suffix,
        String projectname)
  throws DOIDbException
```

addDOIProjectToUser

```
public void addDOIProjectToUser(String username,
        int suffix)
  throws DOIDbException
```

removeDOIProjectFromUser

```
public void removeDOIProjectFromUser(String username,
        int suffix)
  throws DOIDbException
```

setAdmin

```
public void setAdmin(String username)
  throws DOIDbException
```

unsetAdmin

```
public void unsetAdmin(String username)
  throws DOIDbException
```

renameDOIProject

```
public void renameDOIProject(int suffix,
        String newprojectname)
  throws DOIDbException
```

getDOIProjectName

```
public String getDOIProjectName(int suffix)
  throws DOIDbException
```

addToken

```
public void addToken(String token)
  throws DOIDbException
```

deleteToken

```
public void deleteToken(String token)
  throws DOIDbException
```

getTokens

```
public List getTokens()
  throws DOIDbException
```

removeDOIUser

```
public void removeDOIUser(String username)
  throws DOIDbException
```

addDOIUser

```
public void addDOIUser(String username,
        Boolean admin,
        String email)
  throws DOIDbException
```

removeDOIProject

```
public void removeDOIProject(int suffix)
  throws DOIDbException
```

isAdmin

```
public boolean isAdmin(String username)
  throws DOIDbException
```

isUserExist

```
public boolean isUserExist(String username)
  throws DOIDbException
```

close

```
public void close()
  throws DOIDbException
```

isUserExist

```
public boolean isUserExist(String username)
```

fr.cnes.doi.plugin.impl.db.impl
Class JDBCConnector

```
java.lang.Object
   │
   +-fr.cnes.doi.plugin.impl.db.impl.JDBCConnector
```

---

public class **JDBCConnector**
extends Object

Class that handles the connection to the DOI database. As below, the structure of the DOI database.

```
CREATE TABLE doi_schema.T_DOI_USERS (
username varchar(255) NOT NULL,
admin boolean NOT NULL,
email varchar(255),
PRIMARY KEY (username)
);


CREATE TABLE doi_schema.T_DOI_PROJECT (
suffix int NOT NULL,
projectname varchar(1024) NOT NULL,
PRIMARY KEY (suffix)
);


CREATE TABLE doi_schema.T_DOI_ASSIGNATIONS (
username varchar(255) NOT NULL,
suffix int NOT NULL,
PRIMARY KEY (username, suffix)
);


CREATE TABLE doi_schema.T_DOI_TOKENS (
token varchar(255) NOT NULL,
PRIMARY KEY (token)
);
```

Author:
> Jean-Christophe Malapert (jean-Christophe.malapert@cnes.fr)

Field Summary

public static final	[DEFAULT_MAX_ACTIVE_CONNECTION](#)
	    Default max active connection #DEFAULT_MAX_ACTIVE_CONNECTION.
	    Value: **50**

public static final	[DEFAULT_MAX_IDLE_CONNECTION](#)
	    Default max IDL connection #DEFAULT_MAX_IDLE_CONNECTION.
	    Value: **50**

---

public static final	DEFAULT_MIN_IDLE_CONNECTION
	Default min IDL connection #DEFAULT_MIN_IDLE_CONNECTION. Value: **10**

Constructor Summary

public	JDBCConnector(String dbUrl, String dbUser, String dbPwd, Map options)
	Creates the JDBC connector based on a specific configuration file.

Method Summary

void	close()
	Closes and releases all idle connections that are currently stored in the connection pool associated with this data source.
java.sql.Connection	getConnection()
	Creates (if necessary) and return a connection to the database.

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

DEFAULT_MIN_IDLE_CONNECTION

public static final int **DEFAULT_MIN_IDLE_CONNECTION**

Default min IDL connection #DEFAULT_MIN_IDLE_CONNECTION.
Constant value: **10**

DEFAULT_MAX_IDLE_CONNECTION

public static final int **DEFAULT_MAX_IDLE_CONNECTION**

Default max IDL connection #DEFAULT_MAX_IDLE_CONNECTION.
Constant value: **50**

DEFAULT_MAX_ACTIVE_CONNECTION

public static final int **DEFAULT_MAX_ACTIVE_CONNECTION**

Default max active connection #DEFAULT_MAX_ACTIVE_CONNECTION.
Constant value: **50**

Constructors

JDBCConnector

public **JDBCConnector**(String dbUrl,
                        String dbUser,
                        String dbPwd,
                        Map options)

Creates the JDBC connector based on a specific configuration file.

Parameters:
    `dbUrl` - database URL
    `dbUser` - database user
    `dbPwd` - database password
    `options` - database options

Methods

getConnection

```
public java.sql.Connection getConnection()
  throws java.sql.SQLException
```

Creates (if necessary) and return a connection to the database.

Returns:
    a database connection

Throws:
    `SQLException` - if a database access error occurs

close

```
public void close()
```

Closes and releases all idle connections that are currently stored in the connection pool associated with this data source.

Package
fr.cnes.doi.plugin.impl.db.service

Provides the database access that stores the DOI, project and tokens

fr.cnes.doi.plugin.impl.db.service
Class DatabaseSingleton

```
java.lang.Object
   │
   +-fr.cnes.doi.plugin.impl.db.service.DatabaseSingleton
```

public final class **DatabaseSingleton**
extends Object

Database singleton for accessing to the DOI database.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Method Summary

DOIDbDataAccessServic e	getDatabaseAccess() Returns the database access.
static DatabaseSingleton	getInstance() Returns the instance
void	init(String dbUrl, String dbUser, String dbPwd, Map options) Initialize the DOI database.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods

getInstance

```
public static DatabaseSingleton getInstance()
```

> Returns the instance

> **Returns:**
> > the instance

init

```
public void init(String dbUrl,
        String dbUser,
        String dbPwd,
        Map options)
```

> Initialize the DOI database.

> **Parameters:**
> > `dbUrl` - database URL
> > `dbUser` - database user
> > `dbPwd` - database password

`options` - database options

getDatabaseAccess

public [DOIDbDataAccessService](#) **getDatabaseAccess**()

Returns the database access.

Returns:
the database access.

getDatabaseAccess

public [DOIDbDataAccessService](#) **getDatabaseAccess**()

fr.cnes.doi.plugin.impl.db.service
Interface DOIDbDataAccessService

All Known Implementing Classes:
DOIDbDataAccessServiceImpl

---

public interface **DOIDbDataAccessService**
extends

Interface between server and database

Method Summary

abstract void	addDOIProject(int suffix, String projectname) Add a DOI project
abstract void	addDOIProjectToUser(String username, int suffix) Assign a DOI project to a user
abstract void	addDOIUser(String username, Boolean admin) Add a DOI user
abstract void	addDOIUser(String username, Boolean admin, String email) Add a DOI user
abstract void	addToken(String token) Add token
abstract void	close() Close and release all the Data access connections.
abstract void	deleteToken(String token) Delete token
abstract List	getAllDOIProjects() Get all DOI projects from data base
abstract List	getAllDOIProjectsForUser(String username) Get Projects related to a given username
abstract List	getAllDOIusers() Get all DOI users from data base
abstract List	getAllDOIUsersForProject(int suffix) Get Users from a given project.
abstract String	getDOIProjectName(int suffix) Get Project name from its suffix.
abstract List	getTokens() Get tokens
abstract boolean	isAdmin(String username) Check if user is an admin user

---

abstract boolean	isUserExist(String username) 　　　Check if user exists in the database
abstract void	removeDOIProject(int suffix) 　　　Remove a DOI project
abstract void	removeDOIProjectFromUser(String username, int suffix) 　　　Remove a DOI project from a user
abstract void	removeDOIUser(String username) 　　　Remove a DOI user
abstract void	renameDOIProject(int suffix, String newprojectname) 　　　Rename DOI project from its suffix.
abstract void	setAdmin(String username) 　　　Add admin right to a user
abstract void	unsetAdmin(String username) 　　　Remove admin right from a user

Methods

getAllDOIusers

```
public abstract List getAllDOIusers()
  throws DOIDbException
```

Get all DOI users from data base

Returns:
list of DOIUser

Throws:
DOIDbException - When an Database exception happens

getAllDOIProjects

```
public abstract List getAllDOIProjects()
  throws DOIDbException
```

Get all DOI projects from data base

Returns:
list of DOI projects

Throws:
DOIDbException - When an Database exception happens

getAllDOIProjectsForUser

```
public abstract List getAllDOIProjectsForUser(String username)
  throws DOIDbException
```

Get Projects related to a given username

Parameters:

(continued from last page)

username - username

Returns:
    List of projects

Throws:
    DOIDbException - When an Database exception happens

getAllDOIUsersForProject

```
public abstract List getAllDOIUsersForProject(int suffix)
  throws DOIDbException
```

Get Users from a given project.

Parameters:
    suffix - suffix

Returns:
    List of DOIUser

Throws:
    DOIDbException - When an Database exception happens

addDOIUser

```
public abstract void addDOIUser(String username,
        Boolean admin)
  throws DOIDbException
```

Add a DOI user

Parameters:
    username - username
    admin - True when the user is admin otherwise False

Throws:
    DOIDbException - When an Database exception happens

addDOIUser

```
public abstract void addDOIUser(String username,
        Boolean admin,
        String email)
  throws DOIDbException
```

Add a DOI user

Parameters:
    username - username
    admin - True when the user is admin otherwise False
    email - email

Throws:
    DOIDbException - When an Database exception happens

removeDOIUser

```
public abstract void removeDOIUser(String username)
  throws DOIDbException
```

Remove a DOI user

Parameters:
username - username

Throws:
DOIDbException - When an Database exception happens

removeDOIProject

```
public abstract void removeDOIProject(int suffix)
  throws DOIDbException
```

Remove a DOI project

Parameters:
suffix - suffix

Throws:
DOIDbException - When an Database exception happens

addDOIProject

```
public abstract void addDOIProject(int suffix,
        String projectname)
  throws DOIDbException
```

Add a DOI project

Parameters:
suffix - suffix
projectname - project name

Throws:
DOIDbException - When an Database exception happens

addDOIProjectToUser

```
public abstract void addDOIProjectToUser(String username,
        int suffix)
  throws DOIDbException
```

Assign a DOI project to a user

Parameters:
username - user name
suffix - suffix related to a project

Throws:
DOIDbException - When an Database exception happens

removeDOIProjectFromUser

```
public abstract void removeDOIProjectFromUser(String username,
            int suffix)
    throws DOIDbException
```

Remove a DOI project from a user

Parameters:
username - user name
suffix - suffix related to a project

Throws:
DOIDbException - When an Database exception happens

setAdmin

```
public abstract void setAdmin(String username)
    throws DOIDbException
```

Add admin right to a user

Parameters:
username - user name

Throws:
DOIDbException - When an Database exception happens

unsetAdmin

```
public abstract void unsetAdmin(String username)
    throws DOIDbException
```

Remove admin right from a user

Parameters:
username - user name

Throws:
DOIDbException - When an Database exception happens

isAdmin

```
public abstract boolean isAdmin(String username)
    throws DOIDbException
```

Check if user is an admin user

Parameters:
username - user name

Returns:
false if user is not admin or doesn't exist

Throws:
DOIDbException - When an Database exception happens

isUserExist

```
public abstract boolean isUserExist(String username)
  throws DOIDbException
```

> Check if user exists in the database

> **Parameters:**
>> username - user name

> **Returns:**
>> false if user does not exist

> **Throws:**
>> DOIDbException - When an Database exception happens

renameDOIProject

```
public abstract void renameDOIProject(int suffix,
        String newprojectname)
  throws DOIDbException
```

> Rename DOI project from its suffix.

> **Parameters:**
>> suffix - suffix
>> newprojectname - new project name

> **Throws:**
>> DOIDbException - When an Database exception happens

getDOIProjectName

```
public abstract String getDOIProjectName(int suffix)
  throws DOIDbException
```

> Get Project name from its suffix.

> **Parameters:**
>> suffix - suffix

> **Returns:**
>> project name

> **Throws:**
>> fr.cnes.doi.exception.DOIDbException - When an Database exception happens

addToken

```
public abstract void addToken(String token)
  throws DOIDbException
```

> Add token

> **Parameters:**
>> token - Adds a token to the database

> **Throws:**
>> fr.cnes.doi.exception.DOIDbException - When an Database exception happens

deleteToken

```
public abstract void deleteToken(String token)
   throws DOIDbException
```

Delete token

Parameters:
token - token to delete

Throws:
fr.cnes.doi.exception.DOIDbException - When an Database exception happens

getTokens

```
public abstract List getTokens()
   throws DOIDbException
```

Get tokens

Returns:
List of tokens

Throws:
fr.cnes.doi.exception.DOIDbException - When an Database exception happens

close

```
public abstract void close()
   throws DOIDbException
```

Close and release all the Data access connections.

Throws:
DOIDbException - When an error occurs

Package
fr.cnes.doi.resource

Provides base resources

fr.cnes.doi.resource
Class AbstractResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
```

Direct Known Subclasses:
BaseMdsResource, RedirectingResource, ManageSuperUserResource, TokenResource, ManageSuperUsersResource, SuffixProjectsDoisResource, AuthenticateResource, SuffixProjectsResource, ManageProjectsResource, ManageUsersResource, FooterIhmResource, ConfigIhmResource, BaseCitationResource

---

public abstract class **AbstractResource**
extends WadlServerResource

Abstract resource. Each resource must extend from this abstract class. This abstract class allows the WADL description.
See Also:
>   WADL
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	AbstractResource()

Method Summary

void	addRequestDocToMethod(MethodInfo info, List params) Adds Wadl description of the request to the method.
void	addRequestDocToMethod(MethodInfo info, List params, RepresentationInfo rep) Adds Wadl description of the request to the method.
void	addRequestDocToMethod(MethodInfo info, ParameterInfo param) Adds Wadl description of the request to a method.
void	addResponseDocToMethod(MethodInfo info, ResponseInfo response) Adds Wadl description of the response to a method.
ParameterInfo	createQueryParamDoc(String name, ParameterStyle style, String doc, boolean isRequired, String datatype) Creates a query parameter.
RepresentationInfo	createQueryRepresentationDoc(String identifier, org.restlet.data.MediaType mediaType, String doc, String xmlElement) Creates query representation.
ResponseInfo	createResponseDoc(org.restlet.data.Status status, String doc) Creates a textual explanation of the response for a given status.

ResponseInfo	**createResponseDoc**(org.restlet.data.Status status, String doc, RepresentationInfo representation)	
	Creates a textual explanation of the response for a given status.	
ResponseInfo	**createResponseDoc**(org.restlet.data.Status status, String doc, String refRepresentation)	
	Creates a textual explanation of the response for a given status.	
void	**doInit**()	
	Init	
RepresentationInfo	**htmlRepresentation**()	
	projects representation	
boolean	**isObjectExist**(Object obj)	
	Test if an object is null.	
boolean	**isObjectNotExist**(Object obj)	
	Test if an object is not null.	
boolean	**isValueExist**(org.restlet.data.Form form, String parameterName)	
	Tests if the form is not null and the parameter exists in the form.	
boolean	**isValueNotExist**(org.restlet.data.Form form, String parameterName)	
	The opposite of **isValueExist(Form, String)**	
RepresentationInfo	**stringRepresentation**()	
	projects representation	

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AbstractResource

public **AbstractResource**()

Methods

doInit

```
protected void doInit()
    throws org.restlet.resource.ResourceException
```

Init

Throws:
ResourceException - When an Exception happens

isValueExist

```
public boolean isValueExist(org.restlet.data.Form form,
        String parameterName)
```

Tests if the form is not null and the parameter exists in the form.

Parameters:
form - submitted form
parameterName - parameter name in the form

Returns:
True when the form is not null and the parameter exists in the form otherwise False

isValueNotExist

```
public boolean isValueNotExist(org.restlet.data.Form form,
          String parameterName)
```

The opposite of isValueExist(Form, String)

Parameters:
   `form` - submitted form
   `parameterName` - parameter name

Returns:
   False when the form is not null and the parameter exists in the form otherwise True

isObjectExist

```
public boolean isObjectExist(Object obj)
```

Test if an object is null.

Parameters:
   `obj` - object to test

Returns:
   True when the object is not null otherwise False

isObjectNotExist

```
public boolean isObjectNotExist(Object obj)
```

Test if an object is not null.

Parameters:
   `obj` - object to test

Returns:
   True when the object is null otherwise False

addRequestDocToMethod

```
protected void addRequestDocToMethod(MethodInfo info,
          ParameterInfo param)
```

Adds Wadl description of the request to a method.

Parameters:
   `info` - method description
   `param` - Request parameters

addRequestDocToMethod

```
protected void addRequestDocToMethod(MethodInfo info,
          List params)
```

Adds Wadl description of the request to the method.

Parameters:
   `info` - Method description
   `params` - Request parameters

addRequestDocToMethod

```
protected void addRequestDocToMethod(MethodInfo info,
        List params,
        RepresentationInfo rep)
```

Adds Wadl description of the request to the method.

Parameters:
>   `info` - Method description
>   `params` - Request parameters
>   `rep` - Representation entity of the request

addResponseDocToMethod

```
protected void addResponseDocToMethod(MethodInfo info,
        ResponseInfo response)
```

Adds Wadl description of the response to a method.

Parameters:
>   `info` - Method description
>   `response` - Response description

createResponseDoc

```
protected ResponseInfo createResponseDoc(org.restlet.data.Status status,
        String doc)
```

Creates a textual explanation of the response for a given status.

Parameters:
>   `status` - HTTP Status
>   `doc` - textual explanation

Returns:
>   Response Wadl description

createResponseDoc

```
protected ResponseInfo createResponseDoc(org.restlet.data.Status status,
        String doc,
        String refRepresentation)
```

Creates a textual explanation of the response for a given status.

Parameters:
>   `status` - HTTP status
>   `doc` - textual explanation
>   `refRepresentation` - reference to the representation of the response

Returns:
>   the response Wadl description

createResponseDoc

```
protected ResponseInfo createResponseDoc(org.restlet.data.Status status,
        String doc,
        RepresentationInfo representation)
```

Creates a textual explanation of the response for a given status.

Parameters:
status - HTTP status
doc - textual description
representation - Representation of the response

Returns:
the response Wadl description

createQueryParamDoc

```
protected ParameterInfo createQueryParamDoc(String name,
        ParameterStyle style,
        String doc,
        boolean isRequired,
        String datatype)
```

Creates a query parameter.

Parameters:
name - query parameter name
style - Style (header, template, ...)
doc - textual description
isRequired - optional or required
datatype - data type

Returns:
the query Wadl description

createQueryRepresentationDoc

```
protected RepresentationInfo createQueryRepresentationDoc(String identifier,
        org.restlet.data.MediaType mediaType,
        String doc,
        String xmlElement)
```

Creates query representation.

Parameters:
identifier - representation identifier
mediaType - media type
doc - textual description
xmlElement - XML element of the schema

Returns:
Wadl element for the representation

stringRepresentation

```
protected RepresentationInfo stringRepresentation()
```

projects representation

Returns:
Wadl representation for projects

htmlRepresentation

```
protected RepresentationInfo htmlRepresentation()
```

projects representation

Returns:
Wadl representation for projects

Package
fr.cnes.doi.resource.admin

Provides resources for the AdminApplication.

fr.cnes.doi.resource.admin
Class AuthenticateResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.AuthenticateResource
```

---

public class **AuthenticateResource**
extends AbstractResource

Test authentication.
Author:
 Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	AuthenticateResource()

Method Summary

org.restlet.representation.Representation	checkAuth()

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

AuthenticateResource

public **AuthenticateResource**()

Methods

checkAuth

public org.restlet.representation.Representation **checkAuth**()

fr.cnes.doi.resource.admin
Class ConfigIhmResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.ConfigIhmResource
```

public class **ConfigIhmResource**
extends [AbstractResource](#)

Retrieves configuration file.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[ConfigIhmResource](#)()

Method Summary

void	[describeGet](#)(MethodInfo info)
void	[doInit](#)() Init
org.restlet.represent ation.Representation	[getConfig](#)() Returns the configuration file.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe,
describe, describe, describe, describe, describe, describe, describeDelete,
describeGet, describeMethod, describeMethod, describeOptions, describeParameters,
describePatch, describePost, describePut, doInit, getDescription, getName,
getParameter, getParameters, getPreferredWadlVariant, getResourcePath,
getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing,
setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

ConfigIhmResource

public **ConfigIhmResource**()

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Init

getConfig

public org.restlet.representation.Representation **getConfig**()

Returns the configuration file.

Returns:
the configuration file

describeGet

```
protected void describeGet(MethodInfo info)
```

fr.cnes.doi.resource.admin
Class FooterIhmResource

```
java.lang.Object
    │
    +-org.restlet.resource.Resource
        │
        +-org.restlet.resource.ServerResource
            │
            +-org.restlet.ext.wadl.WadlServerResource
                │
                +-fr.cnes.doi.resource.AbstractResource
                    │
                    +-fr.cnes.doi.resource.admin.FooterIhmResource
```

public class **FooterIhmResource**
extends [AbstractResource](#)

Retrieves IHM footer.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[FooterIhmResource](#)()

Method Summary

void	[describeGet](#)(MethodInfo info)
void	[doInit](#)()
org.restlet.represent ation.Representation	[getFooter](#)() Returns the footer.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#), [addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#), [createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#), [isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

FooterIhmResource

public **FooterIhmResource**()

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Init

getFooter

public org.restlet.representation.Representation **getFooter**()

Returns the footer.

Returns:
the footer

describeGet

```
protected void describeGet(MethodInfo info)
```

fr.cnes.doi.resource.admin
Class ManageProjectsResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.ManageProjectsResource
```

public class **ManageProjectsResource**
extends [AbstractResource](#)

Provide a resource to delete and rename a project from database.

Field Summary

public static final	[PROJECT_NAME_PARAMETER](#) Parameter for the project name #PROJECT_NAME_PARAMETER. Value: **newProjectName**

Constructor Summary

public	[ManageProjectsResource](#)()

Method Summary

void	[deleteProject](#)() Delete the project from database.
void	[describeDelete](#)(MethodInfo info)
void	[describePost](#)(MethodInfo info)
void	[doInit](#)() Set-up method that can be overridden in order to initialize the state of the resource.
void	[renameProject](#)(org.restlet.data.Form mediaForm) Rename the project from the project id sent in url.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)
[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#), [addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#), [createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#), [isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

```
canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe,
describe, describe, describe, describe, describe, describe, describeDelete,
describeGet, describeMethod, describeMethod, describeOptions, describeParameters,
describePatch, describePost, describePut, doInit, getDescription, getName,
getParameter, getParameters, getPreferredWadlVariant, getResourcePath,
getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing,
setDescription, setName
```

Methods inherited from class `org.restlet.resource.ServerResource`

```
abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions
```

Methods inherited from class `org.restlet.resource.Resource`

```
doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

PROJECT_NAME_PARAMETER

```
public static final java.lang.String PROJECT_NAME_PARAMETER
```

> Parameter for the project name #PROJECT_NAME_PARAMETER. This parameter is send to create a new identifier for the project.
> Constant value: `newProjectName`

Constructors

ManageProjectsResource

public **ManageProjectsResource**()

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Set-up method that can be overridden in order to initialize the state of the resource.

Throws:
ResourceException - - if a problem happens

renameProject

public void **renameProject**(org.restlet.data.Form mediaForm)

Rename the project from the project id sent in url.

Parameters:
mediaForm - form

deleteProject

public void **deleteProject**()

Delete the project from database.

describePost

protected void **describePost**(MethodInfo info)

describeDelete

protected void **describeDelete**(MethodInfo info)

fr.cnes.doi.resource.admin
Class ManageSuperUserResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.ManageSuperUserResource
```

public class **ManageSuperUserResource**
extends AbstractResource

Provide a resource to ask if a user belong to the super user group and another one to remove a user from the super user group.

Constructor Summary

public	ManageSuperUserResource()

Method Summary

void	deleteSuperUser() Delete the SUPERUSER from database.
void	describeDelete(MethodInfo info)
void	describeGet(MethodInfo info)
void	doInit() Set-up method that can be overridden in order to initialize the state of the resource.
boolean	isUserExistAndAdmin() Returns null is user doesn't exist otherwise return true or false if user is admin or not.

Methods inherited from class fr.cnes.doi.resource.AbstractResource

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

```
abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions
```

Methods inherited from class `org.restlet.resource.Resource`

```
doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

ManageSuperUserResource

```
public ManageSuperUserResource()
```

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Set-up method that can be overridden in order to initialize the state of the resource.

Throws:

ResourceException - - if a problem happens

isUserExistAndAdmin

public boolean **isUserExistAndAdmin**()

> Returns null is user doesn't exist otherwise return true or false if user is admin or not.

> **Returns:**
> boolean.

deleteSuperUser

public void **deleteSuperUser**()

> Delete the SUPERUSER from database.

describeGet

protected void **describeGet**(MethodInfo info)

describeDelete

protected void **describeDelete**(MethodInfo info)

fr.cnes.doi.resource.admin
Class ManageSuperUsersResource

```
java.lang.Object
    │
    +-org.restlet.resource.Resource
        │
        +-org.restlet.resource.ServerResource
            │
            +-org.restlet.ext.wadl.WadlServerResource
                │
                +-fr.cnes.doi.resource.AbstractResource
                    │
                    +-fr.cnes.doi.resource.admin.ManageSuperUsersResource
```

public class **ManageSuperUsersResource**
extends [AbstractResource](#)

Provide a resource to get all super users and add a user to the super user group.

Field Summary

public static final	[SUPERUSER_NAME_PARAMETER](#) Parameter for the SUPERUSER name #SUPERUSER_NAME_PARAMETER. Value: **superUserName**

Constructor Summary

public	[ManageSuperUsersResource](#)()

Method Summary

void	[createSuperUser](#)(org.restlet.data.Form mediaForm) Rename the SUPERUSER from the SUPERUSER id sent in url.
void	[doInit](#)() Set-up method that can be overridden in order to initialize the state of the resource.
List	[getSuperUsersAsJson](#)() Returns the list of superusers as an array format.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

SUPERUSER_NAME_PARAMETER

`public static final java.lang.String `**`SUPERUSER_NAME_PARAMETER`**

Parameter for the SUPERUSER name #SUPERUSER_NAME_PARAMETER. This parameter is send to create a new identifier for the SUPERUSER.
Constant value: **`superUserName`**

Constructors

ManageSuperUsersResource

public **ManageSuperUsersResource**()

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

> Set-up method that can be overridden in order to initialize the state of the resource.

> **Throws:**
> > ResourceException - - if a problem happens

createSuperUser

public void **createSuperUser**(org.restlet.data.Form mediaForm)

> Rename the SUPERUSER from the SUPERUSER id sent in url.

> **Parameters:**
> > mediaForm - Data sent with request containing the user name to be super user.

getSuperUsersAsJson

public List **getSuperUsersAsJson**()

> Returns the list of superusers as an array format.

> **Returns:**
> > the list of superusers as an array format

fr.cnes.doi.resource.admin
Class ManageUsersResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.ManageUsersResource
```

public class **ManageUsersResource**
extends [AbstractResource](#)

Provide resources to get all users, bind or delete a user to/from a project.

Field Summary

public static final	[USER_NAME_PARAMETER](#) Parameter for the user name #USER_NAME_PARAMETER. Value: **user**

Constructor Summary

public	[ManageUsersResource](#)()

Method Summary

void	[addUserToProject](#)(org.restlet.data.Form mediaForm) Adds user to project
void	[deleteProject](#)() Delete the project
void	[doInit](#)() Set-up method that can be overridden in order to initialize the state of the resource.
List	[getUsers](#)() Get users.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#), [addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#), [createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#), [isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

```
canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe,
describe, describe, describe, describe, describe, describe, describeDelete,
describeGet, describeMethod, describeMethod, describeOptions, describeParameters,
describePatch, describePost, describePut, doInit, getDescription, getName,
getParameter, getParameters, getPreferredWadlVariant, getResourcePath,
getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing,
setDescription, setName
```

Methods inherited from class `org.restlet.resource.ServerResource`

```
abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions
```

Methods inherited from class `org.restlet.resource.Resource`

```
doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

USER_NAME_PARAMETER

```
public static final java.lang.String USER_NAME_PARAMETER
```

Parameter for the user name #USER_NAME_PARAMETER. This parameter is send to associate an user to a project.
Constant value: **user**

Constructors

ManageUsersResource

```
public ManageUsersResource()
```

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Set-up method that can be overridden in order to initialize the state of the resource.

Throws:
ResourceException - - if a problem happens

getUsers

```
public List getUsers()
```

Get users.

Returns:
users.

addUserToProject

```
public void addUserToProject(org.restlet.data.Form mediaForm)
```

Adds user to project

Parameters:
mediaForm - form

deleteProject

```
public void deleteProject()
```

Delete the project

fr.cnes.doi.resource.admin
Class RedirectingResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.RedirectingResource
```

public class **RedirectingResource**
extends AbstractResource

Redirecting to IHM
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	RedirectingResource()

Method Summary

org.restlet.represent ation.Representation	doGet()

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

RedirectingResource

public **RedirectingResource**()

Methods

doGet

public org.restlet.representation.Representation **doGet**()

fr.cnes.doi.resource.admin
Class SuffixProjectsDoisResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.SuffixProjectsDoisResource
```

---

public class **SuffixProjectsDoisResource**
extends [AbstractResource](#)

Provides a unique identifier to the project. This identifier is used as part of the DOI name.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[SuffixProjectsDoisResource](#)()

Method Summary

void	[describeGet](#)(MethodInfo info) Describes a GET method.
void	[doInit](#)() Set-up method that can be overridden in order to initialize the state of the resource.
List	[getProjectsNameAsJson](#)() Returns the list of dois from the project suffix sent in url.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#), [addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#), [createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#), [isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

```
abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions
```

Methods inherited from class `org.restlet.resource.Resource`

```
doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

SuffixProjectsDoisResource

public **SuffixProjectsDoisResource**()

Methods

doInit

protected void **doInit**()
  throws org.restlet.resource.ResourceException

> Set-up method that can be overridden in order to initialize the state of the resource. Init by getting the DOI name in the template URL.

> **Throws:**
>   ResourceException - - if a problem happens

getProjectsNameAsJson

`public List getProjectsNameAsJson()`

Returns the list of dois from the project suffix sent in url.

Returns:
the list of dois

describeGet

`protected void describeGet(MethodInfo info)`

Describes a GET method.

Parameters:
`info` - method information

getProjectsNameAsJson

`public List getProjectsNameAsJson()`

fr.cnes.doi.resource.admin
Class SuffixProjectsResource

```
java.lang.Object
    │
    +-org.restlet.resource.Resource
        │
        +-org.restlet.resource.ServerResource
            │
            +-org.restlet.ext.wadl.WadlServerResource
                │
                +-fr.cnes.doi.resource.AbstractResource
                    │
                    +-fr.cnes.doi.resource.admin.SuffixProjectsResource
```

public class **SuffixProjectsResource**
extends [AbstractResource](#)

Provides a unique identifier to the project. This identifier is used as part of the DOI name.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	NB_DIGITS	Number of digits (#NB_DIGITS) in which the suffix project is encoded. Value: **6**
public static final	PROJECT_NAME_PARAMETER	Parameter for the project name #PROJECT_NAME_PARAMETER. Value: **projectName**
public static final	USER_PARAMETER	Query parameter for user #USER_PARAMETER. Value: **user**

Constructor Summary

public	SuffixProjectsResource()

Method Summary

org.restlet.represent ation.Representation	createProject(org.restlet.data.Form mediaForm)	Creates a suffix projet based on the project name.
void	describeGet(MethodInfo info)	Describes a GET method.
void	describePost(MethodInfo info)	Describes a POST method.
void	doInit()	Set-up method that can be overridden in order to initialize the state of the resource.
Map	getProjectsNameAsJson()	Returns the list of projects as Json or xml format.

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

PROJECT_NAME_PARAMETER

`public static final java.lang.String **PROJECT_NAME_PARAMETER**`

Parameter for the project name #PROJECT_NAME_PARAMETER. This parameter is send to create an identifier for the project.
Constant value: **projectName**

NB_DIGITS

`public static final int **NB_DIGITS**`

Number of digits (#NB_DIGITS) in which the suffix project is encoded.
Constant value: **6**

USER_PARAMETER

`public static final java.lang.String **USER_PARAMETER**`

Query parameter for user #USER_PARAMETER.
Constant value: **user**

Constructors

SuffixProjectsResource

`public **SuffixProjectsResource**()`

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Set-up method that can be overridden in order to initialize the state of the resource.

Throws:

> `ResourceException` - - if a problem happens

getProjectsNameAsJson

`public Map **getProjectsNameAsJson**()`

Returns the list of projects as Json or xml format.

Returns:

> the list of projects as Json or xml format

createProject

```
public org.restlet.representation.Representation createProject(org.restlet.data.Form
mediaForm)
```

Creates a suffix projet based on the project name. The project name is passed as parameter(PROJECT_NAME_PARAMETER) in the mediaForm. When a project suffix is created, a role with the same name is also automatically created.

Parameters:
   `mediaForm` - submitted form

Returns:
   A text representation of the encoded project name

describeGet

`protected void` **`describeGet`**`(MethodInfo info)`

   Describes a GET method.

Parameters:
   `info` - method information

describePost

`protected void` **`describePost`**`(MethodInfo info)`

   Describes a POST method.

Parameters:
   `info` - method information

fr.cnes.doi.resource.admin
Class TokenResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.admin.TokenResource
```

public class **TokenResource**
extends [AbstractResource](#)

Provides a resource to create token and to decrypt token
Author:
  Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	AMOUNT_OF_TIME_PARAMETER Amount of time for which the token is not expirated. Value: **amountTime**
public static final	IDENTIFIER_PARAMETER User ID of the operator that creates the token. Value: **identifier**
public static final	PROJECT_ID_PARAMETER Token for a specific project. Value: **projectID**
public static final	UNIT_OF_TIME_PARAMETER Unit of time used to define the expiration time of the token. Value: **typeOfTime**

Constructor Summary

public	TokenResource()

Method Summary

String	createToken(org.restlet.data.Form infoForm) Creates and stores a token.
void	deleteToken() Deletes token.
void	describeGet(MethodInfo info) Describes GET method.

void	`describePost`(MethodInfo info) Describes POST method.
void	`doInit`() Set-up method that can be overridden in order to initialize the state of the resource
org.restlet.represent ation.Representation	`getTokenInformation`() Returns the information from the token encoded as JSon format.

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

`addRequestDocToMethod`, `addRequestDocToMethod`, `addRequestDocToMethod`, `addResponseDocToMethod`, `createQueryParamDoc`, `createQueryRepresentationDoc`, `createResponseDoc`, `createResponseDoc`, `createResponseDoc`, `doInit`, `htmlRepresentation`, `isObjectExist`, `isObjectNotExist`, `isValueExist`, `isValueNotExist`, `stringRepresentation`

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

`canDescribe`, `createHtmlRepresentation`, `createWadlRepresentation`, `describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `describeDelete`, `describeGet`, `describeMethod`, `describeMethod`, `describeOptions`, `describeParameters`, `describePatch`, `describePost`, `describePut`, `doInit`, `getDescription`, `getName`, `getParameter`, `getParameters`, `getPreferredWadlVariant`, `getResourcePath`, `getResourcesBase`, `getWadlVariants`, `isAutoDescribing`, `options`, `setAutoDescribing`, `setDescription`, `setName`

Methods inherited from class `org.restlet.resource.ServerResource`

`abort`, `commit`, `delete`, `delete`, `describeVariants`, `doCatch`, `doConditionalHandle`, `doError`, `doHandle`, `doHandle`, `doNegotiatedHandle`, `get`, `get`, `getAttribute`, `getDescription`, `getInfo`, `getInfo`, `getName`, `getOnSent`, `getPreferredVariant`, `getRole`, `getVariants`, `getVariants`, `handle`, `hasAnnotations`, `head`, `head`, `isAnnotated`, `isAutoCommitting`, `isCommitted`, `isConditional`, `isExisting`, `isInRole`, `isNegotiated`, `options`, `options`, `patch`, `patch`, `post`, `post`, `put`, `put`, `redirectPermanent`, `redirectPermanent`, `redirectSeeOther`, `redirectSeeOther`, `redirectTemporary`, `redirectTemporary`, `setAllowedMethods`, `setAnnotated`, `setAttribute`, `setAutoCommitting`, `setChallengeRequests`, `setCommitted`, `setConditional`, `setCookieSettings`, `setDescription`, `setDimensions`, `setExisting`, `setLocationRef`, `setLocationRef`, `setName`, `setNegotiated`, `setOnSent`, `setProxyChallengeRequests`, `setServerInfo`, `setStatus`, `setStatus`, `setStatus`, `setStatus`, `updateAllowedMethods`, `updateDimensions`

Methods inherited from class `org.restlet.resource.Resource`

`doCatch`, `doError`, `doError`, `doInit`, `doRelease`, `getAllowedMethods`, `getApplication`, `getAttribute`, `getChallengeRequests`, `getChallengeResponse`, `getClientInfo`, `getConditions`, `getConnegService`, `getContext`, `getConverterService`, `getCookies`, `getCookieSettings`, `getDimensions`, `getHostRef`, `getLocationRef`, `getLogger`, `getMatrix`, `getMatrixValue`, `getMaxForwards`, `getMetadataService`, `getMethod`, `getOriginalRef`, `getProtocol`, `getProxyChallengeRequests`, `getProxyChallengeResponse`, `getQuery`, `getQueryValue`, `getRanges`, `getReference`, `getReferrerRef`, `getRequest`, `getRequestAttributes`, `getRequestCacheDirectives`, `getRequestEntity`, `getResponse`, `getResponseAttributes`, `getResponseCacheDirectives`, `getResponseEntity`, `getRootRef`, `getServerInfo`, `getStatus`, `getStatusService`, `handle`, `init`, `isConfidential`, `isLoggable`, `release`, `setApplication`, `setAttribute`, `setQueryValue`, `setRequest`, `setResponse`, `toBoolean`, `toByte`, `toDouble`, `toFloat`, `toInteger`, `toLong`, `toObject`, `toRepresentation`, `toRepresentation`, `toRepresentation`, `toShort`, `toString`

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

IDENTIFIER_PARAMETER

public static final java.lang.String **IDENTIFIER_PARAMETER**

> User ID of the operator that creates the token.
> Constant value: **identifier**

PROJECT_ID_PARAMETER

public static final java.lang.String **PROJECT_ID_PARAMETER**

> Token for a specific project.
> Constant value: **projectID**

UNIT_OF_TIME_PARAMETER

public static final java.lang.String **UNIT_OF_TIME_PARAMETER**

> Unit of time used to define the expiration time of the token.
> Constant value: **typeOfTime**

AMOUNT_OF_TIME_PARAMETER

public static final java.lang.String **AMOUNT_OF_TIME_PARAMETER**

> Amount of time for which the token is not expired.
> Constant value: **amountTime**

Constructors

TokenResource

public **TokenResource**()

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

> Set-up method that can be overridden in order to initialize the state of the resource

Throws:
> ResourceException - - if a problem happens

createToken

public String **createToken**(org.restlet.data.Form infoForm)

Creates and stores a token. The token creation is based on several actions :

- creates the TokenSecurity.generate(String, int, TokenSecurity.TimeUnit, int)
- stores the token in token database

Parameters:
infoForm - submitted information when requesting the token creation

Returns:
the token

getTokenInformation

public org.restlet.representation.Representation **getTokenInformation**()

Returns the information from the token encoded as JSon format.

Returns:
the included information in the token

deleteToken

public void **deleteToken**()

Deletes token.

describeGet

protected void **describeGet**(MethodInfo info)

Describes GET method.

Parameters:
info - method info

describePost

protected void **describePost**(MethodInfo info)

Describes POST method.

Parameters:
info - method info

Package
fr.cnes.doi.resource.citation

Provides resources for cross cite application. This package contains :

- The `resource` to get the list of possible languages
- The `resource` to get the list of possible styles
- The `resource` to get the citation

The Citation Formatter takes the metadata description of a DOI and uses the information to build a citation following more than

5,000 citation styles made available by the citationstyles.org project.

fr.cnes.doi.resource.citation
Class BaseCitationResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.citation.BaseCitationResource
```

Direct Known Subclasses:
[LanguageCitationResource](), [FormatCitationResource](), [StyleCitationResource]()

---

public class **BaseCitationResource**
extends [AbstractResource]()

Base resource for CrossCite application.
Author:
  Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	DOI_PARAMETER	Parameter providing the digital object identifier #DOI_PARAMETER. Value: **doi**
public static final	LANG_PARAMETER	Language parameter to format the citation #LANG_PARAMETER. Value: **lang**
protected volatile	LOG	Logger.
public static final	STYLE_PARAMETER	Style parameter to format the citation #STYLE_PARAMETER. Value: **style**

Constructor Summary

public	BaseCitationResource()

Method Summary

void	doInit() Init.
DoiCrossCiteApplication	getApp() Returns CrossCiteApplication.

RepresentationInfo	listRepresentation(String title, org.restlet.data.MediaType media, String content)
	List representation.

Methods inherited from class fr.cnes.doi.resource.AbstractResource

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class org.restlet.resource.Resource

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

DOI_PARAMETER

`public static final java.lang.String **DOI_PARAMETER**`

Parameter providing the digital object identifier #DOI_PARAMETER.
Constant value: **`doi`**

LANG_PARAMETER

`public static final java.lang.String **LANG_PARAMETER**`

Language parameter to format the citation #LANG_PARAMETER.
Constant value: **`lang`**

STYLE_PARAMETER

`public static final java.lang.String **STYLE_PARAMETER**`

Style parameter to format the citation #STYLE_PARAMETER.
Constant value: **`style`**

LOG

`protected volatile org.apache.logging.log4j.Logger **LOG**`

Logger.

Constructors

BaseCitationResource

`public **BaseCitationResource**()`

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Init.

Throws:
   `ResourceException` - - if a problem happens

listRepresentation

```
protected RepresentationInfo listRepresentation(String title,
        org.restlet.data.MediaType media,
        String content)
```

List representation.

Parameters:
> `title` - Title of the representation
> `media` - Media type of the response
> `content` - Explanation of the representation

Returns:
> the Wadl representation of this representation

getApp

public [DoiCrossCiteApplication](#) **getApp**()

Returns CrossCiteApplication.

Returns:
> the app

fr.cnes.doi.resource.citation
Class FormatCitationResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.citation.BaseCitationResource
                        |
                        +-fr.cnes.doi.resource.citation.FormatCitationResource
```

public class **FormatCitationResource**
extends BaseCitationResource

Formats a citation. CrossRef, DataCite and mEDRA support formatted citations via the text/bibliography content type. These are the output of the Citation Style Language processor, citeproc-js. The content type can take two additional parameters to customise its response format.

"\"style\"" can be chosen from the list of style names found in the CSL style repository. Many styles are supported, including common styles such as apa and harvard3

Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.resource.citation.BaseCitationResource`

DOI_PARAMETER, LANG_PARAMETER, LOG, STYLE_PARAMETER

Constructor Summary

public	FormatCitationResource()

Method Summary

void	describeGet(MethodInfo info) Describes the Get Method.
void	doInit() Init by getting doi, lang and style values.
String	getFormat() Returns the formatted citation.

Methods inherited from class `fr.cnes.doi.resource.citation.BaseCitationResource`

doInit, getApp, listRepresentation

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

FormatCitationResource

```
public FormatCitationResource()
```

Methods

doInit

```
protected void doInit()
  throws org.restlet.resource.ResourceException
```

Init by getting doi, lang and style values.

Throws:
    ResourceException - - if a problem happens

getFormat

```
public String getFormat()
  throws org.restlet.resource.ResourceException
```

Returns the formatted citation.

Returns:
    the formatted citation

Throws:
    ResourceException - - if a problem happens when requesting Cross Cite or if
    BaseCitationResource.DOI_PARAMETER and BaseCitationResource.LANG_PARAMETER and
    BaseCitationResource.STYLE_PARAMETER are not set

describeGet

```
protected final void describeGet(MethodInfo info)
```

Describes the Get Method.

Parameters:
    info - Wadl description

fr.cnes.doi.resource.citation
Class LanguageCitationResource

```
java.lang.Object
    │
    +-org.restlet.resource.Resource
        │
        +-org.restlet.resource.ServerResource
            │
            +-org.restlet.ext.wadl.WadlServerResource
                │
                +-fr.cnes.doi.resource.AbstractResource
                    │
                    +-fr.cnes.doi.resource.citation.BaseCitationResource
                        │
                        +-fr.cnes.doi.resource.citation.LanguageCitationResource
```

public class **LanguageCitationResource**
extends BaseCitationResource

The supported languages for citation.
Author:
        Jean-christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.resource.citation.BaseCitationResource`

 DOI_PARAMETER, LANG_PARAMETER, LOG, STYLE_PARAMETER

Constructor Summary

public	LanguageCitationResource()

Method Summary

void	describeGet(MethodInfo info) Describes the Get Method.
void	doInit() Init.
List	getLanguages() Returns the languages as JSON to format the citation.

Methods inherited from class `fr.cnes.doi.resource.citation.BaseCitationResource`

 doInit, getApp, listRepresentation

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

 addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod,
addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc,
createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation,
isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

---

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe,
describe, describe, describe, describe, describe, describe, describeDelete,
describeGet, describeMethod, describeMethod, describeOptions, describeParameters,
describePatch, describePost, describePut, doInit, getDescription, getName,
getParameter, getParameters, getPreferredWadlVariant, getResourcePath,
getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing,
setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle,
doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute,
getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole,
getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated,
isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated,
options, options, patch, patch, post, post, put, put, redirectPermanent,
redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary,
redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting,
setChallengeRequests, setCommitted, setConditional, setCookieSettings,
setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName,
setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus,
setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication,
getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo,
getConditions, getConnegService, getContext, getConverterService, getCookies,
getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix,
getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef,
getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery,
getQueryValue, getRanges, getReference, getReferrerRef, getRequest,
getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse,
getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef,
getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable,
release, setApplication, setAttribute, setQueryValue, setRequest, setResponse,
toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation,
toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

LanguageCitationResource

public **LanguageCitationResource**()

Methods

doInit

```
protected void doInit()
   throws org.restlet.resource.ResourceException
```

Init.

Throws:
ResourceException - - if a problem happens

getLanguages

```
public List getLanguages()
   throws org.restlet.resource.ResourceException
```

Returns the languages as JSON to format the citation.

Returns:
the languages

Throws:
ResourceException - - Will thrown an Exception when a problem happens during the request to Cross Cite

describeGet

```
protected final void describeGet(MethodInfo info)
```

Describes the Get Method.

Parameters:
info - Wadl description

fr.cnes.doi.resource.citation
Class StyleCitationResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.citation.BaseCitationResource
                        |
                        +-fr.cnes.doi.resource.citation.StyleCitationResource
```

---

public class **StyleCitationResource**
extends BaseCitationResource

The supported styles for citation.
Author:
      Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.resource.citation.BaseCitationResource`

DOI_PARAMETER, LANG_PARAMETER, LOG, STYLE_PARAMETER

Constructor Summary

public	StyleCitationResource()

Method Summary

void	describeGet(MethodInfo info) Describes the Get Method.
void	doInit() Init.
List	getStyles() Returns the styles as JSON array for a citation.

Methods inherited from class `fr.cnes.doi.resource.citation.BaseCitationResource`

doInit, getApp, listRepresentation

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

---

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

StyleCitationResource

public **StyleCitationResource**()

Methods

doInit

```
protected void doInit()
   throws org.restlet.resource.ResourceException
```

Init.

Throws:
ResourceException - - if a problem happens

getStyles

```
public List getStyles()
   throws org.restlet.resource.ResourceException
```

Returns the styles as JSON array for a citation.

Returns:
the possibles styles for a citation

Throws:
ResourceException - - Will thrown an Exception when a problem happens during the request to Cross Cite

describeGet

```
protected final void describeGet(MethodInfo info)
```

Describes the Get Method.

Parameters:
info - Wadl description

Package
fr.cnes.doi.resource.mds

Provides resources for Meta Data Store application. The `DoiMdsApplication` is the main DOI `application` that brings together a set of resources handling the life of DOIs.

An application is instantiated only once when the server starts. On the contrary a resource is instantiated at each call. The `DoiMdsApplication` routes the different resources according to an URI.

- the `DoisResource` is routed by the URI fr.cnes.doi.application.DoiMdsApplication#DOI_URI
- the `DoiResource` is routed by the URI fr.cnes.doi.application.DoiMdsApplication#DOI_URI fr.cnes.doi.application.DoiMdsApplication#DOI_NAME_URI
- the `MetadatasResource` is routed by the URI fr.cnes.doi.application.DoiMdsApplication#METADATAS_URI
- the `MetadataResource` is routed by the URI fr.cnes.doi.application.DoiMdsApplication#METADATAS_URI fr.cnes.doi.application.DoiMdsApplication#DOI_NAME_URI
- the `MediaResource` is routed by the URI fr.cnes.doi.application.DoiMdsApplication#MEDIA_URI fr.cnes.doi.application.DoiMdsApplication#DOI_NAME_URI

Some of the above resources are protected by several mechanism. This mechanism is defined as a pipeline:

- Request: --> `Basic auth`(optional) -->`Token auth` (optional) -->`Method auth` -->`router`
- Response: <-- `SecurityPostProcessing` <---

The `clientMDS` implements the call to [DataCite](). This clients supports the proxy by the use of `HttpDOIClientHelper` plugin.

This plugin is registered by default when the method `BaseClient.getClient()` is used. The proxy parameters are automatically set from the config.properties by the use of `ProxySettings`

How to create a DOI

Here are the different steps to create a DOI:

- 1. Create a project on the server by using the `AdminApplication` through the resource `SuffixProjectsResource.createProject(Form)`. The response at this resource is an identifier, which is a part of the DOI suffix. This suffix guarantees the uniqueness of the DOI within the institution at condition that the project defines an identifier for each data. This data identifier will be part of the DOI suffix. Thus, the new DOI suffix has the following syntax **projectIdentifier/dataIdentifier**
- 2 - Create the DOI metadata according to the fr.cnes.doi.client.ClientMDS#SCHEMA_DATACITE schema.
- 3 - Upload the DOI metadata by using the `DoiMdsApplication` application through the `MetadatasResource`
- 4 - Upload the landing page URL using `DoiMdsApplication` application through the `DoisResource`

As below, an example of a code to create a DOI.

```
      // 1 - Upload the metadata
      // ------------------

      // Prepare the request
      ClientResource client = new ClientResource("http://localhost:" + port +
METADATA_SERVICE);
      // Set the login/pwd for basic authentication
      client.setChallengeResponse(
          new ChallengeResponse(ChallengeScheme.HTTP_BASIC, "malapert", "pwd")
      );
      // Set the project identifier (which is a part of the DOI) for authorisation
      reqAttribs = client.getRequestAttributes();
      headers = (Series) reqAttribs.get(RESTLET_HTTP_HEADERS);
      if (headers == null) {
          headers = new Series<>(Header.class);
          reqAttribs.put(RESTLET_HTTP_HEADERS, headers);
      }
      headers.add(UtilsHeader.SELECTED_ROLE_PARAMETER, "828606");
      // Request the metadata service
      try {
          Representation rep = client.post(
              new StringRepresentation(this.doiMetadata, MediaType.APPLICATION_XML)
          );
      } catch (ResourceException ex) {
      } finally {
          client.release();
      }

      // 2 - now we need to upload the landing page URL
      //------------------------------------------------

      // Create the first input parameter : DOI
      Form doiForm = new Form();
      doiForm.add(
          new Parameter(
              DoisResource.DOI_PARAMETER,
              "10.5072/828606/8c3e91ad45ca855b477126bc073ae44b"
          )
      );
      // Create the second input parameter : landing page
      doiForm.add(new Parameter(DoisResource.URL_PARAMETER, "http://www.cnes.fr"));

      // Prepare the query
      String port = DoiSettings.getInstance().getString(Consts.SERVER_HTTP_PORT);
      client = new ClientResource("http://localhost:" + port + DOIS_SERVICE);
      // Set the login/password
      client.setChallengeResponse(
          new ChallengeResponse(
              ChallengeScheme.HTTP_BASIC,
              "malapert",
```

```
            "pwd"
        )
);
// Define the role based on the project identifier
final String RESTLET_HTTP_HEADERS = "org.restlet.http.headers";
Map<string> reqAttribs = client.getRequestAttributes();
Series headers = (Series) reqAttribs.get(RESTLET_HTTP_HEADERS);
if (headers == null) {
    headers = new Series<>(Header.class);
    reqAttribs.put(RESTLET_HTTP_HEADERS, headers);
}
headers.add(UtilsHeader.SELECTED_ROLE_PARAMETER, "828606");


// Make the request
try {
    Representation rep = client.post(doiForm);
} catch (ResourceException ex) {
} finally {
    client.release();
}
```

fr.cnes.doi.resource.mds
Class BaseMdsResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.mds.BaseMdsResource
```

Direct Known Subclasses:
    DoisResource, MediaResource, DoiResource, MetadataResource, MetadatasResource

---

public class **BaseMdsResource**
extends AbstractResource

Base resource for the different resources.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	DOI_PARAMETER	The parameter that describes the DOI name #DOI_PARAMETER. Value: **doi**
protected volatile	LOG	Logger.
public static final	URL_PARAMETER	The parameter that describes the landing page related to the DOI #URL_PARAMETER. Value: **url**

Constructor Summary

public	BaseMdsResource()

Method Summary

void	checkPermission(String doiName, String selectedRole)	Checks permissions to access according to the role of the user and the DOI name.
void	describeDelete(MethodInfo info)	Describes WADL representation for checkPermission(String, String) method.
void	describePost(MethodInfo info)	Describes WADL representation for checkPermission(String, String) method.
void	doInit()	Init.

RepresentationInfo	explainRepresentation() Body representation.
String	extractSelectedRoleFromRequestIfExists() Extract *selectedRole* from HTTP header.
String	getAttributePath(String basePath) Retrieves path by cleaning query parameters.
DoiMdsApplication	getDoiApp() Returns the Mds application.

Methods inherited from class fr.cnes.doi.resource.AbstractResource

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class org.restlet.resource.Resource

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

DOI_PARAMETER

public static final java.lang.String **DOI_PARAMETER**

> The parameter that describes the DOI name #DOI_PARAMETER.
> Constant value: **doi**

URL_PARAMETER

public static final java.lang.String **URL_PARAMETER**

> The parameter that describes the landing page related to the DOI #URL_PARAMETER.
> Constant value: **url**

LOG

protected volatile org.apache.logging.log4j.Logger **LOG**

> Logger.

Constructors

BaseMdsResource

public **BaseMdsResource**()

Methods

doInit

```
protected void doInit()
  throws DoiServerException
```

Init.

Throws:
> `DoiServerException` - - if a problem happens

checkPermission

```
protected void checkPermission(String doiName,
          String selectedRole)
  throws DoiServerException
```

Checks permissions to access according to the role of the user and the DOI name. The authorization in DOI server is based on **role**. Each projectSuffix is

- a **role**
- related to a projectName

When the DOI name does not start with *prefixDOI/role*, an exception is send.

Parameters:
> `doiName` - DOI name
> `selectedRole` - Selected role

Throws:
> `DoiServerException` -

> - `DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE`
> - `DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE`
> - `DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION`
> - `DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT`

See Also:
> `Creates a suffixProject for a given project name`

extractSelectedRoleFromRequestIfExists

```
public String extractSelectedRoleFromRequestIfExists()
```

Extract *selectedRole* from HTTP header.

Returns:
> the selected role or an empty string when there is no selected role

explainRepresentation

```
protected RepresentationInfo explainRepresentation()
```

Body representation.

Returns:
> Wadl description for a body representation

describeDelete

```
protected void describeDelete(MethodInfo info)
```

Describes WADL representation for `checkPermission(String, String)` method. The different representations are the followings:

- `DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE`
- `DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE`
- `DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION`
- `DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT`

Parameters:
    `info` - Method information

---

describePost

`protected void` **`describePost`**`(MethodInfo info)`

Describes WADL representation for `checkPermission(String, String)` method. The different representations are the followings:

- `DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE`
- `DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE`
- `DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION`
- `DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT`

Parameters:
    `info` - Method information

---

getAttributePath

`public String` **`getAttributePath`**`(String basePath)`

Retrieves path by cleaning query parameters.

Parameters:
    `basePath` - base path to remove

Returns:
    the path value

---

getDoiApp

`public DoiMdsApplication` **`getDoiApp`**`()`

Returns the Mds application.

Returns:
    the doiApp

fr.cnes.doi.resource.mds
Class DoiResource

```
java.lang.Object
    │
    +-org.restlet.resource.Resource
        │
        +-org.restlet.resource.ServerResource
            │
            +-org.restlet.ext.wadl.WadlServerResource
                │
                +-fr.cnes.doi.resource.AbstractResource
                    │
                    +-fr.cnes.doi.resource.mds.BaseMdsResource
                        │
                        +-fr.cnes.doi.resource.mds.DoiResource
```

public class **DoiResource**
extends [BaseMdsResource](#)

DOI resource to retrieve the landing page for a given DOI.
Author:
        Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	GET_DOI Function of this resource #GET_DOI. Value: **Get DOI**

Fields inherited from class `fr.cnes.doi.resource.mds.BaseMdsResource`	
DOI_PARAMETER, LOG, URL_PARAMETER	

Constructor Summary

public	DoiResource()

Method Summary

void	describeGet(MethodInfo info) Describes the Get Method.
void	doInit() Init by getting the DOI name in the template URL.
org.restlet.represent ation.Representation	getDoi() Returns the URL associated to a given DOI or no content.

Methods inherited from class `fr.cnes.doi.resource.mds.BaseMdsResource`	
checkPermission, describeDelete, describePost, doInit, explainRepresentation, extractSelectedRoleFromRequestIfExists, getAttributePath, getDoiApp	

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`	

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

GET_DOI

`public static final java.lang.String `**`GET_DOI`**

> Function of this resource #GET_DOI.
> Constant value: **`Get DOI`**

Constructors

DoiResource

`public `**`DoiResource`**`()`

Methods

doInit

```
protected void doInit()
  throws DoiServerException
```

> Init by getting the DOI name in the `template URL`.
>
> **Throws:**
> > `DoiServerException` - - if a problem happens

getDoi

```
public org.restlet.representation.Representation getDoi()
  throws DoiServerException
```

> Returns the URL associated to a given DOI or no content. When the status is 200, the URL associated to a DOI is returnes. When the status is 204, the DOI is known to MDS, but is not minted (or not resolvable e.g. due to handle's latency)
>
> **Returns:**
> > an URL or no content (DOI is known to MDS, but is not minted (or not resolvable e.g. due to handle's latency))
>
> **Throws:**
> > `DoiServerException` - - if the response is not a success
> >
> > - `ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND`
> > - `DoiMdsApplication.API_MDS.DATACITE_PROBLEM`
> > - `DoiMdsApplication.API_MDS.DOI_VALIDATION`

describeGet

`protected final void `**`describeGet`**`(MethodInfo info)`

Describes the Get Method. The different representations are the followings:

- `ClientMDS.DATACITE_API_RESPONSE.SUCCESS`
- `ClientMDS.DATACITE_API_RESPONSE.SUCCESS_NO_CONTENT`
- `DoiMdsApplication.API_MDS.DOI_VALIDATION`
- `ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND`
- `DoiMdsApplication.API_MDS.DATACITE_PROBLEM`

Parameters:
    `info` - Wadl description

- `ClientMDS.DATACITE_API_RESPONSE.SUCCESS`
- `ClientMDS.DATACITE_API_RESPONSE.SUCCESS_NO_CONTENT`
- `DoiMdsApplication.API_MDS.DOI_VALIDATION`

fr.cnes.doi.resource.mds
Class DoisResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.mds.BaseMdsResource
                        |
                        +-fr.cnes.doi.resource.mds.DoisResource
```

---

public class **DoisResource**
extends BaseMdsResource

Resource to handle a collection of DOI.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	CREATE_DOI	
		Function of this resource #CREATE_DOI.
		Value: **Create a DOI**
public static final	LIST_ALL_DOIS	
		Function of this resource #LIST_ALL_DOIS.
		Value: **List all DOIs**

Fields inherited from class `fr.cnes.doi.resource.mds.BaseMdsResource`

DOI_PARAMETER, LOG, URL_PARAMETER

Constructor Summary

public	DoisResource()

Method Summary

String	createDoi(org.restlet.data.Form doiForm)	
		Creates a new DOI based on the doi and url parameters The DOI name is built following this syntax: *CNES_prefix*/*project_provided_the_DOI_server*/project_suffix.
void	describeGet(MethodInfo info)	
		Describes the GET method.
void	describePost(MethodInfo info)	
		Describes the POST method.
void	doInit()	
		Init.

List	getDois()
	Returns the collection of DOI.

Methods inherited from class `fr.cnes.doi.resource.mds.BaseMdsResource`

checkPermission, describeDelete, describePost, doInit, explainRepresentation, extractSelectedRoleFromRequestIfExists, getAttributePath, getDoiApp

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

LIST_ALL_DOIS

public static final java.lang.String **LIST_ALL_DOIS**

Function of this resource #LIST_ALL_DOIS.
Constant value: **List all DOIs**

CREATE_DOI

public static final java.lang.String **CREATE_DOI**

Function of this resource #CREATE_DOI.
Constant value: **Create a DOI**

Constructors

DoisResource

public **DoisResource**()

Methods

doInit

protected void **doInit**()
    throws [DoiServerException](#)

Init.

Throws:
    [DoiServerException](#) - - if a problem happens

getDois

public List **getDois**()
    throws [DoiServerException](#)

Returns the collection of DOI. This request returns a list of all DOIs for the requesting datacentre. Status 200 is returned when operation is successful.

Returns:
    the list of DOI

Throws:
    [DoiServerException](#) - 204 No Content - no DOIs founds

createDoi

```
public String createDoi(org.restlet.data.Form doiForm)
  throws DoiServerException
```

Creates a new DOI based on the doi and url parameters The DOI name is built following this syntax: *CNES_prefix*/*project_provided_the_DOI_server*/project_suffix.

The client provides :

- *doi* : the project suffix, which is an unique identifier within the project.
- *url* : the URL of the landing page.

Note 1 : the landing page should be accessible from www **Note 2** : Metadata must be uploaded first

Will mint new DOI if specified DOI doesn't exist. This method will attempt to update URL if you specify existing DOI. Standard domains and quota restrictions check will be performed. A Datacentre's doiQuotaUsed will be increased by 1. A new record in Datasets will be created by returning a 201 status for operation successful.

Parameters:
doiForm - doi and url

Returns:
short explanation of status code e.g. CREATED, HANDLE_ALREADY_EXISTS etc

Throws:
DoiServerException - - if the response is not a success

- ClientMDS.DATACITE_API_RESPONSE.PROCESS_ERROR
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM
- DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION
- DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT

describeGet

```
protected final void describeGet(MethodInfo info)
```

Describes the GET method. The different representations are the followings:

- ClientMDS.DATACITE_API_RESPONSE.SUCCESS
- ClientMDS.DATACITE_API_RESPONSE.SUCCESS_NO_CONTENT
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM

Parameters:
info - Wadl description

describePost

```
protected final void describePost(MethodInfo info)
```

Describes the POST method. The different representations are the followings:

- ClientMDS.DATACITE_API_RESPONSE.SUCESS_CREATED
- DoiMdsApplication.API_MDS.LANGING_PAGE_VALIDATION
- ClientMDS.DATACITE_API_RESPONSE.PROCESS_ERROR
- DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION
- DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM

Parameters:
    info - Wadl description

- ClientMDS.DATACITE_API_RESPONSE.SUCESS_CREATED
- DoiMdsApplication.API_MDS.LANGING_PAGE_VALIDATION

fr.cnes.doi.resource.mds
Class MediaResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.mds.BaseMdsResource
                        |
                        +-fr.cnes.doi.resource.mds.MediaResource
```

public class **MediaResource**
extends BaseMdsResource

Resource to handle the Media.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class `fr.cnes.doi.resource.mds.BaseMdsResource`

DOI_PARAMETER, LOG, URL_PARAMETER

Constructor Summary

public	MediaResource()

Method Summary

org.restlet.represent ation.Representation	createMedia(org.restlet.data.Form mediaForm) Creates a media related to an URL for a given DOI.
void	describeGet(MethodInfo info) Describes the GET method.
void	describePost(MethodInfo info) Describes the POST method.
void	doInit() Init by getting the media name.
org.restlet.represent ation.Representation	getMedias() Returns the media related to a DOI.

Methods inherited from class `fr.cnes.doi.resource.mds.BaseMdsResource`

checkPermission, describeDelete, describePost, doInit, explainRepresentation,
extractSelectedRoleFromRequestIfExists, getAttributePath, getDoiApp

Methods inherited from class `fr.cnes.doi.resource.AbstractResource`

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

MediaResource

```
public MediaResource()
```

Methods

doInit

```
protected void doInit()
    throws DoiServerException
```

Init by getting the media name.

Throws:
> DoiServerException - - if a problem happens

getMedias

```
public org.restlet.representation.Representation getMedias()
    throws DoiServerException
```

Returns the media related to a DOI. This request returns list of pairs of media type and URLs associated with a given DOI when 200 status is returned (operation successful).

Returns:
> the media related to a DOI

Throws:
> DoiServerException - - if the response is not a success

> - ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND
> - DoiMdsApplication.API_MDS.DATACITE_PROBLEM

createMedia

```
public org.restlet.representation.Representation createMedia(org.restlet.data.Form
mediaForm)
    throws DoiServerException
```

Creates a media related to an URL for a given DOI. Will add/update media type/urls pairs to a DOI. Standard domain restrictions check will be performed. 200 status is returned when the operation is successful.

Parameters:
> mediaForm - Form

Returns:
> short explanation of status code

Throws:

DoiServerException - - if the response is not a success :

- ClientMDS.DATACITE_API_RESPONSE.BAD_REQUEST
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM
- DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION
- DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT

describeGet

```
protected final void describeGet(MethodInfo info)
```

Describes the GET method. The different representations are the followings:

- ClientMDS.DATACITE_API_RESPONSE.SUCCESS
- ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM

Parameters:
info - Wadl description for a GET method

describePost

```
protected final void describePost(MethodInfo info)
```

Describes the POST method. The different representations are the followings:

- ClientMDS.DATACITE_API_RESPONSE.SUCCESS
- DoiMdsApplication.API_MDS.MEDIA_VALIDATION
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM
- DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION
- DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT

Parameters:
info - Wadl description for describing POST method

fr.cnes.doi.resource.mds
Class MetadataResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.mds.BaseMdsResource
                        |
                        +-fr.cnes.doi.resource.mds.MetadataResource
```

public class **MetadataResource**
extends [BaseMdsResource](#)

Resources to handle a metadata.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	DELETE_METADATA Function of this resource #DELETE_METADATA. Value: **Delete a Metadata**
public static final	GET_METADATA Function of this resource #GET_METADATA. Value: **Get a Metadata**

Fields inherited from class `fr.cnes.doi.resource.mds.BaseMdsResource`

DOI_PARAMETER, LOG, URL_PARAMETER

Constructor Summary

public	MetadataResource()

Method Summary

org.restlet.represent ation.Representation	deleteMetadata() Deletes a representation for a given DOI.
void	describeDelete(MethodInfo info) Describes the DELETE method.
void	describeGet(MethodInfo info) Describes the GET method.
void	doInit() Init by getting a DOI.

org.restlet.represent ation.Representation	getMetadata() Retuns the metadata for a given DOI.
Resource	getMetadataAsJson() Returns the metadata as JSON.

Methods inherited from class fr.cnes.doi.resource.mds.BaseMdsResource

checkPermission, describeDelete, describePost, doInit, explainRepresentation, extractSelectedRoleFromRequestIfExists, getAttributePath, getDoiApp

Methods inherited from class fr.cnes.doi.resource.AbstractResource

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class org.restlet.ext.wadl.WadlServerResource

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class org.restlet.resource.Resource

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

GET_METADATA

public static final java.lang.String **GET_METADATA**

> Function of this resource #GET_METADATA.
> Constant value: **Get a Metadata**

DELETE_METADATA

public static final java.lang.String **DELETE_METADATA**

> Function of this resource #DELETE_METADATA.
> Constant value: **Delete a Metadata**

Constructors

MetadataResource

public **MetadataResource**()

Methods

doInit

```
protected void doInit()
    throws DoiServerException
```

> Init by getting a DOI.

> **Throws:**
> > [DoiServerException](#) - - if a problem happens

getMetadata

```
public org.restlet.representation.Representation getMetadata()
    throws DoiServerException
```

> Retuns the metadata for a given DOI. 200 status is returned when the operation is successful.

> **Returns:**
> > the metadata for a given DOI as Json or XML

> **Throws:**

DoiServerException - - if the response is not a success

- ClientMDS.DATACITE_API_RESPONSE.BAD_REQUEST
- ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM

getMetadataAsJson

public Resource **getMetadataAsJson**()
  throws IOException

Returns the metadata as JSON.

Returns:
JSON representation.

Throws:
IOException - - if JSON conversion problem occurs

deleteMetadata

public org.restlet.representation.Representation **deleteMetadata**()
  throws DoiServerException

Deletes a representation for a given DOI. 200 status when the operation is successful.

Returns:
the deleted representation

Throws:
DoiServerException - - if the response is not a success

- DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION
- DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT
- ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM

describeGet

protected final void **describeGet**(MethodInfo info)

Describes the GET method. The different representations are the followings:

- ClientMDS.DATACITE_API_RESPONSE.SUCCESS
- ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND
- ClientMDS.DATACITE_API_RESPONSE.DOI_INACTIVE
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM

Parameters:
info - Wadl description for GET method

describeDelete

```
protected final void describeDelete(MethodInfo info)
```

> Describes the DELETE method. The different representations are the followings:

- ClientMDS.DATACITE_API_RESPONSE.SUCCESS
- ClientMDS.DATACITE_API_RESPONSE.DOI_NOT_FOUND
- DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE
- DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION
- DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT
- DoiMdsApplication.API_MDS.DATACITE_PROBLEM

Parameters:
> info - Wadl description for DELETE method

describeDelete

```
protected final void describeDelete(MethodInfo info)
```

fr.cnes.doi.resource.mds
Class MetadatasResource

```
java.lang.Object
    |
    +-org.restlet.resource.Resource
        |
        +-org.restlet.resource.ServerResource
            |
            +-org.restlet.ext.wadl.WadlServerResource
                |
                +-fr.cnes.doi.resource.AbstractResource
                    |
                    +-fr.cnes.doi.resource.mds.BaseMdsResource
                        |
                        +-fr.cnes.doi.resource.mds.MetadatasResource
```

public class **MetadatasResource**
extends BaseMdsResource

Resource to handle a collection of metadata.
Author:
       Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	CREATE_METADATA
	Function of this resource #CREATE_METADATA.
	Value: **Create Metadata**

Fields inherited from class fr.cnes.doi.resource.mds.BaseMdsResource
DOI_PARAMETER, LOG, URL_PARAMETER

Constructor Summary

public	MetadatasResource()

Method Summary

String	createMetadata(org.restlet.representation.Representation entity)
	Create Metadata for a given DOI.
void	describePost(MethodInfo info)
	Describes the POST method.
void	doInit()
	Init.

Methods inherited from class fr.cnes.doi.resource.mds.BaseMdsResource
checkPermission, describeDelete, describePost, doInit, explainRepresentation, extractSelectedRoleFromRequestIfExists, getAttributePath, getDoiApp

Methods inherited from class fr.cnes.doi.resource.AbstractResource

addRequestDocToMethod, addRequestDocToMethod, addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, createResponseDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation

Methods inherited from class `org.restlet.ext.wadl.WadlServerResource`

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, describe, describe, describeDelete, describeGet, describeMethod, describeMethod, describeOptions, describeParameters, describePatch, describePost, describePut, doInit, getDescription, getName, getParameter, getParameters, getPreferredWadlVariant, getResourcePath, getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing, setDescription, setName

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

CREATE_METADATA

public static final java.lang.String **CREATE_METADATA**

> Function of this resource #CREATE_METADATA.
> Constant value: **Create Metadata**

Constructors

MetadatasResource

public **MetadatasResource**()

Methods

doInit

protected void **doInit**()
  throws [DoiServerException](#)

> Init.

> **Throws:**
> > [DoiServerException](#) - - if a problem happens

createMetadata

public String **createMetadata**(org.restlet.representation.Representation entity)
  throws [DoiServerException](#)

> Create Metadata for a given DOI. The DOI name is given in the metadata entity. This request stores new version of metadata and returns a 201 status when the operation is successful.

> **Parameters:**
> > entity - Metadata representation

> **Returns:**
> > short explanation of status code e.g. CREATED, HANDLE_ALREADY_EXISTS etc

> **Throws:**
> > [DoiServerException](#) - - if the response is not a success

> > - [DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE](#)
> > - [DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE](#)
> > - [DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION](#)
> > - [DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT](#)
> > - [DoiMdsApplication.API_MDS.DATACITE_PROBLEM](#)
> > - [DoiMdsApplication.API_MDS.METADATA_VALIDATION](#)
> > - [DoiMdsApplication.API_MDS.NETWORK_PROBLEM](#)

describePost

protected final void **describePost**(MethodInfo info)

Describes the POST method. This request stores new version of DOI metadata. The request body must contain a valid XML.

- `DoiMdsApplication.API_MDS.CREATE_METADATA`
- `DoiMdsApplication.API_MDS.METADATA_VALIDATION`
- `DoiMdsApplication.API_MDS.DATACITE_PROBLEM`
- `DoiMdsApplication.API_MDS.NETWORK_PROBLEM`
- `DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE`
- `DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE`
- `DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION`
- `DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT`

Parameters:
> `info` - Wadl description for POST method

Package
fr.cnes.doi.security

Provides classes to secure the server.

fr.cnes.doi.security
Class AllowerIP

```
java.lang.Object
    │
    +-org.restlet.Restlet
        │
        +-org.restlet.routing.Filter
            │
            +-fr.cnes.doi.security.AllowerIP
```

All Implemented Interfaces:
> org.restlet.Uniform

---

public class **AllowerIP**
extends org.restlet.routing.Filter

IP filtering. When the service is disabled, no filtering is applied. When the service is enabled, the service allows IPs such as 127.0.0.1 and IPs coming from `addCustomIP(Set)` Allowed IPs are set based on a parameter from the configuration file `Consts.ADMIN_IP_ALLOWER`

Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	**LOCALHOST_IPV4** Localhost in IPv4. Value: **127.0.0.1**
public static final	**LOCALHOST_IPV6** Localhost in IPv6. Value: **0:0:0:0:0:0:0:1**

Fields inherited from class `org.restlet.routing.Filter`

CONTINUE, SKIP, STOP

Constructor Summary

public	**AllowerIP**(org.restlet.Context context, boolean isEnabledIP) Constructor based on the context and a parameter to make enabled/disabled the service

Method Summary

int	**beforeHandle**(org.restlet.Request request, org.restlet.Response response) Before Handler.
Set	**getAllowedAddresses**() Returns the allowed addresses.
boolean	**isEnabled**() Returns True when the service is enabled otherwise False.

Methods inherited from class `org.restlet.routing.Filter`

afterHandle, beforeHandle, doHandle, getNext, handle, hasNext, setNext, setNext, start, stop

Methods inherited from class `org.restlet.Restlet`

createFinder, finalize, getApplication, getAuthor, getContext, getDescription, getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle, isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName, setOwner, start, stop

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `org.restlet.Uniform`

handle

Fields

LOCALHOST_IPV6

public static final java.lang.String **LOCALHOST_IPV6**

Localhost in IPv6.
Constant value: **0:0:0:0:0:0:0:1**

LOCALHOST_IPV4

public static final java.lang.String **LOCALHOST_IPV4**

Localhost in IPv4.
Constant value: **127.0.0.1**

Constructors

AllowerIP

public **AllowerIP**(org.restlet.Context context,
                boolean isEnabledIP)

Constructor based on the context and a parameter to make enabled/disabled the service

Parameters:
    context - context
    isEnabledIP - True when the service is enabled otherwise False

Methods

beforeHandle

protected int **beforeHandle**(org.restlet.Request request,
        org.restlet.Response response)

Before Handler.

Parameters:
    `request` - request
    `response` - response

Returns:
    beforeHandler

getAllowedAddresses

`public Set getAllowedAddresses()`

Returns the allowed addresses.

Returns:
    the allowed addresses

isEnabled

`public boolean isEnabled()`

Returns True when the service is enabled otherwise False.

Returns:
    True when the service is enabled otherwise False

fr.cnes.doi.security
Class LoginBasedVerifier

```
java.lang.Object
    |
    +-fr.cnes.doi.security.LoginBasedVerifier
```

All Implemented Interfaces:
> org.restlet.security.Verifier

---

public class **LoginBasedVerifier**
extends Object
implements org.restlet.security.Verifier

Security class for checking login/password.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from interface `org.restlet.security.Verifier`

`RESULT_INVALID, RESULT_MISSING, RESULT_STALE, RESULT_UNKNOWN, RESULT_UNSUPPORTED, RESULT_VALID`

Constructor Summary

public	[LoginBasedVerifier](#)() Constructor.

Method Summary

int	[verify](#)(org.restlet.Request request, org.restlet.Response response) Verifies the user name and his password.

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `org.restlet.security.Verifier`

`verify`

Constructors

LoginBasedVerifier

public **LoginBasedVerifier**()

> Constructor.

Methods

---

verify

```
public int verify(org.restlet.Request request,
        org.restlet.Response response)
```

Verifies the user name and his password.

Parameters:
request - request

response - response

Returns:
the result

verify

```
public int verify(org.restlet.Request request,
        org.restlet.Response response)
```

fr.cnes.doi.security
Class RoleAuthorizer

```
java.lang.Object
    │
    +–fr.cnes.doi.security.RoleAuthorizer
```

All Implemented Interfaces:
> Observer

---

public final class **RoleAuthorizer**
extends Object
implements Observer

Security class for authentication by REALM.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	GROUP_ADMIN Group name for the administrators #GROUP_ADMIN. Value: **Administrator**
public static final	GROUP_USERS Group name for the users #GROUP_USERS. Value: **Users**
public static final	ROLE_ADMIN Role name for the administrators #ROLE_ADMIN. Value: **admin**

Method Summary

boolean	createRealmFor(org.restlet.Application app) Init Realm for an application.
static RoleAuthorizer	getInstance() Access to unique INSTANCE of role authorizer
void	update(Observable obs, Object obj) Adds/removes the *users* group to the new role name related to the application MDS

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.util.Observer
update

Fields

ROLE_ADMIN

`public static final java.lang.String` **`ROLE_ADMIN`**

> Role name for the administrators #ROLE_ADMIN.
> Constant value: **`admin`**

GROUP_USERS

`public static final java.lang.String` **`GROUP_USERS`**

> Group name for the users #GROUP_USERS.
> Constant value: **`Users`**

GROUP_ADMIN

`public static final java.lang.String` **`GROUP_ADMIN`**

> Group name for the administrators #GROUP_ADMIN.
> Constant value: **`Administrator`**

Methods

getInstance

`public static` [`RoleAuthorizer`](#) **`getInstance`**`()`

> Access to unique INSTANCE of role authorizer

> **Returns:**
> the configuration instance.

createRealmFor

`public boolean` **`createRealmFor`**`(org.restlet.Application app)`

> Init Realm for an application.

> **Parameters:**
> `app` - application

> **Returns:**
> True when the realm is initialized otherwise False

update

`public void` **`update`**`(Observable obs,`
`        Object obj)`

> Adds/removes the *users* group to the new role name related to the application MDS

> **Parameters:**
> `obs` - observable
> `obj` - message

fr.cnes.doi.security
Class TokenBasedVerifier

```
java.lang.Object
    │
    └─fr.cnes.doi.security.TokenBasedVerifier
```

All Implemented Interfaces:
      org.restlet.security.Verifier

---

public class **TokenBasedVerifier**
extends Object
implements org.restlet.security.Verifier

Security class for checking token.
Author:
      Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from interface `org.restlet.security.Verifier`

`RESULT_INVALID, RESULT_MISSING, RESULT_STALE, RESULT_UNKNOWN, RESULT_UNSUPPORTED, RESULT_VALID`

Constructor Summary

public	TokenBasedVerifier(AbstractTokenDBHelper tokenDB) Constructor.

Method Summary

int	verify(org.restlet.Request request, org.restlet.Response response) Verifies the token.

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `org.restlet.security.Verifier`

`verify`

Constructors

TokenBasedVerifier

public **TokenBasedVerifier**(AbstractTokenDBHelper tokenDB)

    Constructor.

    Parameters:
        tokenDB - token DB

Methods

verify

```
public int verify(org.restlet.Request request,
          org.restlet.Response response)
```

Verifies the token.

Parameters:
request - request
response - response

Returns:
the result

fr.cnes.doi.security
Class TokenSecurity

```
java.lang.Object
    │
    +-fr.cnes.doi.security.TokenSecurity
```

public final class **TokenSecurity**
extends Object

Security class for token generation.
Author:
      Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Nested Class Summary

class	TokenSecurity.TimeUnit
	TokenSecurity.TimeUnit

Field Summary

public static final	DATE_FORMAT
	Default date format for the token #DATE_FORMAT
	Value: **EEE MMM dd HH:mm:ss z yyyy**
public static final	DEFAULT_TOKEN_KEY
	Default token key.
	Value: **Yn2kjibddFAWtnPJ2AFlL8WXmohJMCvigQggaEypa5E=**
public static final	PROJECT_ID
	Project ID name in token.
	Value: **projectID**
public static final	PROJECT_NAME
	Project name in token.
	Value: **projectName**

Method Summary

static String	createKeySignatureHS256()
	Creates a key for token signature encoded with the algorithm HS256
String	generate(String userID, int projectID, TokenSecurity.TimeUnit timeUnit, int amount)
	Creates a token.
String	generate(String userID, TokenSecurity.TimeUnit timeUnit, int amount)
	Creates a token.
static TokenSecurity	getInstance()
	Access to unique INSTANCE of Settings
AbstractTokenDBHelper	getTokenDB()
	Returns the token DB.

io.jsonwebtoken.Jws	getTokenInformation(String jwtToken)	
	Returns the token information.	
String	getTokenKey()	
	Returns the token key computed by the algorithm HS256.	
boolean	isExpired(String token)	
	Returns true when the token is expired otherwise false.	
void	setTokenKey(String tokenKey)	
	Sets a custom token key.	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

PROJECT_ID

`public static final java.lang.String` **`PROJECT_ID`**

> Project ID name in token.
> Constant value: **`projectID`**

PROJECT_NAME

`public static final java.lang.String` **`PROJECT_NAME`**

> Project name in token.
> Constant value: **`projectName`**

DEFAULT_TOKEN_KEY

`public static final java.lang.String` **`DEFAULT_TOKEN_KEY`**

> Default token key.
> Constant value: **`Yn2kjibddFAWtnPJ2AFlL8WXmohJMCvigQggaEypa5E=`**

DATE_FORMAT

`public static final java.lang.String` **`DATE_FORMAT`**

> Default date format for the token #DATE_FORMAT
> Constant value: **`EEE MMM dd HH:mm:ss z yyyy`**

Methods

getInstance

`public static` TokenSecurity **`getInstance`**`()`

> Access to unique INSTANCE of Settings
>
> **Returns:**

(continued from last page)

the configuration instance.

createKeySignatureHS256

```
public static String createKeySignatureHS256()
```

Creates a key for token signature encoded with the algorithm HS256

Returns:
key encoded in Base64

See Also:
Base64

generate

```
public String generate(String userID,
        int projectID,
        TokenSecurity.TimeUnit timeUnit,
        int amount)
  throws TokenSecurityException
```

Creates a token.

Parameters:
userID - The user that creates the token
projectID - The project ID
timeUnit - The time unit for the date expiration
amount - the amount of timeUnit for the date expiration

Returns:
JWT token

Throws:
fr.cnes.doi.exception.TokenSecurityException - if the projectID is not first registered

generate

```
public String generate(String userID,
        TokenSecurity.TimeUnit timeUnit,
        int amount)
```

Creates a token. (no project ID required)

Parameters:
userID - The user that creates the token
timeUnit - The time unit for the date expiration
amount - the amount of timeUnit for the date expiration

Returns:
JWT token

getTokenKey

```
public String getTokenKey()
```

Returns the token key computed by the algorithm HS256.

Returns:
the token key encoded in base64

setTokenKey

```
public void setTokenKey(String tokenKey)
```

Sets a custom token key.

Parameters:
tokenKey - token key

isExpired

```
public boolean isExpired(String token)
```

Returns true when the token is expired otherwise false.

Parameters:
token - token

Returns:
true when the token is expired otherwise false.

getTokenInformation

```
public io.jsonwebtoken.Jws getTokenInformation(String jwtToken)
  throws DoiRuntimeException
```

Returns the token information.

Parameters:
jwtToken - token JWT

Returns:
the information or null when the token is expired.

Throws:
DoiRuntimeException - - if an error happens getting information from the token

getTokenDB

```
public AbstractTokenDBHelper getTokenDB()
```

Returns the token DB.

Returns:
the token DB

fr.cnes.doi.security
Class TokenSecurity.TimeUnit

```
java.lang.Object
    │
    +-java.lang.Enum
         │
         +-fr.cnes.doi.security.TokenSecurity.TimeUnit
```

All Implemented Interfaces:
Serializable, Comparable

---

public static final class **TokenSecurity.TimeUnit**
extends Enum

Time unit.

Field Summary

public static final	[DAY](#) Day.
public static final	[HOUR](#) Hour.
public static final	[YEAR](#) Year.

Method Summary

int	[getTimeUnit](#)() Returns the time unit.
static [TokenSecurity.TimeUnit](#)	[getTimeUnitFrom](#)(int value) Returns the time unit from a value.
static [TokenSecurity.TimeUnit](#)	[valueOf](#)(String name)
static [TokenSecurity.TimeUnit[]](#)	[values](#)()

Methods inherited from class java.lang.Enum

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.lang.Comparable

---

compareTo

Fields

HOUR

`public static final fr.cnes.doi.security.TokenSecurity.TimeUnit ` **`HOUR`**

Hour.

DAY

`public static final fr.cnes.doi.security.TokenSecurity.TimeUnit ` **`DAY`**

Day.

YEAR

`public static final fr.cnes.doi.security.TokenSecurity.TimeUnit ` **`YEAR`**

Year.

Methods

values

`public static ` [`TokenSecurity.TimeUnit[]`](#) **`values`**`()`

valueOf

`public static ` [`TokenSecurity.TimeUnit`](#) **`valueOf`**`(String name)`

getTimeUnit

`public int ` **`getTimeUnit`**`()`

Returns the time unit.

Returns:
the time unit

getTimeUnitFrom

`public static ` [`TokenSecurity.TimeUnit`](#) **`getTimeUnitFrom`**`(int value)`

Returns the time unit from a value.

Parameters:
value - vale

Returns:

time unit

fr.cnes.doi.security
Class UtilsCryptography

```
java.lang.Object
    │
    +-fr.cnes.doi.security.UtilsCryptography
```

public final class **UtilsCryptography**
extends Object

Utility class to encrypt/decrypt
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	CIPHER_ALGORITHM
	Name of the transformation.
	Value: **AES**
public static final	DEFAULT_SECRET_KEY
	Default key to encrypt/decrypt.
	Value: **16BYTESSECRETKEY**
public static final	KEY_ALGORITHM
	Name of the secret-key algorithm to be associated with the given key material.
	Value: **AES**

Method Summary

static String	decrypt(String encryptedInput)
	Decrypts the string with the DEFAULT_SECRET_KEY.
static String	decrypt(String encryptedInput, String secretKey)
	Decrypts the string with a custom secret key.
static String	encrypt(String str)
	Encrypts the string with the DEFAULT_SECRET_KEY.
static String	encrypt(String str, String secretKey)
	Encrypts the string with a specific secret key.

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

CIPHER_ALGORITHM

public static final java.lang.String **CIPHER_ALGORITHM**

Name of the transformation.
Constant value: **AES**

KEY_ALGORITHM

`public static final java.lang.String` **KEY_ALGORITHM**

Name of the secret-key algorithm to be associated with the given key material.
Constant value: **AES**

DEFAULT_SECRET_KEY

`public static final java.lang.String` **DEFAULT_SECRET_KEY**

Default key to encrypt/decrypt. The key is a 16 bits length key
Constant value: **16BYTESSECRETKEY**

Methods

decrypt

`public static String` **decrypt**`(String encryptedInput)`

Decrypts the string with the DEFAULT_SECRET_KEY.

Parameters:
    `encryptedInput` - string to decrypt.

Returns:
    the decrypted string

decrypt

`public static String` **decrypt**`(String encryptedInput,`
        `String secretKey)`

Decrypts the string with a custom secret key.

Parameters:
    `encryptedInput` - string to decrypt.
    `secretKey` - the secret key.

Returns:
    the decrypted string

encrypt

`public static String` **encrypt**`(String str)`

Encrypts the string with the DEFAULT_SECRET_KEY.

Parameters:
    `str` - string to encrypt

Returns:
    the encrypted string.

encrypt

```
public static String encrypt(String str,
        String secretKey)
```

Encrypts the string with a specific secret key.

Parameters:
str - string to encrypt
secretKey - the secret key of 16 bits length

Returns:
the decrypted string

encrypt

```
public static String encrypt(String str,
        String secretKey)
```

fr.cnes.doi.security
Class UtilsHeader

```
java.lang.Object
    │
    +-fr.cnes.doi.security.UtilsHeader
```

public final class **UtilsHeader**
extends Object

Utility class.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	[SELECTED_ROLE_PARAMETER](#) The parameter to select the role of the operator when he is implied in different groups #SELECTED_ROLE_PARAMETER. Value: **selectedRole**

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

SELECTED_ROLE_PARAMETER

public static final java.lang.String **SELECTED_ROLE_PARAMETER**

>   The parameter to select the role of the operator when he is implied in different groups #SELECTED_ROLE_PARAMETER.
>   Constant value: **selectedRole**

Package
fr.cnes.doi.server

Provides classes to create the server and start it.

The architecture of the DOI server is composed of the following elements:

- A HTTP server
- A HTTPS server
- Some singletons classes for accessing to the DOI configuration file
- Administration application
- CrossCite application
- DOI MDS application

A user can basically query DataCite for getting, creating, updating, deleting and searching a DOI. For this, he should use the web services of each application or the web page available in the administration application. According to the web service, the authentication/authorization system must be different. The different system could be one of the following or all of them in the same time with some of them optional :

- An authentication based on Token
- An authentication based on simple login/password
- An IP filtering
- An authorization by role

fr.cnes.doi.server
Class DoiServer

```
java.lang.Object
    │
    +-org.restlet.Restlet
        │
        +-org.restlet.Component
            │
            +-fr.cnes.doi.server.DoiServer
```

All Implemented Interfaces:
    org.restlet.Uniform

---

public class **DoiServer**
extends org.restlet.Component

DoiServer contains the configuration of this server and the methods to start/stop it.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	CITATION_URI URI of the Citation application. Value: **/citation**
public static final	DEFAULT_MAX_CONNECTIONS_PER_HOST Default number for RESTLET_MAX_CONNECTIONS_PER_HOST. Value: **-1**
public static final	DEFAULT_MAX_TOTAL_CONNECTIONS Default number for RESTLET_MAX_TOTAL_CONNECTIONS. Value: **-1**
public static final	DEFAULT_SSL_CTX Default value for SSL_CTX_FACTORY parameter : #DEFAULT_SSL_CTX. Value: **org.restlet.engine.ssl.DefaultSslContextFactory**
public static final	JKS_DIRECTORY Directory #JKS_DIRECTORY. Value: **jks**
public static final	JKS_FILE JKS file, which is stored in the JAR. Value: **doiServerKey.jks**
public static final	KEY_PWD Key password parameter #KEY_PWD. Value: **keyPassword**
public static final	KEY_STORE_PATH Key store parameter #KEY_STORE_PATH. Value: **keyStorePath**

---

public static final	KEY_STORE_PWD	
	Key store password parameter #KEY_STORE_PWD.	
	Value: **keyStorePassword**	
public static final	KEY_STORE_TYPE	
	Key store type parameter #KEY_STORE_TYPE.	
	Value: **keyStoreType**	
public static final	MDS_URI	
	URI of the Meta Data Store application.	
	Value: **/mds**	
public static final	RESTLET_MAX_CONNECTIONS_PER_HOST	
	Number connections per host.	
	Value: **maxConnectionsPerHost**	
public static final	RESTLET_MAX_TOTAL_CONNECTIONS	
	Number total connections.	
	Value: **maxTotalConnections**	
public static final	SSL_CTX_FACTORY	
	SslContectFactory parameter #SSL_CTX_FACTORY.	
	Value: **sslContextFactory**	
public static final	STATUS_URI	
	URI of the Datacite status.	
	Value: **/status**	
public static final	TRUST_STORE_PATH	
	Trust store path parameter #TRUST_STORE_PATH.	
	Value: **trustStorePath**	
public static final	TRUST_STORE_PWD	
	Trust store password parameter #TRUST_STORE_PATH.	
	Value: **trustStorePassword**	
public static final	TRUST_STORE_TYPE	
	Trust store type parameter #TRUST_STORE_PATH.	
	Value: **trustStoreType**	

Constructor Summary

public	DoiServer(DoiSettings settings)
	Creates an instance of the server with settings coming from the config.properties

Method Summary

void	start()
void	stop()

Methods inherited from class org.restlet.Component

```
getClients, getDefaultHost, getHosts, getInternalRouter, getLogService, getRealm,
getRealms, getServers, getServices, getStatusService, getTaskService, handle, main,
setClients, setContext, setDefaultHost, setHosts, setInternalRouter, setLogService,
setRealms, setServers, setStatusService, setTaskService, start, startClients,
startHelper, startRealms, startRouters, startServers, startServices, stop,
stopClients, stopHelper, stopRealms, stopRouters, stopServers, stopServices,
updateHosts
```

Methods inherited from class `org.restlet.Restlet`

```
createFinder, finalize, getApplication, getAuthor, getContext, getDescription,
getFinderClass, getLogger, getName, getOwner, handle, handle, handle, handle,
isStarted, isStopped, setAuthor, setContext, setDescription, setFinderClass, setName,
setOwner, start, stop
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Fields

DEFAULT_SSL_CTX

```
public static final java.lang.String DEFAULT_SSL_CTX
```

> Default value for SSL_CTX_FACTORY parameter : #DEFAULT_SSL_CTX.
> Constant value: **org.restlet.engine.ssl.DefaultSslContextFactory**

SSL_CTX_FACTORY

```
public static final java.lang.String SSL_CTX_FACTORY
```

> SslContectFactory parameter #SSL_CTX_FACTORY.
> Constant value: **sslContextFactory**

KEY_STORE_PATH

```
public static final java.lang.String KEY_STORE_PATH
```

> Key store parameter #KEY_STORE_PATH.
> Constant value: **keyStorePath**

KEY_STORE_PWD

```
public static final java.lang.String KEY_STORE_PWD
```

> Key store password parameter #KEY_STORE_PWD.
> Constant value: **keyStorePassword**

KEY_STORE_TYPE

public static final java.lang.String **KEY_STORE_TYPE**

Key store type parameter #KEY_STORE_TYPE.
Constant value: **keyStoreType**

KEY_PWD

public static final java.lang.String **KEY_PWD**

Key password parameter #KEY_PWD.
Constant value: **keyPassword**

TRUST_STORE_PATH

public static final java.lang.String **TRUST_STORE_PATH**

Trust store path parameter #TRUST_STORE_PATH.
Constant value: **trustStorePath**

TRUST_STORE_PWD

public static final java.lang.String **TRUST_STORE_PWD**

Trust store password parameter #TRUST_STORE_PATH.
Constant value: **trustStorePassword**

TRUST_STORE_TYPE

public static final java.lang.String **TRUST_STORE_TYPE**

Trust store type parameter #TRUST_STORE_PATH.
Constant value: **trustStoreType**

JKS_FILE

public static final java.lang.String **JKS_FILE**

JKS file, which is stored in the JAR.
Constant value: **doiServerKey.jks**

JKS_DIRECTORY

public static final java.lang.String **JKS_DIRECTORY**

Directory #JKS_DIRECTORY. where JKS_FILE is located.
Constant value: **jks**

MDS_URI

public static final java.lang.String **MDS_URI**

URI of the Meta Data Store application.
Constant value: **/mds**

CITATION_URI

public static final java.lang.String **CITATION_URI**

URI of the Citation application.
Constant value: **/citation**

STATUS_URI

```
public static final java.lang.String STATUS_URI
```

URI of the Datacite status.
Constant value: **/status**

RESTLET_MAX_TOTAL_CONNECTIONS

```
public static final java.lang.String RESTLET_MAX_TOTAL_CONNECTIONS
```

Number total connections.
Constant value: **maxTotalConnections**

RESTLET_MAX_CONNECTIONS_PER_HOST

```
public static final java.lang.String RESTLET_MAX_CONNECTIONS_PER_HOST
```

Number connections per host.
Constant value: **maxConnectionsPerHost**

DEFAULT_MAX_TOTAL_CONNECTIONS

```
public static final java.lang.String DEFAULT_MAX_TOTAL_CONNECTIONS
```

Default number for RESTLET_MAX_TOTAL_CONNECTIONS.
Constant value: **-1**

DEFAULT_MAX_CONNECTIONS_PER_HOST

```
public static final java.lang.String DEFAULT_MAX_CONNECTIONS_PER_HOST
```

Default number for RESTLET_MAX_CONNECTIONS_PER_HOST.
Constant value: **-1**

Constructors

DoiServer

```
public DoiServer(DoiSettings settings)
```

Creates an instance of the server with settings coming from the config.properties

Parameters:
settings - settings

Methods

start

```
public void start()
  throws Exception
```

stop

```
public void stop()
    throws Exception
```

stop

```
public void stop()
    throws Exception
```

fr.cnes.doi.server
Class Starter

```
java.lang.Object
     │
     +-fr.cnes.doi.server.Starter
```

public final class **Starter**
extends Object

DOI server
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	[BITS_16](#) Length of the secret key #BITS_16 Value: **16**

Method Summary

static void	[main](#)(String[] argv) Main.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

BITS_16

public static final int **BITS_16**

Length of the secret key #BITS_16
Constant value: **16**

Methods

main

public static void **main**(String[] argv)

Main.

Parameters:
    argv - command line arguments

Package
fr.cnes.doi.services

Provides classes to monitor the speed of <u>Meta Data Store application</u>.

fr.cnes.doi.services
Class CnesStatusService

```
java.lang.Object
    │
    +-org.restlet.service.Service
        │
        +-org.restlet.service.StatusService
            │
            +-fr.cnes.doi.services.CnesStatusService
```

public class **CnesStatusService**
extends org.restlet.service.StatusService

Provides a specific error page, which is sent in the HTTP response.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[CnesStatusService](#)() Creates a specific error page.

Method Summary

org.restlet.represent ation.Representation	[getRepresentation](#)(org.restlet.data.Status status, org.restlet.Request request, org.restlet.Response response) Returns the representation of the status page.

Methods inherited from class `org.restlet.service.StatusService`

createInboundFilter, getConnegService, getContactEmail, getConverterService, getHomeRef, getMetadataService, getRepresentation, getStatus, getStatus, isOverwriting, setConnegService, setContactEmail, setConverterService, setHomeRef, setMetadataService, setOverwriting, toRepresentation, toRepresentation, toStatus, toStatus

Methods inherited from class `org.restlet.service.Service`

createInboundFilter, createOutboundFilter, getContext, isEnabled, isStarted, isStopped, setContext, setEnabled, start, stop

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

CnesStatusService

public **CnesStatusService**()

>   Creates a specific error page.

Methods

getRepresentation

```
public org.restlet.representation.Representation
getRepresentation(org.restlet.data.Status status,
        org.restlet.Request request,
        org.restlet.Response response)
```

Returns the representation of the status page.

Parameters:
status - Status to send
request - request to server
response - response from the server

Returns:
the representation of the error page

fr.cnes.doi.services
Class DoiMonitoring

```
java.lang.Object
    |
    +-fr.cnes.doi.services.DoiMonitoring
```

public class **DoiMonitoring**
extends Object

Speed monitoring (average time to answer requests).
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[DoiMonitoring](#)()

Method Summary

void	[addMeasurement](#)(org.restlet.data.Method name, String path, float duration) Add Measurement.
float	[getCurrentAverage](#)(org.restlet.data.Method name, String path) Returns the average speed of the measurement.
String	[getDescription](#)(org.restlet.data.Method name, String path) Returns the description.
boolean	[isRegistered](#)(org.restlet.data.Method name, String path) Checks if the features is registered.
void	[register](#)(org.restlet.data.Method name, String path, String description) Registers the features to monitor.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

DoiMonitoring

public **DoiMonitoring**()

Methods

register

```
public void register(org.restlet.data.Method name,
        String path,
        String description)
```

Registers the features to monitor.

Parameters:
name - Method
path - path URI
description - Feature's description

addMeasurement

```
public void addMeasurement(org.restlet.data.Method name,
        String path,
        float duration)
```

Add Measurement.

Parameters:
name - method
path - path URI
duration - duration in ms

isRegistered

```
public boolean isRegistered(org.restlet.data.Method name,
        String path)
```

Checks if the features is registered.

Parameters:
name - method
path - Path URI

Returns:
True when the feature is registered

getCurrentAverage

```
public float getCurrentAverage(org.restlet.data.Method name,
        String path)
```

Returns the average speed of the measurement.

Parameters:
name - method name
path - path URI

Returns:
the average speed

getDescription

```
public String getDescription(org.restlet.data.Method name,
        String path)
```

Returns the description.

Parameters:
    `name` - method name
    `path` - path URI

Returns:
    the description

fr.cnes.doi.services
Class DoiMonitoringRecord

```
java.lang.Object
    │
    +-fr.cnes.doi.services.DoiMonitoringRecord
```

public class **DoiMonitoringRecord**
extends Object

Monitoring record containing:

- Description of the record
- Average
- Nb total of recorded values (to compute the average)

Author:
> Claire

Constructor Summary

public	[DoiMonitoringRecord](String description, float average, int nbAccess) Constructor.

Method Summary

float	[getAverage](###)() Returns the average speed of the request.
String	[getDescription](###)() Returns the service description.
int	[getNbAccess](###)() Returns the number of access.
void	[setAverage](###)(float average) Sets the average speed of the request.
void	[setDescription](###)(String description) Sets the service description.
void	[setNbAccess](###)(int nbAccess) Sets the number of access.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

DoiMonitoringRecord

```
public DoiMonitoringRecord(String description,
                           float average,
                           int nbAccess)
```

Constructor.

Parameters:
description - Service description
average - Average speed of the request
nbAccess - Number of access

Methods

getDescription

```
public String getDescription()
```

Returns the service description.

Returns:
the description

setDescription

```
public void setDescription(String description)
```

Sets the service description.

Parameters:
description - the description to set

getAverage

```
public float getAverage()
```

Returns the average speed of the request.

Returns:
the average

setAverage

```
public void setAverage(float average)
```

Sets the average speed of the request.

Parameters:
average - the average to set

getNbAccess

```
public int getNbAccess()
```

Returns the number of access.

Returns:

the nbAccess

setNbAccess

public void **setNbAccess**(int nbAccess)

Sets the number of access.

Parameters:
nbAccess - the nbAccess to set

setNbAccess

public void **setNbAccess**(int nbAccess)

fr.cnes.doi.services
Class DOIUsersUpdate

```
java.lang.Object
    |
    +-fr.cnes.doi.services.DOIUsersUpdate
```

All Implemented Interfaces:
> Runnable

---

public class **DOIUsersUpdate**
extends Object
implements Runnable

Updates the database from the authentication system.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[DOIUsersUpdate](#)()

Method Summary

void	[run](#)()

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Runnable`

run

Constructors

DOIUsersUpdate

public **DOIUsersUpdate**()

Methods

run

public void **run**()

---

fr.cnes.doi.services
Class LandingPageMonitoring

```
java.lang.Object
    │
    +-fr.cnes.doi.services.LandingPageMonitoring
```

All Implemented Interfaces:
Runnable

---

public class **LandingPageMonitoring**
extends Object
implements Runnable

Provides a check on the availability of each published landing page publisher
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[LandingPageMonitoring](#)()

Method Summary

void	[run](#)() run.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Runnable`

run

Constructors

LandingPageMonitoring

public **LandingPageMonitoring**()

Methods

run

public void **run**()

run.

---

fr.cnes.doi.services
Class UpdateTokenDataBase

```
java.lang.Object
   │
   +-fr.cnes.doi.services.UpdateTokenDataBase
```

All Implemented Interfaces:
>Runnable

---

public class **UpdateTokenDataBase**
extends Object
implements Runnable

Updates token database. The service checks if the token is expired. When it is expired, the token is removed from the database.
Author:
>Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[UpdateTokenDataBase](#)()

Method Summary

void	[run](#)()

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Runnable`

run

Constructors

UpdateTokenDataBase

public **UpdateTokenDataBase**()

Methods

run

public void **run**()

Package
fr.cnes.doi.settings

Provides settings for the server. The settings are :

- `Configuration` settings
- `Proxy` settings
- `Email` settings
- `Jetty` settings

fr.cnes.doi.settings

fr.cnes.doi.settings
Class Consts

```
java.lang.Object
    │
    +-fr.cnes.doi.settings.Consts
```

public final class **Consts**
extends Object

Consts contains all configuration variables, which are possible to use in the config.properties.
Author:
    Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	ADMIN_IP_ALLOWER Allowed IPs for the administration application. Value: **Starter.admin.IP.allower**
public static final	APP_NAME Application's name. Value: **Starter.APP_NAME**
public static final	ATTRIBUTION Attributes name in LDAP for fullname. Value: **Starter.attribution**
public static final	CONTEXT_MODE Context (DEV, POST_DEV, PRE_PROD, PROD) of the use. Value: **Starter.CONTEXT_MODE**
public static final	COPYRIGHT Application's copyright. Value: **Starter.COPYRIGHT**
public static final	DATACITE_SCHEMA DataCite schema. Value: **Starter.dataciteSchema**
public static final	DB_UPDATE_JOB_PERIOD Update Database job period Value: **Starter.updateDatabaseJob.period**
public static final	ENCRYPTED_FIELDS True when login/password are encoded otherwise false. Value: **Starter.encrypted_fields**
public static final	INIST_DOI DOI prefix, which is given by INIST. Value: **Starter.Inist.doi**

public static final	INIST_LOGIN INIST login to use DATACITE's web services. Value: **Starter.Inist.login**
public static final	INIST_PWD INIST password to use DATACITE's web services. Value: **Starter.Inist.pwd**
public static final	JETTY_ACCEPT_QUEUE_SIZE Connector accept queue size; also known as accept backlog. Value: **Starter.ACCEPT_QUEUE_SIZE**
public static final	JETTY_ACCEPTOR_THREADS Connector acceptor thread count; when -1, Jetty will default to Runtime.availableProcessors() / 2, with a minimum of 1. Value: **Starter.ACCEPTOR_THREADS**
public static final	JETTY_GRACEFUL_SHUTDOWN Connector stop timeout in milliseconds; the maximum time allowed for the service to shutdown Value: **Starter.GRACEFUL_SHUTDOWN**
public static final	JETTY_IO_MAX_IDLE_TIME_MS Connector idle timeout in milliseconds; see Socket.setSoTimeout(int); this value is interpreted as the maximum time between some progress being made on the connection; so if a single byte is read or written, then the timeout is reset. Value: **Starter.IO_MAX_IDLE_TIME_MS**
public static final	JETTY_LOW_RESOURCES_MAX_CONNECTIONS Low resource monitor max connections; when 0, the check is disabled. Value: **Starter.LOW_RESOURCES_MAX_CONNECTIONS**
public static final	JETTY_LOW_RESOURCES_MAX_IDLE_TIME_MS Time in ms that connections will persist if listener is low on resources. Value: **Starter.LOW_RESOURCES_MAX_IDLE_TIME_MS**
public static final	JETTY_LOW_RESOURCES_MAX_MEMORY Low resource monitor max memory in bytes; when 0, the check disabled; memory used is calculated as (totalMemory-freeMemory). Value: **Starter.LOW_RESOURCES_MAX_MEMORY**
public static final	JETTY_LOW_RESOURCES_PERIOD Low resource monitor period in milliseconds; when 0, low resource monitoring is disabled. Value: **Starter.LOW_RESOURCES_PERIOD**
public static final	JETTY_LOW_RESOURCES_THREADS Low resource monitor, whether to check if we're low on threads. Value: **Starter.LOW_RESOURCES_THREADS**
public static final	JETTY_MAX_THREADS Jetty : Thread pool max threads. Value: **Starter.MAX_THREADS**
public static final	JETTY_MIN_THREADS Jetty : Thread pool minimum threads. Value: **Starter.MIN_THREADS**

public static final	JETTY_REQUEST_BUFFER_SIZE
	HTTP header cache size in bytes.
	Value: **Starter.REQUEST_BUFFER_SIZE**
public static final	JETTY_REQUEST_HEADER_SIZE
	HTTP request header size in bytes; larger headers will allow for more and/or larger cookies plus larger form content encoded in a URL; however, larger headers consume more memory and can make a server more vulnerable to denial of service attacks.
	Value: **Starter.REQUEST_HEADER_SIZE**
public static final	JETTY_RESPONSE_BUFFER_SIZE
	HTTP output buffer size in bytes; a larger buffer can improve performance by allowing a content producer to run without blocking, however larger buffers consume more memory and may induce some latency before a client starts processing the content.
	Value: **Starter.RESPONSE_BUFFER_SIZE**
public static final	JETTY_RESPONSE_HEADER_SIZE
	HTTP response header size in bytes; larger headers will allow for more and/or larger cookies and longer HTTP headers (e.g.
	Value: **Starter.RESPONSE_HEADER_SIZE**
public static final	JETTY_SELECTOR_THREADS
	Connector selector thread count; when -1, Jetty will default to Runtime.availableProcessors().
	Value: **Starter.SELECTOR_THREADS**
public static final	JETTY_SO_LINGER_TIME
	Connector TCP/IP SO linger time in milliseconds; when -1 is disabled; see Socket.setSoLinger(boolean, int).
	Value: **Starter.SO_LINGER_TIME**
public static final	JETTY_THREAD_MAX_IDLE_TIME_MS
	Jetty : Thread pool idle timeout in milliseconds; threads that are idle for longer than this period may be stopped.
	Value: **Starter.THREAD_MAX_IDLE_TIME_MS**
public static final	JETTY_THREAD_STOP_TIME_MS
	Thread pool stop timeout in milliseconds; the maximum time allowed for the service to shutdown.
	Value: **Starter.THREAD_MAX_STOP_TIME_MS**
public static final	JETTY_THREADS_PRIORITY
	Jetty : Thread pool threads priority.
	Value: **Starter.THREADS_PRIORITY**
public static final	LOG_FORMAT
	LOG format.
	Value: **Starter.Server.Log.format**
public static final	NAME
	Name of the configuration file.
	Value: **Starter.NAME**
public static final	PLUGIN_AUTHENTICATION
	Plugin to load the authentication system.
	Value: **Starter.Plugin.Authentication**

public static final	PLUGIN_PROJECT_SUFFIX Plugin to load the project suffix database. Value: **Starter.Plugin.ProjectSuffix**	
public static final	PLUGIN_TOKEN Plugin to load the token database. Value: **Starter.Plugin.Token**	
public static final	PLUGIN_USER_GROUP_MGT Plugin to load the list of users and to fill group with users Value: **Starter.Plugin.UserGroupMgt**	
public static final	RESTLET_MAX_CONNECTIONS_PER_HOST Tunning Connection for Restlet Value: **Starter.maxConnectionsPerHost**	
public static final	RESTLET_MAX_TOTAL_CONNECTIONS Tunning connection for Restlet. Value: **Starter.maxTotalConnections**	
public static final	SERVER_CONTACT_ADMIN Email of the administrator. Value: **Starter.Server.contactAdmin**	
public static final	SERVER_HTTP_PORT HTTP port number. Value: **Starter.Server.HTTP.Port**	
public static final	SERVER_HTTPS_KEYSTORE_PASSWD HTTPS keystore password. Value: **Starter.Server.HTTPS.keystorePassword**	
public static final	SERVER_HTTPS_KEYSTORE_PATH HTTPS keystore path. Value: **Starter.Server.HTTPS.KeystorePath**	
public static final	SERVER_HTTPS_PORT HTTPS port number. Value: **Starter.Server.HTTPS.Port**	
public static final	SERVER_HTTPS_SECRET_KEY HTTPS password for this application. Value: **Starter.Server.HTTPS.SecretKey**	
public static final	SERVER_HTTPS_TRUST_STORE_PASSWD Trust store password. Value: **Starter.Server.HTTPS.TrustStorePassword**	
public static final	SERVER_HTTPS_TRUST_STORE_PATH Trust store path. Value: **Starter.Server.HTTPS.TrustStorePath**	
public static final	SERVER_NONPROXY_HOSTS Set of hostname on which the authentication to the proxy is disabled. Value: **Starter.NoProxy.hosts**	

public static final	SERVER_PROXY_HOST Proxy host name. Value: **Starter.Proxy.host**
public static final	SERVER_PROXY_JAAS_CONTEXT TODO. Value: **Starter.Proxy.Jass.Context**
public static final	SERVER_PROXY_JAAS_FILE TODO. Value: **Starter.Proxy.Jass.File**
public static final	SERVER_PROXY_JAAS_SPN TODO. Value: **Starter.Proxy.Jass.Spn**
public static final	SERVER_PROXY_LOGIN Proxy login. Value: **Starter.Proxy.login**
public static final	SERVER_PROXY_PORT Proxy port number. Value: **Starter.Proxy.port**
public static final	SERVER_PROXY_PWD Proxy password. Value: **Starter.Proxy.pwd**
public static final	SERVER_PROXY_TYPE Type of proxy. Value: **Starter.Proxy.type**
public static final	SMTP_AUTH_PWD SMTP password. Value: **Starter.mail.send.secret**
public static final	SMTP_AUTH_USER SMTP login. Value: **Starter.mail.send.identifier**
public static final	SMTP_PROTOCOL Protocol name. Value: **Starter.mail.send.protocol**
public static final	SMTP_STARTTLS_ENABLE TLS. Value: **Starter.mail.send.tls**
public static final	SMTP_URL SMTP URL. Value: **Starter.mail.send.server**
public static final	THRESHOLD_SPEED_PERCENT Level for which an alert must be send. Value: **Starter.Monitoring.Threshold_speed**

public static final	TOKEN_EXPIRATION_DELAY Set token expiration delay during creation Value: **Starter.Token.Delay**
public static final	TOKEN_EXPIRATION_UNIT Set token expiration unit during creation Value: **Starter.Token.Unit**
public static final	TOKEN_KEY key for token signature encoded with the algorithm HS256 in base64 Value: **Starter.Token.key**
public static final	VERSION Application's version. Value: **Starter.VERSION**

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

APP_NAME

public static final java.lang.String **APP_NAME**

Application's name.
Constant value: **Starter.APP_NAME**

VERSION

public static final java.lang.String **VERSION**

Application's version.
Constant value: **Starter.VERSION**

NAME

public static final java.lang.String **NAME**

Name of the configuration file.
Constant value: **Starter.NAME**

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Application's copyright.
Constant value: **Starter.COPYRIGHT**

CONTEXT_MODE

public static final java.lang.String **CONTEXT_MODE**

Context (DEV, POST_DEV, PRE_PROD, PROD) of the use.

Constant value: `Starter.CONTEXT_MODE`

INIST_DOI

`public static final java.lang.String INIST_DOI`

DOI prefix, which is given by INIST.
Constant value: `Starter.Inist.doi`

INIST_LOGIN

`public static final java.lang.String INIST_LOGIN`

INIST login to use DATACITE's web services. The login is encrypted.
Constant value: `Starter.Inist.login`

INIST_PWD

`public static final java.lang.String INIST_PWD`

INIST password to use DATACITE's web services. The password is encrypted.
Constant value: `Starter.Inist.pwd`

SERVER_HTTP_PORT

`public static final java.lang.String SERVER_HTTP_PORT`

HTTP port number.
Constant value: `Starter.Server.HTTP.Port`

SERVER_HTTPS_SECRET_KEY

`public static final java.lang.String SERVER_HTTPS_SECRET_KEY`

HTTPS password for this application. The password is encrypted.
Constant value: `Starter.Server.HTTPS.SecretKey`

SERVER_HTTPS_PORT

`public static final java.lang.String SERVER_HTTPS_PORT`

HTTPS port number.
Constant value: `Starter.Server.HTTPS.Port`

SERVER_HTTPS_KEYSTORE_PATH

`public static final java.lang.String SERVER_HTTPS_KEYSTORE_PATH`

HTTPS keystore path.
Constant value: `Starter.Server.HTTPS.KeystorePath`

SERVER_HTTPS_KEYSTORE_PASSWD

`public static final java.lang.String SERVER_HTTPS_KEYSTORE_PASSWD`

HTTPS keystore password. The password is encrypted
Constant value: `Starter.Server.HTTPS.keystorePassword`

SERVER_HTTPS_TRUST_STORE_PATH

public static final java.lang.String **SERVER_HTTPS_TRUST_STORE_PATH**

Trust store path.
Constant value: **Starter.Server.HTTPS.TrustStorePath**

SERVER_HTTPS_TRUST_STORE_PASSWD

public static final java.lang.String **SERVER_HTTPS_TRUST_STORE_PASSWD**

Trust store password. The password is encrypted
Constant value: **Starter.Server.HTTPS.TrustStorePassword**

SERVER_PROXY_TYPE

public static final java.lang.String **SERVER_PROXY_TYPE**

Type of proxy. It can be one of the following values NO_PROXY, PROXY_BASIC, PROXY_SPNEGO_API, PROXY_SPNEGO_JAAS.
Constant value: **Starter.Proxy.type**

SERVER_PROXY_HOST

public static final java.lang.String **SERVER_PROXY_HOST**

Proxy host name.
Constant value: **Starter.Proxy.host**

SERVER_PROXY_PORT

public static final java.lang.String **SERVER_PROXY_PORT**

Proxy port number.
Constant value: **Starter.Proxy.port**

SERVER_PROXY_LOGIN

public static final java.lang.String **SERVER_PROXY_LOGIN**

Proxy login.
Constant value: **Starter.Proxy.login**

SERVER_PROXY_PWD

public static final java.lang.String **SERVER_PROXY_PWD**

Proxy password. The password is encrypted
Constant value: **Starter.Proxy.pwd**

SERVER_NONPROXY_HOSTS

public static final java.lang.String **SERVER_NONPROXY_HOSTS**

Set of hostname on which the authentication to the proxy is disabled.
Constant value: **Starter.NoProxy.hosts**

SERVER_PROXY_JAAS_SPN

public static final java.lang.String **SERVER_PROXY_JAAS_SPN**

> TODO.
> Constant value: **Starter.Proxy.Jass.Spn**

SERVER_PROXY_JAAS_FILE

public static final java.lang.String **SERVER_PROXY_JAAS_FILE**

> TODO.
> Constant value: **Starter.Proxy.Jass.File**

SERVER_PROXY_JAAS_CONTEXT

public static final java.lang.String **SERVER_PROXY_JAAS_CONTEXT**

> TODO.
> Constant value: **Starter.Proxy.Jass.Context**

TOKEN_EXPIRATION_DELAY

public static final java.lang.String **TOKEN_EXPIRATION_DELAY**

> Set token expiration delay during creation
> Constant value: **Starter.Token.Delay**

TOKEN_EXPIRATION_UNIT

public static final java.lang.String **TOKEN_EXPIRATION_UNIT**

> Set token expiration unit during creation
> Constant value: **Starter.Token.Unit**

LOG_FORMAT

public static final java.lang.String **LOG_FORMAT**

> LOG format.
> Constant value: **Starter.Server.Log.format**

SERVER_CONTACT_ADMIN

public static final java.lang.String **SERVER_CONTACT_ADMIN**

> Email of the administrator.
> Constant value: **Starter.Server.contactAdmin**

SMTP_PROTOCOL

public static final java.lang.String **SMTP_PROTOCOL**

> Protocol name.
> Constant value: **Starter.mail.send.protocol**

SMTP_URL

public static final java.lang.String **SMTP_URL**

SMTP URL.
Constant value: **Starter.mail.send.server**

SMTP_STARTTLS_ENABLE

public static final java.lang.String **SMTP_STARTTLS_ENABLE**

TLS.
Constant value: **Starter.mail.send.tls**

SMTP_AUTH_USER

public static final java.lang.String **SMTP_AUTH_USER**

SMTP login.
Constant value: **Starter.mail.send.identifier**

SMTP_AUTH_PWD

public static final java.lang.String **SMTP_AUTH_PWD**

SMTP password. The password is encrypted.
Constant value: **Starter.mail.send.secret**

JETTY_MIN_THREADS

public static final java.lang.String **JETTY_MIN_THREADS**

Jetty : Thread pool minimum threads.
Constant value: **Starter.MIN_THREADS**

JETTY_MAX_THREADS

public static final java.lang.String **JETTY_MAX_THREADS**

Jetty : Thread pool max threads.
Constant value: **Starter.MAX_THREADS**

JETTY_THREADS_PRIORITY

public static final java.lang.String **JETTY_THREADS_PRIORITY**

Jetty : Thread pool threads priority.
Constant value: **Starter.THREADS_PRIORITY**

JETTY_THREAD_MAX_IDLE_TIME_MS

public static final java.lang.String **JETTY_THREAD_MAX_IDLE_TIME_MS**

Jetty : Thread pool idle timeout in milliseconds; threads that are idle for longer than this period may be stopped.
Constant value: **Starter.THREAD_MAX_IDLE_TIME_MS**

JETTY_THREAD_STOP_TIME_MS

public static final java.lang.String **JETTY_THREAD_STOP_TIME_MS**

Thread pool stop timeout in milliseconds; the maximum time allowed for the service to shutdown.
Constant value: **Starter.THREAD_MAX_STOP_TIME_MS**

JETTY_LOW_RESOURCES_MAX_IDLE_TIME_MS

`public static final java.lang.String` **`JETTY_LOW_RESOURCES_MAX_IDLE_TIME_MS`**

Time in ms that connections will persist if listener is low on resources.
Constant value: **`Starter.LOW_RESOURCES_MAX_IDLE_TIME_MS`**

JETTY_LOW_RESOURCES_PERIOD

`public static final java.lang.String` **`JETTY_LOW_RESOURCES_PERIOD`**

Low resource monitor period in milliseconds; when 0, low resource monitoring is disabled.
Constant value: **`Starter.LOW_RESOURCES_PERIOD`**

JETTY_LOW_RESOURCES_MAX_MEMORY

`public static final java.lang.String` **`JETTY_LOW_RESOURCES_MAX_MEMORY`**

Low resource monitor max memory in bytes; when 0, the check disabled; memory used is calculated as (totalMemory-freeMemory).
Constant value: **`Starter.LOW_RESOURCES_MAX_MEMORY`**

JETTY_LOW_RESOURCES_MAX_CONNECTIONS

`public static final java.lang.String` **`JETTY_LOW_RESOURCES_MAX_CONNECTIONS`**

Low resource monitor max connections; when 0, the check is disabled.
Constant value: **`Starter.LOW_RESOURCES_MAX_CONNECTIONS`**

JETTY_LOW_RESOURCES_THREADS

`public static final java.lang.String` **`JETTY_LOW_RESOURCES_THREADS`**

Low resource monitor, whether to check if we're low on threads.
Constant value: **`Starter.LOW_RESOURCES_THREADS`**

JETTY_ACCEPTOR_THREADS

`public static final java.lang.String` **`JETTY_ACCEPTOR_THREADS`**

Connector acceptor thread count; when -1, Jetty will default to Runtime.availableProcessors() / 2, with a minimum of 1.
Constant value: **`Starter.ACCEPTOR_THREADS`**

JETTY_SELECTOR_THREADS

`public static final java.lang.String` **`JETTY_SELECTOR_THREADS`**

Connector selector thread count; when -1, Jetty will default to Runtime.availableProcessors().
Constant value: **`Starter.SELECTOR_THREADS`**

JETTY_ACCEPT_QUEUE_SIZE

`public static final java.lang.String` **`JETTY_ACCEPT_QUEUE_SIZE`**

Connector accept queue size; also known as accept backlog.
Constant value: **`Starter.ACCEPT_QUEUE_SIZE`**

JETTY_REQUEST_HEADER_SIZE

`public static final java.lang.String` **`JETTY_REQUEST_HEADER_SIZE`**

HTTP request header size in bytes; larger headers will allow for more and/or larger cookies plus larger form content encoded in a URL; however, larger headers consume more memory and can make a server more vulnerable to denial of service attacks.
Constant value: **`Starter.REQUEST_HEADER_SIZE`**

JETTY_RESPONSE_HEADER_SIZE

`public static final java.lang.String` **`JETTY_RESPONSE_HEADER_SIZE`**

HTTP response header size in bytes; larger headers will allow for more and/or larger cookies and longer HTTP headers (e.g. for redirection); however, larger headers will also consume more memory
Constant value: **`Starter.RESPONSE_HEADER_SIZE`**

JETTY_REQUEST_BUFFER_SIZE

`public static final java.lang.String` **`JETTY_REQUEST_BUFFER_SIZE`**

HTTP header cache size in bytes.
Constant value: **`Starter.REQUEST_BUFFER_SIZE`**

JETTY_RESPONSE_BUFFER_SIZE

`public static final java.lang.String` **`JETTY_RESPONSE_BUFFER_SIZE`**

HTTP output buffer size in bytes; a larger buffer can improve performance by allowing a content producer to run without blocking, however larger buffers consume more memory and may induce some latency before a client starts processing the content.
Constant value: **`Starter.RESPONSE_BUFFER_SIZE`**

JETTY_IO_MAX_IDLE_TIME_MS

`public static final java.lang.String` **`JETTY_IO_MAX_IDLE_TIME_MS`**

Connector idle timeout in milliseconds; see Socket.setSoTimeout(int); this value is interpreted as the maximum time between some progress being made on the connection; so if a single byte is read or written, then the timeout is reset.
Constant value: **`Starter.IO_MAX_IDLE_TIME_MS`**

JETTY_SO_LINGER_TIME

`public static final java.lang.String` **`JETTY_SO_LINGER_TIME`**

Connector TCP/IP SO linger time in milliseconds; when -1 is disabled; see Socket.setSoLinger(boolean, int).
Constant value: **`Starter.SO_LINGER_TIME`**

JETTY_GRACEFUL_SHUTDOWN

`public static final java.lang.String` **`JETTY_GRACEFUL_SHUTDOWN`**

Connector stop timeout in milliseconds; the maximum time allowed for the service to shutdown
Constant value: **`Starter.GRACEFUL_SHUTDOWN`**

TOKEN_KEY

`public static final java.lang.String` **`TOKEN_KEY`**

key for token signature encoded with the algorithm HS256 in base64
Constant value: **`Starter.Token.key`**

PLUGIN_USER_GROUP_MGT

`public static final java.lang.String` **`PLUGIN_USER_GROUP_MGT`**

Plugin to load the list of users and to fill group with users
Constant value: **`Starter.Plugin.UserGroupMgt`**

PLUGIN_PROJECT_SUFFIX

`public static final java.lang.String` **`PLUGIN_PROJECT_SUFFIX`**

Plugin to load the project suffix database.
Constant value: **`Starter.Plugin.ProjectSuffix`**

PLUGIN_TOKEN

`public static final java.lang.String` **`PLUGIN_TOKEN`**

Plugin to load the token database.
Constant value: **`Starter.Plugin.Token`**

PLUGIN_AUTHENTICATION

`public static final java.lang.String` **`PLUGIN_AUTHENTICATION`**

Plugin to load the authentication system.
Constant value: **`Starter.Plugin.Authentication`**

ADMIN_IP_ALLOWER

`public static final java.lang.String` **`ADMIN_IP_ALLOWER`**

Allowed IPs for the administration application.
Constant value: **`Starter.admin.IP.allower`**

THRESHOLD_SPEED_PERCENT

`public static final java.lang.String` **`THRESHOLD_SPEED_PERCENT`**

Level for which an alert must be send.
Constant value: **`Starter.Monitoring.Threshold_speed`**

RESTLET_MAX_TOTAL_CONNECTIONS

`public static final java.lang.String` **`RESTLET_MAX_TOTAL_CONNECTIONS`**

Tunning connection for Restlet.
Constant value: **`Starter.maxTotalConnections`**

RESTLET_MAX_CONNECTIONS_PER_HOST

`public static final java.lang.String` **`RESTLET_MAX_CONNECTIONS_PER_HOST`**

Tunning Connection for Restlet
Constant value: **`Starter.maxConnectionsPerHost`**

DATACITE_SCHEMA

`public static final java.lang.String` **`DATACITE_SCHEMA`**

DataCite schema.
Constant value: **`Starter.dataciteSchema`**

DB_UPDATE_JOB_PERIOD

`public static final java.lang.String` **`DB_UPDATE_JOB_PERIOD`**

Update Database job period
Constant value: **`Starter.updateDatabaseJob.period`**

ATTRIBUTION

`public static final java.lang.String` **`ATTRIBUTION`**

Attributes name in LDAP for fullname.
Constant value: **`Starter.attribution`**

ENCRYPTED_FIELDS

`public static final java.lang.String` **`ENCRYPTED_FIELDS`**

True when login/password are encoded otherwise false.
Constant value: **`Starter.encrypted_fields`**

fr.cnes.doi.settings
Class DoiSettings

```
java.lang.Object
    │
    +-fr.cnes.doi.settings.DoiSettings
```

public final class **DoiSettings**
extends Object

Singleton to load and use the defined variables in the config.properties.
Author:
    Jean-Christophe (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	CONFIG_PROPERTIES Configuration files in JAR. Value: **config.properties**

Method Summary

void	displayConfigFile() Displays the configuration file.
boolean	getBoolean(String key) Returns the value of the key as a boolean.
static DoiSettings	getInstance() Access to unique INSTANCE of Settings
int	getInt(String key) Returns the value of the key as an integer.
int	getInt(String key, String defaultValue) Returns the value of the key as an integer.
Long	getLong(String key) Returns the value of the key as a long.
Long	getLong(String key, String defaultValue) Returns the value of the key as a long.
String	getPathApp() Returns the path of the application on the file system.
String	getSecret(String key) Returns the decoded value of the key.
String	getSecretKey() Returns the secret key.
String	getSecretValue(String value) Returns the decoded value of the value.

String	`getString`(String key)	
	Returns the value of the key or null if no mapping for the key.	
String	`getString`(String key, String defaultValue)	
	Returns the value of the key as string.	
boolean	`hasValue`(String key)	
	Tests if the key has a value.	
void	`setPropertiesFile`(InputStream inputStream)	
	Sets a custom properties file.	
void	`setPropertiesFile`(String path)	
	Sets a custom properties file.	
void	`setSecretKey`(String secretKey)	
	Sets the secret key.	
void	`validConfigurationFile`()	
	Validates the configuration file.	

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

CONFIG_PROPERTIES

`public static final java.lang.String` **`CONFIG_PROPERTIES`**

Configuration files in JAR.
Constant value: **`config.properties`**

Methods

getInstance

`public static` `DoiSettings` **`getInstance`**()

Access to unique INSTANCE of Settings

Returns:
the configuration instance.

validConfigurationFile

`public void` **`validConfigurationFile`**()

Validates the configuration file.

hasValue

`public boolean` **`hasValue`**(String key)

Tests if the key has a value.

Parameters:

key - key to test

Returns:

True when the value inputStream different or null and empty

getSecretKey

public String **getSecretKey**()

Returns the secret key.

Returns:

the secret key.

setSecretKey

public void **setSecretKey**(String secretKey)

Sets the secret key.

Parameters:

secretKey - the secret key.

getString

public String **getString**(String key,
        String defaultValue)

Returns the value of the key as string.

Parameters:

key - key to search
defaultValue - Default value if the key inputStream not found

Returns:

the value of the key

getString

public String **getString**(String key)

Returns the value of the key or null if no mapping for the key. A special processing inputStream done for the key
fr.cnes.doi.settings.Consts#INIST_DOI. When this key inputStream called the value changes in respect of
fr.cnes.doi.settings.Consts#CONTEXT_MODE. When fr.cnes.doi.settings.Consts#CONTEXT_MODE inputStream set to
PRE_PROD, fr.cnes.doi.settings.Consts#INIST_DOI inputStream set to #INIST_TEST_DOI.

Parameters:

key - key to search

Returns:

the value of the key orl null if does not exist

getSecret

public String **getSecret**(String key)

Returns the decoded value of the key. An exception inputStream raised when the key inputStream not encoded on 16bits.

Parameters:
key - key to search

Returns:
the decoded vale

---

getSecretValue

```
public String getSecretValue(String value)
```

Returns the decoded value of the value. An exception inputStream raised when the key inputStream not encoded on 16bits.

Parameters:
value - value to decrypt

Returns:
the decoded vale

---

getInt

```
public int getInt(String key)
```

Returns the value of the key as an integer. NumberFormatException inputStream raisen when the value of the key in not compatible with an integer.

Parameters:
key - key to search

Returns:
the value

Throws:
NumberFormatException - if the string does not contain a parsable integer.

---

getInt

```
public int getInt(String key,
        String defaultValue)
```

Returns the value of the key as an integer. NumberFormatException inputStream raisen when the value of the key in not compatible

Parameters:
key - key to search
defaultValue - default value

Returns:
the value

Throws:
NumberFormatException - if the string does not contain a parsable integer.

---

getBoolean

```
public boolean getBoolean(String key)
```

Returns the value of the key as a boolean. An exception inputStream raisen when the value of the key in not compatible with a boolean

Parameters:
    `key` - key to search

Returns:
    the value

Throws:
    `IllegalArgumentException` - - if key not found

getLong

`public Long `**`getLong`**`(String key)`

Returns the value of the key as a long. NumberFormatException inputStream raisen when the value of the key in not compatible

Parameters:
    `key` - key to search

Returns:
    the value

Throws:
    `NumberFormatException` - - if the string does not contain a parsable long

getLong

`public Long `**`getLong`**`(String key,`
        `String defaultValue)`

Returns the value of the key as a long. NumberFormatException inputStream raisen when the value of the key in not compatible

Parameters:
    `key` - key to search
    `defaultValue` - default value

Returns:
    the value

Throws:
    `NumberFormatException` - - if the string does not contain a parsable long

displayConfigFile

`public void `**`displayConfigFile`**`()`

Displays the configuration file.

setPropertiesFile

`public void `**`setPropertiesFile`**`(String path)`
  `throws IOException`

Sets a custom properties file.

Parameters:

`path` - Path to the properties file

Throws:

`IOException` - - if an error occurred when reading from the input stream.

setPropertiesFile

```
public void setPropertiesFile(InputStream inputStream)
    throws IOException
```

Sets a custom properties file.

Parameters:

`inputStream` - Input stream

Throws:

`java.io.IOException` - - if an error occurred when reading from the input stream.

getPathApp

```
public String getPathApp()
```

Returns the path of the application on the file system.

Returns:

the path of the application on the file system

fr.cnes.doi.settings
Class EmailSettings

```
java.lang.Object
    │
    +-fr.cnes.doi.settings.EmailSettings
```

public final class **EmailSettings**
extends Object

Singleton to load and use Email settings.
Author:
    Jean-Christophe Malapert

Method Summary

String	**getAuthPwd**() Returns the decrypted password.
String	**getAuthUser**() Returns the decrypted login.
String	**getContactAdmin**() Returns the administrator's email.
static EmailSettings	**getInstance**() Access to unique INSTANCE of Settings
String	**getSmtpProtocol**() Returns the protocol.
String	**getSmtpURL**() Returns the protocol URL.
String	**getTlsEnable**() Returns True when TLS is enable otherwise False.
void	**init**() Init singleton.
boolean	**isDebug**() Returns the debug.
boolean	**sendMessage**(String subject, String msg) Sends a message by email.
boolean	**sendMessage**(String subject, String msg, String receiverEmail) Sends a message by email to receiver.
void	**setDebug**(boolean isEnabled) Sets the debug.

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods

getInstance

```
public static EmailSettings getInstance()
```

>   Access to unique INSTANCE of Settings

>   **Returns:**
>   the configuration instance.

init

```
public void init()
```

>   Init singleton.

setDebug

```
public void setDebug(boolean isEnabled)
```

>   Sets the debug.

>   **Parameters:**
>   isEnabled - True if debug is enabled otherwise False

isDebug

```
public boolean isDebug()
```

>   Returns the debug.

>   **Returns:**
>   debug

sendMessage

```
public boolean sendMessage(String subject,
        String msg)
```

>   Sends a message by email.

>   **Parameters:**
>   subject - Email's subject
>   msg - Email's message

>   **Returns:**
>   True when the message is sent

sendMessage

```
public boolean sendMessage(String subject,
        String msg,
        String receiverEmail)
```

>   Sends a message by email to receiver.

Parameters:
    `subject` - Email's subject
    `msg` - Email's message
    `receiverEmail` - receiver

Returns:
    True when the message is sent

getSmtpURL

`public String getSmtpURL()`

Returns the protocol URL.

Returns:
    the URL

getSmtpProtocol

`public String getSmtpProtocol()`

Returns the protocol.

Returns:
    the port

getTlsEnable

`public String getTlsEnable()`

Returns True when TLS is enable otherwise False.

Returns:
    the tlsEnable

getAuthUser

`public String getAuthUser()`

Returns the decrypted login.

Returns:
    the authUser

getAuthPwd

`public String getAuthPwd()`

Returns the decrypted password.

Returns:
    the authPwd

getContactAdmin

`public String getContactAdmin()`

Returns the administrator's email.

Returns:
   the contactAdmin

Returns the administrator's email.

Returns:
   the contactAdmin

fr.cnes.doi.settings
Class JettySettings

```
java.lang.Object
    |
    +-org.restlet.engine.Helper
        |
        +-org.restlet.engine.RestletHelper
            |
            +-org.restlet.engine.connector.ConnectorHelper
                |
                +-org.restlet.engine.connector.ServerHelper
                    |
                    +-org.restlet.engine.adapter.HttpServerHelper
                        |
                        +-org.restlet.ext.jetty.JettyServerHelper
                            |
                            +-fr.cnes.doi.settings.JettySettings
```

public final class **JettySettings**
extends org.restlet.ext.jetty.JettyServerHelper

Fills Jetty configuration file based on DoiSettings and registers it in Jetty.
Author:
      Jean-Christophe Malapert

Constructor Summary

public	**JettySettings**(org.restlet.Server server, DoiSettings settings) Constructs settings for Jetty.

Method Summary

void	addParamsToServerContext() addParamsToServerContext.
int	getConnectorAcceptors() Connector acceptor thread count.
int	getConnectorAcceptQueueSize() Connector accept queue size.
int	getConnectorIdleTimeout() Connector idle timeout in milliseconds.
int	getConnectorSelectors() Connector selector thread count.
int	getConnectorSoLingerTime() Connector TCP/IP SO linger time in milliseconds.
int	getConnectorStopTimeout() Connector stop timeout in milliseconds.
int	getHttpHeaderCacheSize() HTTP header cache size in bytes.

int	**getHttpOutputBufferSize**()	
	HTTP output buffer size in bytes.	
int	**getHttpRequestHeaderSize**()	
	HTTP request header size in bytes.	
int	**getHttpResponseHeaderSize**()	
	HTTP response header size in bytes.	
int	**getLowResourceMonitorIdleTimeout**()	
	Low resource monitor idle timeout in milliseconds.	
int	**getLowResourceMonitorMaxConnections**()	
	Low resource monitor max connections.	
long	**getLowResourceMonitorMaxMemory**()	
	Low resource monitor max memory in bytes.	
int	**getLowResourceMonitorPeriod**()	
	Low resource monitor period in milliseconds.	
long	**getLowResourceMonitorStopTimeout**()	
	Low resource monitor stop timeout in milliseconds.	
boolean	**getLowResourceMonitorThreads**()	
	Low resource monitor, whether to check if we're low on threads.	
int	**getThreadPoolIdleTimeout**()	
	Thread pool idle timeout in milliseconds.	
int	**getThreadPoolMaxThreads**()	
	Thread pool maximum threads.	
int	**getThreadPoolMinThreads**()	
	Thread pool minimum threads.	
long	**getThreadPoolStopTimeout**()	
	Thread pool stop timeout in milliseconds.	
int	**getThreadPoolThreadsPriority**()	
	Thread pool threads priority.	

Methods inherited from class `org.restlet.ext.jetty.JettyServerHelper`

```
createConnectionFactories, getConnectorAcceptors, getConnectorAcceptQueueSize,
getConnectorByteBufferPool, getConnectorExecutor, getConnectorIdleTimeout,
getConnectorScheduler, getConnectorSelectors, getConnectorSoLingerTime,
getConnectorStopTimeout, getHttpHeaderCacheSize, getHttpOutputBufferSize,
getHttpRequestHeaderSize, getHttpResponseHeaderSize,
getLowResourceMonitorIdleTimeout, getLowResourceMonitorMaxConnections,
getLowResourceMonitorMaxMemory, getLowResourceMonitorPeriod,
getLowResourceMonitorStopTimeout, getLowResourceMonitorThreads, getSpdyPushStrategy,
getSpdyVersion, getThreadPoolIdleTimeout, getThreadPoolMaxThreads,
getThreadPoolMinThreads, getThreadPoolStopTimeout, getThreadPoolThreadsPriority,
getWrappedServer, setWrappedServer, start, stop
```

Methods inherited from class `org.restlet.engine.adapter.HttpServerHelper`

```
getAdapter, handle, setAdapter
```

Methods inherited from class `org.restlet.engine.connector.ServerHelper`

handle, setEphemeralPort, setEphemeralPort, stop

Methods inherited from class `org.restlet.engine.connector.ConnectorHelper`

getConnectorService, getContext, getProtocols, start, stop, update

Methods inherited from class `org.restlet.engine.RestletHelper`

getAttributes, getContext, getHelped, getHelpedParameters, getLogger, getMetadataService, handle, setHelped, start, stop, update

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

JettySettings

```
public JettySettings(org.restlet.Server server,
                     DoiSettings settings)
```

Constructs settings for Jetty.

Parameters:
  `server` - Jetty server
  `settings` - DOI settings

Methods

getHttpRequestHeaderSize

```
public int getHttpRequestHeaderSize()
```

HTTP request header size in bytes. Defaults to 8*1024. Larger headers will allow for more and/or larger cookies plus larger form content encoded in a URL. However, larger headers consume more memory and can make a server more vulnerable to denial of service attacks.

Returns:
  HTTP request header size.

getHttpResponseHeaderSize

```
public int getHttpResponseHeaderSize()
```

HTTP response header size in bytes. Defaults to 8*1024. Larger headers will allow for more and/or larger cookies and longer HTTP headers (e.g. for redirection). However, larger headers will also consume more memory.

Returns:
  HTTP response header size.

getThreadPoolMinThreads

`public int getThreadPoolMinThreads()`

Thread pool minimum threads. Defaults to 8.

Returns:

Thread pool minimum threads.

getThreadPoolMaxThreads

`public int getThreadPoolMaxThreads()`

Thread pool maximum threads. Defaults to 200.

Returns:

Thread pool maximum threads.

getThreadPoolThreadsPriority

`public int getThreadPoolThreadsPriority()`

Thread pool threads priority. Defaults to Thread.NORM_PRIORITY.

Returns:

Thread pool maximum threads.

getThreadPoolIdleTimeout

`public int getThreadPoolIdleTimeout()`

Thread pool idle timeout in milliseconds. Defaults to 60000. Threads that are idle for longer than this period may be stopped.

Returns:

Thread pool idle timeout.

getThreadPoolStopTimeout

`public long getThreadPoolStopTimeout()`

Thread pool stop timeout in milliseconds. Defaults to 5000. The maximum time allowed for the service to shutdown.

Returns:

Thread pool stop timeout.

getConnectorAcceptors

`public int getConnectorAcceptors()`

Connector acceptor thread count. Defaults to -1. When -1, Jetty will default to Runtime.availableProcessors() / 2, with a minimum of 1.

Returns:

Connector acceptor thread count.

getConnectorSelectors

public int **getConnectorSelectors**()

Connector selector thread count. Defaults to -1. When 0, Jetty will default to Runtime.availableProcessors().

Returns:
Connector acceptor thread count.

getLowResourceMonitorIdleTimeout

public int **getLowResourceMonitorIdleTimeout**()

Low resource monitor idle timeout in milliseconds. Defaults to 1000. Applied to EndPoints when in the low resources state.

Returns:
Low resource monitor idle timeout.

getLowResourceMonitorPeriod

public int **getLowResourceMonitorPeriod**()

Low resource monitor period in milliseconds. Defaults to 1000. When 0, low resource monitoring is disabled.

Returns:
Low resource monitor period.

getLowResourceMonitorMaxMemory

public long **getLowResourceMonitorMaxMemory**()

Low resource monitor max memory in bytes. Defaults to 0. When 0, the check disabled. Memory used is calculated as (totalMemory-freeMemory).

Returns:
Low resource monitor max memory.

getLowResourceMonitorMaxConnections

public int **getLowResourceMonitorMaxConnections**()

Low resource monitor max connections. Defaults to 0. When 0, the check is disabled.

Returns:
Low resource monitor max connections.

getLowResourceMonitorThreads

public boolean **getLowResourceMonitorThreads**()

Low resource monitor, whether to check if we're low on threads. Defaults to true.

Returns:
Low resource monitor threads.

getConnectorAcceptQueueSize

`public int ` **`getConnectorAcceptQueueSize`**`()`

Connector accept queue size. Defaults to 0. Also known as accept backlog.

Returns:
Connector accept queue size.

getConnectorSoLingerTime

`public int ` **`getConnectorSoLingerTime`**`()`

Connector TCP/IP SO linger time in milliseconds. Defaults to -1 (disabled).

Returns:
Connector TCP/IP SO linger time.

getConnectorIdleTimeout

`public int ` **`getConnectorIdleTimeout`**`()`

Connector idle timeout in milliseconds. Defaults to 30000. This value is interpreted as the maximum time between some progress being made on the connection. So if a single byte is read or written, then the timeout is reset.

Returns:
Connector idle timeout.

getHttpOutputBufferSize

`public int ` **`getHttpOutputBufferSize`**`()`

HTTP output buffer size in bytes. Defaults to 32*1024. A larger buffer can improve performance by allowing a content producer to run without blocking, however larger buffers consume more memory and may induce some latency before a client starts processing the content.

Returns:
HTTP output buffer size.

getHttpHeaderCacheSize

`public int ` **`getHttpHeaderCacheSize`**`()`

HTTP header cache size in bytes. Defaults to 512.

Returns:
HTTP header cache size.

getConnectorStopTimeout

`public int ` **`getConnectorStopTimeout`**`()`

Connector stop timeout in milliseconds. Defaults to 30000. The maximum time allowed for the service to shutdown.

Returns:
Connector stop timeout.

getLowResourceMonitorStopTimeout

```
public long getLowResourceMonitorStopTimeout()
```

Low resource monitor stop timeout in milliseconds. Defaults to 30000. The maximum time allowed for the service to shutdown.

Returns:
Low resource monitor stop timeout.

addParamsToServerContext

```
public void addParamsToServerContext()
```

addParamsToServerContext.

---

getLowResourceMonitorStopTimeout

```
public long getLowResourceMonitorStopTimeout()
```

fr.cnes.doi.settings
Class ProxySettings

```
java.lang.Object
    │
    +-fr.cnes.doi.settings.ProxySettings
```

public final class **ProxySettings**
extends Object

Sets the proxy parameter based on DoiSettings.
Author:
  Jean-Christophe Malapert

Method Summary

void	[configureProxy]() Configure the proxy.
static [ProxySettings]	[getInstance]() Access to unique INSTANCE of Settings
String	[getNonProxyHosts]() Gets the nonproxyHosts value
String	[getProxyHost]() Gets the proxyHost value
String	[getProxyPassword]() Gets the proxyPassword value
String	[getProxyPort]() Gets the proxyPort value
String	[getProxyType]() Returns get type of proxy
String	[getProxyUser]() Gets the proxyUser value
void	[init]() Init the proxy setting
boolean	[isAuthenticate]() Returns true when the proxy needs an authentication otherwise false.
boolean	[isWithProxy]() Gets the withProxy value

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

(continued from last page)

Methods

getInstance

```
public static ProxySettings getInstance()
```

   Access to unique INSTANCE of Settings

   Returns:
      the configuration instance.

---

init

```
public void init()
```

   Init the proxy setting

---

isWithProxy

```
public boolean isWithProxy()
```

   Gets the withProxy value

   Returns:
      the withProxy

---

isAuthenticate

```
public boolean isAuthenticate()
```

   Returns true when the proxy needs an authentication otherwise false.

   Returns:
      true when the proxy needs an authentication otherwise false.

---

getProxyHost

```
public String getProxyHost()
```

   Gets the proxyHost value

   Returns:
      the proxyHost

---

getProxyPort

```
public String getProxyPort()
```

   Gets the proxyPort value

   Returns:
      the proxyPort

---

getProxyUser

```
public String getProxyUser()
```

   Gets the proxyUser value

Returns:
 the proxyUser

getProxyPassword

```
public String getProxyPassword()
```

Gets the proxyPassword value

Returns:
 the proxyPassword

getNonProxyHosts

```
public String getNonProxyHosts()
```

Gets the nonproxyHosts value

Returns:
 the nonproxyHosts

getProxyType

```
public String getProxyType()
```

Returns get type of proxy

Returns:
 the proxy type

configureProxy

```
public void configureProxy()
```

Configure the proxy.

Package
fr.cnes.doi.utils

Provides utility class.

fr.cnes.doi.utils
Class DOIProperties

```
java.lang.Object
    │
    +-java.util.Dictionary
        │
        +-java.util.Hashtable
            │
            +-java.util.Properties
                │
                +-fr.cnes.doi.utils.DOIProperties
```

All Implemented Interfaces:
> Serializable，Cloneable，Map

---

public class **DOIProperties**
extends Properties

DOI properties. DOI properties trims the value
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Fields inherited from class java.util.Properties
defaults

Constructor Summary

public	[DOIProperties](#)()

Method Summary

String	[getProperty](#)(String string)
String	[getProperty](#)(String string, String string1)

Methods inherited from class java.util.Properties
getProperty, getProperty, list, list, load, load, loadFromXML, propertyNames, save, setProperty, store, store, storeToXML, storeToXML, stringPropertyNames

Methods inherited from class java.util.Hashtable
clear, clone, compute, computeIfAbsent, computeIfPresent, contains, containsKey, containsValue, elements, entrySet, equals, forEach, get, getOrDefault, hashCode, isEmpty, keys, keySet, merge, put, putAll, putIfAbsent, rehash, remove, remove, replace, replace, replaceAll, size, toString, values

Methods inherited from class java.util.Dictionary
elements, get, isEmpty, keys, put, remove, size

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.util.Map`

```
clear, compute, computeIfAbsent, computeIfPresent, containsKey, containsValue,
entrySet, equals, forEach, get, getOrDefault, hashCode, isEmpty, keySet, merge, put,
putAll, putIfAbsent, remove, remove, replace, replace, replaceAll, size, values
```

Constructors

DOIProperties

public **DOIProperties**()

Methods

getProperty

public String **getProperty**(String string)

getProperty

public String **getProperty**(String string,
        String string1)

fr.cnes.doi.utils
Class UniqueProjectName

```
java.lang.Object
    │
    +-fr.cnes.doi.utils.UniqueProjectName
```

public final class **UniqueProjectName**
extends Object

Utils class to generate a unique number from the project name

Method Summary

static UniqueProjectName	getInstance() Access to unique INSTANCE of Settings
List	getProjects() Returns the projects from the database.
List	getProjectsFromUser(String userName) Returns the projects associated to an user from the database.
int	getShortName(String project, int length) Build a unique String from the project name

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods

getInstance

public static UniqueProjectName **getInstance**()

Access to unique INSTANCE of Settings

Returns:
the configuration instance.

getProjects

public List **getProjects**()
  throws DOIDbException

Returns the projects from the database.

Returns:
the projects

Throws:

fr.cnes.doi.exception.DOIDbException - When a problem occurs

getProjectsFromUser

```
public List getProjectsFromUser(String userName)
  throws DOIDbException
```

Returns the projects associated to an user from the database.

Parameters:
userName - user name

Returns:
the projects

Throws:
fr.cnes.doi.exception.DOIDbException - When a problem occurs

getShortName

```
public int getShortName(String project,
        int length)
  throws DOIDbException
```

Build a unique String from the project name

Parameters:
project - the project name
length - length of the short name to generate (the short name must be an int to the length cannot be up to 9)

Returns:
the unique string

Throws:
fr.cnes.doi.exception.DOIDbException - When a problem occurs

fr.cnes.doi.utils
Class Utils

```
java.lang.Object
    │
    +-fr.cnes.doi.utils.Utils
```

public final class **Utils**
extends Object

Utility Class.
Author:
    Jean-Christophe Malapert, Claire

Field Summary

public static final	**APP_LOGGER_NAME** Name of the logger to measure performances #APP_LOGGER_NAME. Value: **fr.cnes.doi.logging.app**
public static final	**EMPTY_OBJECT_ARRAY** An empty immutable Object array.
public static final	**HTTP_LOGGER_NAME** Name of the logger for http requests and answers #HTTP_LOGGER_NAME. Value: **fr.cnes.doi.logging.api**
public static final	**SECURITY_LOGGER_NAME** Name of the logger to measure performances #SECURITY_LOGGER_NAME. Value: **fr.cnes.doi.logging.security**
public static final	**SHELL_LOGGER_NAME** Name of the logger in console without date. Value: **fr.cnes.doi.logging.shell**

Method Summary

static Set	**getKeysByValue**(Map map, Object value) Returns the keys related to a value within a map.
static int	**getLength**(Object array) Returns the length of the specified array.
static boolean	**isEmpty**(CharSequence charSeq) Checks whether the char sequence is empty.
static boolean	**isEmpty**(Object[] array) Checks if an array of Objects is empty or null.
static boolean	**isNotEmpty**(CharSequence charSeq) Checks whether the char sequence is not empty.
static Object[]	**nullToEmpty**(Object[] array) Defensive programming technique to change a null reference to an empty one.

static Object[]	[nullToEmpty](Object[] array, Class type) Defensive programming technique to change a null reference to an empty one.
static String	[transformPasswordToStars](String password) Transform password to stars

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

EMPTY_OBJECT_ARRAY

`public static final java.lang.Object` **EMPTY_OBJECT_ARRAY**

An empty immutable Object array.

SHELL_LOGGER_NAME

`public static final java.lang.String` **SHELL_LOGGER_NAME**

Name of the logger in console without date.
Constant value: **fr.cnes.doi.logging.shell**

HTTP_LOGGER_NAME

`public static final java.lang.String` **HTTP_LOGGER_NAME**

Name of the logger for http requests and answers #HTTP_LOGGER_NAME.
Constant value: **fr.cnes.doi.logging.api**

APP_LOGGER_NAME

`public static final java.lang.String` **APP_LOGGER_NAME**

Name of the logger to measure performances #APP_LOGGER_NAME.
Constant value: **fr.cnes.doi.logging.app**

SECURITY_LOGGER_NAME

`public static final java.lang.String` **SECURITY_LOGGER_NAME**

Name of the logger to measure performances #SECURITY_LOGGER_NAME.
Constant value: **fr.cnes.doi.logging.security**

Methods

isEmpty

`public static boolean` **isEmpty**`(CharSequence charSeq)`

Checks whether the char sequence is empty.

Parameters:

charSeq - the char sequence

Returns:
True when the char sequence is empty otherwise False

isNotEmpty

```
public static boolean isNotEmpty(CharSequence charSeq)
```

Checks whether the char sequence is not empty.

Parameters:
charSeq - the char sequence

Returns:
True when the char sequence is not empty otherwise False

getKeysByValue

```
public static Set getKeysByValue(Map map,
        Object value)
```

Returns the keys related to a value within a map.

Parameters:
map - map
value - value to search

Returns:
the keys related to a value

nullToEmpty

```
public static Object[] nullToEmpty(Object[] array,
        Class type)
  throws IllegalArgumentException
```

Defensive programming technique to change a null reference to an empty one.

This method returns an empty array for a null input array.

Parameters:
array - the array to check for null or empty
type - the class representation of the desired array

Returns:
the same array, public static empty array if null

Throws:
IllegalArgumentException - if the type argument is null

nullToEmpty

```
public static Object[] nullToEmpty(Object[] array)
```

Defensive programming technique to change a null reference to an empty one.

This method returns an empty array for a null input array.

As a memory optimizing technique an empty array passed in will be overridden with the empty public static references in this class.

Parameters:
>   array - the array to check for null or empty

Returns:
>   the same array, public static empty array if null or empty input

isEmpty

```
public static boolean isEmpty(Object[] array)
```

Checks if an array of Objects is empty or null.

Parameters:
>   array - the array to test

Returns:
>   true if the array is empty or null

getLength

```
public static int getLength(Object array)
  throws IllegalArgumentException
```

Returns the length of the specified array. This method can deal with Object arrays and with primitive arrays.

If the input array is null, 0 is returned.

```
   Utils.getLength(null)            = 0
   Utils.getLength([])              = 0
   Utils.getLength([null])          = 1
   Utils.getLength([true, false])   = 2
   Utils.getLength([1, 2, 3])       = 3
   Utils.getLength(["a", "b", "c"]) = 3
```

Parameters:
>   array - the array to retrieve the length from, may be null

Returns:
>   The length of the array, or 0 if the array is null

Throws:
>   IllegalArgumentException - if the object argument is not an array.

transformPasswordToStars

```
public static String transformPasswordToStars(String password)
```

Transform password to stars

Parameters:
    password - password to transform

Returns:
    stars

```
public static String transformPasswordToStars(String password)
```

Package
fr.cnes.doi.utils.spec

fr.cnes.doi.utils.spec
Class CoverageAnnotation

```
java.lang.Object
    │
    +-java.lang.Enum
        │
        +-fr.cnes.doi.utils.spec.CoverageAnnotation
```

All Implemented Interfaces:
> Serializable, Comparable

---

public final class **CoverageAnnotation**
extends Enum

Requirement coverage.
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	COMPLETE
public static final	NONE
public static final	PARTIAL

Method Summary

static CoverageAnnotation	valueOf(String name)
static CoverageAnnotation[]	values()

Methods inherited from class `java.lang.Enum`

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Fields

COMPLETE

```
public static final fr.cnes.doi.utils.spec.CoverageAnnotation COMPLETE
```

PARTIAL

```
public static final fr.cnes.doi.utils.spec.CoverageAnnotation PARTIAL
```

NONE

```
public static final fr.cnes.doi.utils.spec.CoverageAnnotation NONE
```

Methods

values

```
public static CoverageAnnotation[] values()
```

valueOf

```
public static CoverageAnnotation valueOf(String name)
```

fr.cnes.doi.utils.spec
Interface Requirement

public interface **Requirement**
extends Annotation

Annotation to map requirements with code
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Field Summary

public static final	DOI_ARCHI_010 Value: **DOI_ARCHI_010**
public static final	DOI_ARCHI_010_NAME Value: **Protocole HTTP et HTTPS pour les API**
public static final	DOI_ARCHI_020 Value: **DOI_ARCHI_020**
public static final	DOI_ARCHI_020_NAME Value: **Logs**
public static final	DOI_ARCHI_030 Value: **DOI_ARCHI_030**
public static final	DOI_ARCHI_030_NAME Value: **Plugins**
public static final	DOI_ARCHI_040 Value: **DOI_ARCHI_040**
public static final	DOI_ARCHI_040_NAME Value: **Chargement des plugins**
public static final	DOI_AUTH_010 Value: **DOI_AUTH_010**
public static final	DOI_AUTH_010_NAME Value: **Authentification par login/mot de passe**
public static final	DOI_AUTH_020 Value: **DOI_AUTH_020**
public static final	DOI_AUTH_020_NAME Value: **Authentification par token**

public static final	DOI_AUTH_030	
	Value: **DOI_AUTH_030**	
public static final	DOI_AUTH_030_NAME	
	Value: **Authentification IHM**	
public static final	DOI_AUTO_010	
	Value: **DOI_AUTO_010**	
public static final	DOI_AUTO_010_NAME	
	Value: **Association des projets**	
public static final	DOI_AUTO_020	
	Value: **DOI_AUTO_020**	
public static final	DOI_AUTO_020_NAME	
	Value: **Sélection du rôle**	
public static final	DOI_AUTO_030	
	Value: **DOI_AUTO_030**	
public static final	DOI_AUTO_030_NAME	
	Value: **Vérification du projet**	
public static final	DOI_CONFIG_010	
	Value: **DOI_CONFIG_010**	
public static final	DOI_CONFIG_010_NAME	
	Value: **Configuration du serveur central**	
public static final	DOI_CONFIG_020	
	Value: **DOI_CONFIG_020**	
public static final	DOI_CONFIG_020_NAME	
	Value: **Evolutivité du schéma de métadonnées**	
public static final	DOI_DEPL_010	
	Value: **DOI_DEPL_010**	
public static final	DOI_DEPL_010_NAME	
	Value: **Déploiement du serveur central**	
public static final	DOI_DEV_010	
	Value: **DOI_DEV_010**	
public static final	DOI_DEV_010_NAME	
	Value: **Développement en Java avec Maven**	

public static final	DOI_DEV_020	
	Value: **DOI_DEV_020**	
public static final	DOI_DEV_020_NAME	
	Value: **OpenSource**	
public static final	DOI_DISPO_010	
	Value: **DOI_DISPO_010**	
public static final	DOI_DISPO_010_NAME	
	Value: **Taux de disponibilité**	
public static final	DOI_DISPO_020	
	Value: **DOI_DISPO_020**	
public static final	DOI_DISPO_020_NAME	
	Value: **Vérification des landing pages**	
public static final	DOI_DOC_010	
	Value: **DOI_DOC_010**	
public static final	DOI_DOC_010_NAME	
	Value: **Documentation des interfaces**	
public static final	DOI_IHM_010	
	Value: **DOI_IHM_010**	
public static final	DOI_IHM_010_NAME	
	Value: **IHM Web**	
public static final	DOI_IHM_020	
	Value: **DOI_IHM_020**	
public static final	DOI_IHM_020_NAME	
	Value: **IHM de création d'un DOI**	
public static final	DOI_IHM_030	
	Value: **DOI_IHM_030**	
public static final	DOI_IHM_030_NAME	
	Value: **IHM de génération de métadonnées**	
public static final	DOI_IHM_040	
	Value: **DOI_IHM_040**	
public static final	DOI_IHM_040_NAME	
	Value: **IHM par service REST**	

public static final	DOI_IHM_050	
	Value: **DOI_IHM_050**	
public static final	DOI_IHM_050_NAME	
	Value: **IHM d'admin**	
public static final	DOI_INTER_010	
	Value: **DOI_INTER_010**	
public static final	DOI_INTER_010_NAME	
	Value: **Interface avec Datacite Metadata Store**	
public static final	DOI_INTER_020	
	Value: **DOI_INTER_020**	
public static final	DOI_INTER_020_NAME	
	Value: **Interface avec CrossCite Citation**	
public static final	DOI_INTER_030	
	Value: **DOI_INTER_030**	
public static final	DOI_INTER_030_NAME	
	Value: **Interface avec la base de données de gestion des suffixes DOI**	
public static final	DOI_INTER_040	
	Value: **DOI_INTER_040**	
public static final	DOI_INTER_040_NAME	
	Value: **Interface avec la base de données de gestion des tokens**	
public static final	DOI_INTER_050	
	Value: **DOI_INTER_050**	
public static final	DOI_INTER_050_NAME	
	Value: **Interface avec la base de données de gestion des utilisateurs**	
public static final	DOI_INTER_060	
	Value: **DOI_INTER_060**	
public static final	DOI_INTER_060_NAME	
	Value: **Vérification du schéma de métadonnées**	
public static final	DOI_INTER_070	
	Value: **DOI_INTER_070**	
public static final	DOI_INTER_070_NAME	
	Value: **Vérification des entrées fournies pour DataCite**	

public static final	DOI_LIBCLI_010	
	Value: **DOI_LIBCLI_010**	
public static final	DOI_LIBCLI_010_NAME	
	Value: **Template de landing page**	
public static final	DOI_LIBCLI_020	
	Value: **DOI_LIBCLI_020**	
public static final	DOI_LIBCLI_020_NAME	
	Value: **Librairies clientes en Java et Python**	
public static final	DOI_MONIT_010	
	Value: **DOI_MONIT_010**	
public static final	DOI_MONIT_010_NAME	
	Value: **Monitoring des temps de réponse**	
public static final	DOI_MONIT_020	
	Value: **DOI_MONIT_020**	
public static final	DOI_MONIT_020_NAME	
	Value: **Monitoring de l'état de DataCite**	
public static final	DOI_PERF_010	
	Value: **DOI_PERF_010**	
public static final	DOI_PERF_010_NAME	
	Value: **Nombre de projets**	
public static final	DOI_PERF_020	
	Value: **DOI_PERF_020**	
public static final	DOI_PERF_020_NAME	
	Value: **Temps de création d'un DOI**	
public static final	DOI_PERF_030	
	Value: **DOI_PERF_030**	
public static final	DOI_PERF_030_NAME	
	Value: **Création de DOI en parallèle**	
public static final	DOI_SRV_010	
	Value: **DOI_SRV_010**	
public static final	DOI_SRV_010_NAME	
	Value: **Création de métadonnées**	

public static final	DOI_SRV_020
	Value: **DOI_SRV_020**
public static final	DOI_SRV_020_NAME
	Value: **Enregistrement d'un DOI**
public static final	DOI_SRV_030
	Value: **DOI_SRV_030**
public static final	DOI_SRV_030_NAME
	Value: **Mise à jour de l'URL de la landing page d'un DOI**
public static final	DOI_SRV_040
	Value: **DOI_SRV_040**
public static final	DOI_SRV_040_NAME
	Value: **Mise à jour des métadonnées d'un DOI**
public static final	DOI_SRV_050
	Value: **DOI_SRV_050**
public static final	DOI_SRV_050_NAME
	Value: **Désactivation d'un DOI**
public static final	DOI_SRV_060
	Value: **DOI_SRV_060**
public static final	DOI_SRV_060_NAME
	Value: **Récupération des métadonnées**
public static final	DOI_SRV_070
	Value: **DOI_SRV_070**
public static final	DOI_SRV_070_NAME
	Value: **Récupération de l'URL de la landing page**
public static final	DOI_SRV_080
	Value: **DOI_SRV_080**
public static final	DOI_SRV_080_NAME
	Value: **Création d'un média**
public static final	DOI_SRV_090
	Value: **DOI_SRV_090**
public static final	DOI_SRV_090_NAME
	Value: **Récupération des médias**

public static final	DOI_SRV_100
	Value: **DOI_SRV_100**

public static final	DOI_SRV_100_NAME
	Value: **Listing des styles**

public static final	DOI_SRV_110
	Value: **DOI_SRV_110**

public static final	DOI_SRV_110_NAME
	Value: **Listing des langues**

public static final	DOI_SRV_120
	Value: **DOI_SRV_120**

public static final	DOI_SRV_120_NAME
	Value: **Formatage d'une citation**

public static final	DOI_SRV_130
	Value: **DOI_SRV_130**

public static final	DOI_SRV_130_NAME
	Value: **Création d'un suffixe projet**

public static final	DOI_SRV_140
	Value: **DOI_SRV_140**

public static final	DOI_SRV_140_NAME
	Value: **Récupération du nom du projet à partir du suffixe projet**

public static final	DOI_SRV_150
	Value: **DOI_SRV_150**

public static final	DOI_SRV_150_NAME
	Value: **Création d'un token**

public static final	DOI_SRV_180
	Value: **DOI_SRV_180**

public static final	DOI_SRV_180_NAME
	Value: **Information sur le token**

public static final	DOI_SRV_190
	Value: **DOI_SRV_190**

public static final	DOI_SRV_190_NAME
	Value: **Visualisation des informations d'un DOI**

Method Summary

String	comment()	
CoverageAnnotation	coverage()	
String	documentName()	
String	reqId()	
String	reqName()	
String	version()	

Methods inherited from interface java.lang.annotation.Annotation
annotationType, equals, hashCode, toString

Fields

DOI_SRV_010

public static final java.lang.String **DOI_SRV_010**

     Constant value: **DOI_SRV_010**

DOI_SRV_010_NAME

public static final java.lang.String **DOI_SRV_010_NAME**

     Constant value: **Création de métadonnées**

DOI_SRV_020

public static final java.lang.String **DOI_SRV_020**

     Constant value: **DOI_SRV_020**

DOI_SRV_020_NAME

public static final java.lang.String **DOI_SRV_020_NAME**

     Constant value: **Enregistrement d'un DOI**

DOI_SRV_030

public static final java.lang.String **DOI_SRV_030**

     Constant value: **DOI_SRV_030**

DOI_SRV_030_NAME

public static final java.lang.String **DOI_SRV_030_NAME**

Constant value: **Mise à jour de l'URL de la landing page d'un DOI**

DOI_SRV_040

public static final java.lang.String **DOI_SRV_040**

Constant value: **DOI_SRV_040**

DOI_SRV_040_NAME

public static final java.lang.String **DOI_SRV_040_NAME**

Constant value: **Mise à jour des métadonnées d'un DOI**

DOI_SRV_050

public static final java.lang.String **DOI_SRV_050**

Constant value: **DOI_SRV_050**

DOI_SRV_050_NAME

public static final java.lang.String **DOI_SRV_050_NAME**

Constant value: **Désactivation d'un DOI**

DOI_SRV_060

public static final java.lang.String **DOI_SRV_060**

Constant value: **DOI_SRV_060**

DOI_SRV_060_NAME

public static final java.lang.String **DOI_SRV_060_NAME**

Constant value: **Récupération des métadonnées**

DOI_SRV_070

public static final java.lang.String **DOI_SRV_070**

Constant value: **DOI_SRV_070**

DOI_SRV_070_NAME

public static final java.lang.String **DOI_SRV_070_NAME**

Constant value: **Récupération de l'URL de la landing page**

DOI_SRV_080

public static final java.lang.String **DOI_SRV_080**

Constant value: **DOI_SRV_080**

DOI_SRV_080_NAME

public static final java.lang.String **DOI_SRV_080_NAME**

Constant value: **Création d'un média**

DOI_SRV_090

public static final java.lang.String **DOI_SRV_090**

Constant value: **DOI_SRV_090**

DOI_SRV_090_NAME

public static final java.lang.String **DOI_SRV_090_NAME**

Constant value: **Récupération des médias**

DOI_SRV_100

public static final java.lang.String **DOI_SRV_100**

Constant value: **DOI_SRV_100**

DOI_SRV_100_NAME

public static final java.lang.String **DOI_SRV_100_NAME**

Constant value: **Listing des styles**

DOI_SRV_110

public static final java.lang.String **DOI_SRV_110**

Constant value: **DOI_SRV_110**

DOI_SRV_110_NAME

public static final java.lang.String **DOI_SRV_110_NAME**

Constant value: `Listing des langues`

DOI_SRV_120

`public static final java.lang.String DOI_SRV_120`

Constant value: `DOI_SRV_120`

DOI_SRV_120_NAME

`public static final java.lang.String DOI_SRV_120_NAME`

Constant value: `Formatage d'une citation`

DOI_SRV_130

`public static final java.lang.String DOI_SRV_130`

Constant value: `DOI_SRV_130`

DOI_SRV_130_NAME

`public static final java.lang.String DOI_SRV_130_NAME`

Constant value: `Création d'un suffixe projet`

DOI_SRV_140

`public static final java.lang.String DOI_SRV_140`

Constant value: `DOI_SRV_140`

DOI_SRV_140_NAME

`public static final java.lang.String DOI_SRV_140_NAME`

Constant value: `Récupération du nom du projet à partir du suffixe projet`

DOI_SRV_150

`public static final java.lang.String DOI_SRV_150`

Constant value: `DOI_SRV_150`

DOI_SRV_150_NAME

`public static final java.lang.String DOI_SRV_150_NAME`

Constant value: `Création d'un token`

DOI_SRV_180

public static final java.lang.String **DOI_SRV_180**

Constant value: **DOI_SRV_180**

DOI_SRV_180_NAME

public static final java.lang.String **DOI_SRV_180_NAME**

Constant value: **Information sur le token**

DOI_SRV_190

public static final java.lang.String **DOI_SRV_190**

Constant value: **DOI_SRV_190**

DOI_SRV_190_NAME

public static final java.lang.String **DOI_SRV_190_NAME**

Constant value: **Visualisation des informations d'un DOI**

DOI_MONIT_010

public static final java.lang.String **DOI_MONIT_010**

Constant value: **DOI_MONIT_010**

DOI_MONIT_010_NAME

public static final java.lang.String **DOI_MONIT_010_NAME**

Constant value: **Monitoring des temps de réponse**

DOI_MONIT_020

public static final java.lang.String **DOI_MONIT_020**

Constant value: **DOI_MONIT_020**

DOI_MONIT_020_NAME

public static final java.lang.String **DOI_MONIT_020_NAME**

Constant value: **Monitoring de l'état de DataCite**

(continued from last page)

DOI_ARCHI_010

```
public static final java.lang.String DOI_ARCHI_010
```

Constant value: `DOI_ARCHI_010`

DOI_ARCHI_010_NAME

```
public static final java.lang.String DOI_ARCHI_010_NAME
```

Constant value: `Protocole HTTP et HTTPS pour les API`

DOI_ARCHI_020

```
public static final java.lang.String DOI_ARCHI_020
```

Constant value: `DOI_ARCHI_020`

DOI_ARCHI_020_NAME

```
public static final java.lang.String DOI_ARCHI_020_NAME
```

Constant value: `Logs`

DOI_ARCHI_030

```
public static final java.lang.String DOI_ARCHI_030
```

Constant value: `DOI_ARCHI_030`

DOI_ARCHI_030_NAME

```
public static final java.lang.String DOI_ARCHI_030_NAME
```

Constant value: `Plugins`

DOI_ARCHI_040

```
public static final java.lang.String DOI_ARCHI_040
```

Constant value: `DOI_ARCHI_040`

DOI_ARCHI_040_NAME

```
public static final java.lang.String DOI_ARCHI_040_NAME
```

Constant value: `Chargement des plugins`

DOI_INTER_010

```
public static final java.lang.String DOI_INTER_010
```

Constant value: `DOI_INTER_010`

DOI_INTER_010_NAME

public static final java.lang.String `DOI_INTER_010_NAME`

Constant value: `Interface avec Datacite Metadata Store`

DOI_INTER_020

public static final java.lang.String `DOI_INTER_020`

Constant value: `DOI_INTER_020`

DOI_INTER_020_NAME

public static final java.lang.String `DOI_INTER_020_NAME`

Constant value: `Interface avec CrossCite Citation`

DOI_INTER_030

public static final java.lang.String `DOI_INTER_030`

Constant value: `DOI_INTER_030`

DOI_INTER_030_NAME

public static final java.lang.String `DOI_INTER_030_NAME`

Constant value: `Interface avec la base de données de gestion des suffixes DOI`

DOI_INTER_040

public static final java.lang.String `DOI_INTER_040`

Constant value: `DOI_INTER_040`

DOI_INTER_040_NAME

public static final java.lang.String `DOI_INTER_040_NAME`

Constant value: `Interface avec la base de données de gestion des tokens`

DOI_INTER_050

public static final java.lang.String `DOI_INTER_050`

Constant value: `DOI_INTER_050`

DOI_INTER_050_NAME

public static final java.lang.String **DOI_INTER_050_NAME**

      Constant value: **Interface avec la base de données de gestion des utilisateurs**

DOI_INTER_060

public static final java.lang.String **DOI_INTER_060**

      Constant value: **DOI_INTER_060**

DOI_INTER_060_NAME

public static final java.lang.String **DOI_INTER_060_NAME**

      Constant value: **Vérification du schéma de métadonnées**

DOI_INTER_070

public static final java.lang.String **DOI_INTER_070**

      Constant value: **DOI_INTER_070**

DOI_INTER_070_NAME

public static final java.lang.String **DOI_INTER_070_NAME**

      Constant value: **Vérification des entrées fournies pour DataCite**

DOI_IHM_010

public static final java.lang.String **DOI_IHM_010**

      Constant value: **DOI_IHM_010**

DOI_IHM_010_NAME

public static final java.lang.String **DOI_IHM_010_NAME**

      Constant value: **IHM Web**

DOI_IHM_020

public static final java.lang.String **DOI_IHM_020**

      Constant value: **DOI_IHM_020**

DOI_IHM_020_NAME

public static final java.lang.String **DOI_IHM_020_NAME**

Constant value: **IHM de création d'un DOI**

DOI_IHM_030

public static final java.lang.String **DOI_IHM_030**

Constant value: **DOI_IHM_030**

DOI_IHM_030_NAME

public static final java.lang.String **DOI_IHM_030_NAME**

Constant value: **IHM de génération de métadonnées**

DOI_IHM_040

public static final java.lang.String **DOI_IHM_040**

Constant value: **DOI_IHM_040**

DOI_IHM_040_NAME

public static final java.lang.String **DOI_IHM_040_NAME**

Constant value: **IHM par service REST**

DOI_IHM_050

public static final java.lang.String **DOI_IHM_050**

Constant value: **DOI_IHM_050**

DOI_IHM_050_NAME

public static final java.lang.String **DOI_IHM_050_NAME**

Constant value: **IHM d'admin**

DOI_AUTH_010

public static final java.lang.String **DOI_AUTH_010**

Constant value: **DOI_AUTH_010**

DOI_AUTH_010_NAME

public static final java.lang.String **DOI_AUTH_010_NAME**

Constant value: **Authentification par login/mot de passe**

DOI_AUTH_020

public static final java.lang.String **DOI_AUTH_020**

Constant value: **DOI_AUTH_020**

DOI_AUTH_020_NAME

public static final java.lang.String **DOI_AUTH_020_NAME**

Constant value: **Authentification par token**

DOI_AUTH_030

public static final java.lang.String **DOI_AUTH_030**

Constant value: **DOI_AUTH_030**

DOI_AUTH_030_NAME

public static final java.lang.String **DOI_AUTH_030_NAME**

Constant value: **Authentification IHM**

DOI_AUTO_010

public static final java.lang.String **DOI_AUTO_010**

Constant value: **DOI_AUTO_010**

DOI_AUTO_010_NAME

public static final java.lang.String **DOI_AUTO_010_NAME**

Constant value: **Association des projets**

DOI_AUTO_020

public static final java.lang.String **DOI_AUTO_020**

Constant value: **DOI_AUTO_020**

DOI_AUTO_020_NAME

public static final java.lang.String **DOI_AUTO_020_NAME**

Constant value: **Sélection du rôle**

DOI_AUTO_030

public static final java.lang.String **DOI_AUTO_030**

Constant value: **DOI_AUTO_030**

DOI_AUTO_030_NAME

public static final java.lang.String **DOI_AUTO_030_NAME**

Constant value: **Vérification du projet**

DOI_DOC_010

public static final java.lang.String **DOI_DOC_010**

Constant value: **DOI_DOC_010**

DOI_DOC_010_NAME

public static final java.lang.String **DOI_DOC_010_NAME**

Constant value: **Documentation des interfaces**

DOI_DEV_010

public static final java.lang.String **DOI_DEV_010**

Constant value: **DOI_DEV_010**

DOI_DEV_010_NAME

public static final java.lang.String **DOI_DEV_010_NAME**

Constant value: **Développement en Java avec Maven**

DOI_DEV_020

public static final java.lang.String **DOI_DEV_020**

Constant value: **DOI_DEV_020**

DOI_DEV_020_NAME

public static final java.lang.String **DOI_DEV_020_NAME**

Constant value: **OpenSource**

DOI_DEPL_010

public static final java.lang.String **DOI_DEPL_010**

Constant value: **DOI_DEPL_010**

DOI_DEPL_010_NAME

public static final java.lang.String **DOI_DEPL_010_NAME**

Constant value: **Déploiement du serveur central**

DOI_CONFIG_010

public static final java.lang.String **DOI_CONFIG_010**

Constant value: **DOI_CONFIG_010**

DOI_CONFIG_010_NAME

public static final java.lang.String **DOI_CONFIG_010_NAME**

Constant value: **Configuration du serveur central**

DOI_CONFIG_020

public static final java.lang.String **DOI_CONFIG_020**

Constant value: **DOI_CONFIG_020**

DOI_CONFIG_020_NAME

public static final java.lang.String **DOI_CONFIG_020_NAME**

Constant value: **Evolutivité du schéma de métadonnées**

DOI_PERF_010

public static final java.lang.String **DOI_PERF_010**

Constant value: **DOI_PERF_010**

DOI_PERF_010_NAME

public static final java.lang.String **DOI_PERF_010_NAME**

Constant value: **Nombre de projets**

DOI_PERF_020

public static final java.lang.String **DOI_PERF_020**

Constant value: `DOI_PERF_020`

DOI_PERF_020_NAME

public static final java.lang.String `DOI_PERF_020_NAME`

Constant value: `Temps de création d'un DOI`

DOI_PERF_030

public static final java.lang.String `DOI_PERF_030`

Constant value: `DOI_PERF_030`

DOI_PERF_030_NAME

public static final java.lang.String `DOI_PERF_030_NAME`

Constant value: `Création de DOI en parallèle`

DOI_DISPO_010

public static final java.lang.String `DOI_DISPO_010`

Constant value: `DOI_DISPO_010`

DOI_DISPO_010_NAME

public static final java.lang.String `DOI_DISPO_010_NAME`

Constant value: `Taux de disponibilité`

DOI_DISPO_020

public static final java.lang.String `DOI_DISPO_020`

Constant value: `DOI_DISPO_020`

DOI_DISPO_020_NAME

public static final java.lang.String `DOI_DISPO_020_NAME`

Constant value: `Vérification des landing pages`

DOI_LIBCLI_010

public static final java.lang.String `DOI_LIBCLI_010`

Constant value: `DOI_LIBCLI_010`

DOI_LIBCLI_010_NAME

public static final java.lang.String **DOI_LIBCLI_010_NAME**

    Constant value: **Template de landing page**

DOI_LIBCLI_020

public static final java.lang.String **DOI_LIBCLI_020**

    Constant value: **DOI_LIBCLI_020**

DOI_LIBCLI_020_NAME

public static final java.lang.String **DOI_LIBCLI_020_NAME**

    Constant value: **Librairies clientes en Java et Python**

Methods

documentName

public String **documentName**()

reqId

public String **reqId**()

reqName

public String **reqName**()

coverage

public [CoverageAnnotation](#) **coverage**()

comment

public String **comment**()

version

public String **version**()

fr.cnes.doi.utils.spec.Requirement

fr.cnes.doi.utils.spec
Interface Requirements

public interface **Requirements**
extends Annotation

Annotation to allow the use @requirement more than one
Author:
> Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Method Summary

[Requirement[]](#)	[value](#)()

Methods inherited from interface java.lang.annotation.Annotation
annotationType, equals, hashCode, toString

Methods

value

public [Requirement[]](#) **value**()

Package

org.datacite.schema.kernel_4

org.datacite.schema.kernel_4
Class Box

```
java.lang.Object
   |
   +-org.datacite.schema.kernel_4.Box
```

public class **Box**
extends Object

Java class for box complex type.

The following schema fragment specifies the expected content contained within this class.

```
 <complexType name="box">
   <complexContent>
     <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
       <all>
         <element name="westBoundLongitude" type="{http://datacite.org/schema/kernel-
4}longitudeType"/>
         <element name="eastBoundLongitude" type="{http://datacite.org/schema/kernel-
4}longitudeType"/>
         <element name="southBoundLatitude" type="{http://datacite.org/schema/kernel-
4}latitudeType"/>
         <element name="northBoundLatitude" type="{http://datacite.org/schema/kernel-
4}latitudeType"/>
       </all>
     </restriction>
   </complexContent>
 </complexType>
```

Field Summary

protected	eastBoundLongitude
protected	northBoundLatitude
protected	southBoundLatitude
protected	westBoundLongitude

Constructor Summary

public	[Box](Box)()

Method Summary

float	getEastBoundLongitude() Gets the value of the eastBoundLongitude property.	
float	getNorthBoundLatitude() Gets the value of the northBoundLatitude property.	
float	getSouthBoundLatitude() Gets the value of the southBoundLatitude property.	
float	getWestBoundLongitude() Gets the value of the westBoundLongitude property.	
void	setEastBoundLongitude(float value) Sets the value of the eastBoundLongitude property.	
void	setNorthBoundLatitude(float value) Sets the value of the northBoundLatitude property.	
void	setSouthBoundLatitude(float value) Sets the value of the southBoundLatitude property.	
void	setWestBoundLongitude(float value) Sets the value of the westBoundLongitude property.	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

westBoundLongitude

protected float **westBoundLongitude**

eastBoundLongitude

protected float **eastBoundLongitude**

southBoundLatitude

protected float **southBoundLatitude**

northBoundLatitude

protected float **northBoundLatitude**

Constructors

(continued from last page)

Box

```
public Box()
```

Methods

getWestBoundLongitude

```
public float getWestBoundLongitude()
```

Gets the value of the westBoundLongitude property.

Returns:
the west bound longitude.

setWestBoundLongitude

```
public void setWestBoundLongitude(float value)
```

Sets the value of the westBoundLongitude property.

Parameters:
value - west bound longitude

getEastBoundLongitude

```
public float getEastBoundLongitude()
```

Gets the value of the eastBoundLongitude property.

Returns:
the east bound longitude

setEastBoundLongitude

```
public void setEastBoundLongitude(float value)
```

Sets the value of the eastBoundLongitude property.

Parameters:
value - the east bound longitude

getSouthBoundLatitude

```
public float getSouthBoundLatitude()
```

Gets the value of the southBoundLatitude property.

Returns:
the south bound longitude

setSouthBoundLatitude

```
public void setSouthBoundLatitude(float value)
```

Sets the value of the southBoundLatitude property.

Parameters:
    `value` - the south bound latitude

getNorthBoundLatitude

`public float` **`getNorthBoundLatitude`**`()`

Gets the value of the northBoundLatitude property.

Returns:
    the north bound latitude

setNorthBoundLatitude

`public void` **`setNorthBoundLatitude`**`(float value)`

Sets the value of the northBoundLatitude property.

Parameters:
    `value` - the north bound latitude

org.datacite.schema.kernel_4
Class ContributorType

```
java.lang.Object
    |
    +-java.lang.Enum
        |
        +-org.datacite.schema.kernel_4.ContributorType
```

All Implemented Interfaces:
>   Serializable, Comparable

---

public final class **ContributorType**
extends Enum

Java class for contributorType.

The following schema fragment specifies the expected content contained within this class.

```
<simpleType name="contributorType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="ContactPerson"/>
    <enumeration value="DataCollector"/>
    <enumeration value="DataCurator"/>
    <enumeration value="DataManager"/>
    <enumeration value="Distributor"/>
    <enumeration value="Editor"/>
    <enumeration value="HostingInstitution"/>
    <enumeration value="Other"/>
    <enumeration value="Producer"/>
    <enumeration value="ProjectLeader"/>
    <enumeration value="ProjectManager"/>
    <enumeration value="ProjectMember"/>
    <enumeration value="RegistrationAgency"/>
    <enumeration value="RegistrationAuthority"/>
    <enumeration value="RelatedPerson"/>
    <enumeration value="ResearchGroup"/>
    <enumeration value="RightsHolder"/>
    <enumeration value="Researcher"/>
    <enumeration value="Sponsor"/>
    <enumeration value="Supervisor"/>
    <enumeration value="WorkPackageLeader"/>
  </restriction>
</simpleType>
```

Field Summary

---

public static final	CONTACT_PERSON
	Person with knowledge of how to access, troubleshoot, or otherwise field issues related to the resource.
public static final	DATA_COLLECTOR
	Person/institution responsible for finding, gathering/collecting data under the guidelines of the author(s) or Principal Investigator (PI).
public static final	DATA_CURATOR
	Person tasked with reviewing, enhancing, cleaning, or standardizing metadata and the associated data submitted for storage, use, and maintenance within a data centre or repository.
public static final	DATA_MANAGER
	Person (or organisation with a staff of data managers, such as a data centre) responsible for maintaining the finished resource.
public static final	DISTRIBUTOR
	Institution tasked with responsibility to generate/disseminate copies of the resource in either electronic or print form.
public static final	EDITOR
	A person who oversees the details related to the publication format of the resource.
public static final	HOSTING_INSTITUTION
	Typically, the organisation allowing the resource to be available on the internet through the provision of its hardware/software/operating support.
public static final	OTHER
	Any person or institution making a significant contribution to the development and/or maintenance of the resource, but whose contribution does not âfitâ other controlled vocabulary for contributorType.
public static final	PRODUCER
	Typically a person or organisation responsible for the artistry and form of a media product.
public static final	PROJECT_LEADER
	Person officially designated as head of project team or subâproject team instrumental in the work necessary to development of the resource.
public static final	PROJECT_MANAGER
	Person officially designated as manager of a project.
public static final	PROJECT_MEMBER
	Person on the membership list of a designated project/project team.
public static final	REGISTRATION_AGENCY
	Institution/organisation officially appointed by a Registration Authority to handle specific tasks within a defined area of responsibility.
public static final	REGISTRATION_AUTHORITY
	A standardsâsetting body from which Registration Agencies obtain official recognition and guidance.
public static final	RELATED_PERSON
	A person without a specifically defined role in the development of the resource, but who is someone the author wishes to recognize.
public static final	RESEARCH_GROUP
	Typically refers to a group of individuals with a lab, department, or division; the group has a particular, defined focus of activity.

public static final	**RESEARCHER**	
	A person involved in analyzing data or the results of an experiment or formal study.	
public static final	**RIGHTS_HOLDER**	
	Person or institution owning or managing property rights, including intellectual property rights over the resource.	
public static final	**SPONSOR**	
	Person or organisation that issued a contract or under the auspices of which a work has been written, printed, published, developed, etc.	
public static final	**SUPERVISOR**	
	Designated administrator over one or more groups/teams working to produce a resource or over one or more steps of a development process.	
public static final	**WORK_PACKAGE_LEADER**	
	A Work Package is a recognized data product, not all of which is included in publication.	

Method Summary

static ContributorType	**fromValue**(String v) Gets the contributor type from a value	
String	**value**() Gets the value.	
static ContributorType	**valueOf**(String name)	
static ContributorType[]	**values**()	

Methods inherited from class `java.lang.Enum`

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Fields

CONTACT_PERSON

public static final org.datacite.schema.kernel_4.ContributorType **CONTACT_PERSON**

Person with knowledge of how to access, troubleshoot, or otherwise field issues related to the resource. May also be "Point of Contact" in organisation that controls access to the resource, if that organisation is different from Publisher, Distributor, Data Manager

DATA_COLLECTOR

`public static final org.datacite.schema.kernel_4.ContributorType` **`DATA_COLLECTOR`**

Person/institution responsible for finding, gathering/collecting data under the guidelines of the author(s) or Principal Investigator (PI). May also use when crediting survey conductors, interviewers, event or condition observers, person responsible for monitoring key instrument data.

DATA_CURATOR

`public static final org.datacite.schema.kernel_4.ContributorType` **`DATA_CURATOR`**

Person tasked with reviewing, enhancing, cleaning, or standardizing metadata and the associated data submitted for storage, use, and maintenance within a data centre or repository. While the "DataManager" is concerned with digital maintenance, the DataCuratorâs role encompasses quality assurance focused on content and metadata. This includes checking whether the submitted dataset is complete, with all files and components as described by submitter, whether the metadata is standardized to appropriate systems and schema, whether specialized metadata is needed to add value and ensure access across disciplines, and determining howÂ the metadata might map to search engines, database products, and automated feeds.

DATA_MANAGER

`public static final org.datacite.schema.kernel_4.ContributorType` **`DATA_MANAGER`**

Person (or organisation with a staff of data managers, such as a data centre) responsible for maintaining the finished resource. The work done by this person or organisation ensures that the resource is periodically "refreshed" in terms of software/hardware support, is kept available or is protected from unauthorized access, is stored in accordance with industry standards, and is handled in accordance with the records management requirements applicable to it.

DISTRIBUTOR

`public static final org.datacite.schema.kernel_4.ContributorType` **`DISTRIBUTOR`**

Institution tasked with responsibility to generate/disseminate copies of the resource in either electronic or print form. Works stored in more than one archive/repository may credit each as a distributor.

EDITOR

`public static final org.datacite.schema.kernel_4.ContributorType` **`EDITOR`**

A person who oversees the details related to the publication format of the resource. Note: if the Editor is to be credited in place of multiple creators, the Editor's name may be supplied as Creator, with "(Ed.)" appended to the name.

HOSTING_INSTITUTION

`public static final org.datacite.schema.kernel_4.ContributorType` **`HOSTING_INSTITUTION`**

Typically, the organisation allowing the resource to be available on the internet through the provision of its hardware/software/operating support. May also be used for an organisation that stores the data offline. Often a data centre (if that data centre is not the "publisher" of the resource.)

OTHER

`public static final org.datacite.schema.kernel_4.ContributorType` **`OTHER`**

Any person or institution making a significant contribution to the development and/or maintenance of the resource, but whose contribution does not âfitâ other controlled vocabulary for contributorType. Could be a photographer, artist, or writer whose contribution helped to publicize the resource (as opposed to creating it), a reviewer of the resource, someone providing administrative services to the author (such as depositing updates into an online repository, analysing usage, etc.), or one of many other roles.

PRODUCER

```
public static final org.datacite.schema.kernel_4.ContributorType PRODUCER
```

Typically a person or organisation responsible for the artistry and form of a media product. In the data industry, this may be a company "producing" DVDs that package data for future dissemination by a distributor

PROJECT_LEADER

```
public static final org.datacite.schema.kernel_4.ContributorType PROJECT_LEADER
```

Person officially designated as head of project team or subâproject team instrumental in the work necessary to development of the resource. The Project Leader is not "removed" from the work that resulted in the resource; he or she remains intimately involved throughout the life of the particular project team.

PROJECT_MANAGER

```
public static final org.datacite.schema.kernel_4.ContributorType PROJECT_MANAGER
```

Person officially designated as manager of a project. Project may consist of one or many project teams and subâteams. The manager of a project normally has more administrative responsibility than actual work involvement.

PROJECT_MEMBER

```
public static final org.datacite.schema.kernel_4.ContributorType PROJECT_MEMBER
```

Person on the membership list of a designated project/project team. This vocabulary may or may not indicate the quality, quantity, or substance of the person's involvement.

REGISTRATION_AGENCY

```
public static final org.datacite.schema.kernel_4.ContributorType REGISTRATION_AGENCY
```

Institution/organisation officially appointed by a Registration Authority to handle specific tasks within a defined area of responsibility. DataCite is a Registration Agency for the International DOI Foundation (IDF). One of DataCite's tasks is to assign DOI prefixes to the allocating agents who then assign the full, specific character string to data clients, provide metadata back to the DataCite registry, etc

REGISTRATION_AUTHORITY

```
public static final org.datacite.schema.kernel_4.ContributorType
REGISTRATION_AUTHORITY
```

A standardsâsetting body from which Registration Agencies obtain official recognition and guidance. The IDF serves as the Registration Authority for the International Standards Organisation (ISO) in the area/domain of Digital Object Identifiers.

RELATED_PERSON

```
public static final org.datacite.schema.kernel_4.ContributorType RELATED_PERSON
```

A person without a specifically defined role in the development of the resource, but who is someone the author wishes to recognize. This person could be an author's intellectual mentor, a person providing intellectual leadership in the discipline or subject domain, etc

RESEARCH_GROUP

```
public static final org.datacite.schema.kernel_4.ContributorType RESEARCH_GROUP
```

Typically refers to a group of individuals with a lab, department, or division; the group has a particular, defined focus of activity. May operate at a narrower level of scope; may or may not hold less administrative responsibility than a project team.

RIGHTS_HOLDER

`public static final org.datacite.schema.kernel_4.ContributorType` **`RIGHTS_HOLDER`**

Person or institution owning or managing property rights, including intellectual property rights over the resource.

RESEARCHER

`public static final org.datacite.schema.kernel_4.ContributorType` **`RESEARCHER`**

A person involved in analyzing data or the results of an experiment or formal study. May indicate an intern or assistant to one of the authors who helped with research but who was not so "key" as to be listed as an author. Should be a person, not an institution. Note that a person involved in the gathering of data would fall under the contributorType "DataCollector." The researcher may find additional data online and correlate it to the data collected for the experiment or study, for example.

SPONSOR

`public static final org.datacite.schema.kernel_4.ContributorType` **`SPONSOR`**

Person or organisation that issued a contract or under the auspices of which a work has been written, printed, published, developed, etc. Includes organisations that provide inâkind support, through donation, provision of people or a facility or instrumentation necessary for the development of the resource, etc.

SUPERVISOR

`public static final org.datacite.schema.kernel_4.ContributorType` **`SUPERVISOR`**

Designated administrator over one or more groups/teams working to produce a resource or over one or more steps of a development process.

WORK_PACKAGE_LEADER

`public static final org.datacite.schema.kernel_4.ContributorType` **`WORK_PACKAGE_LEADER`**

A Work Package is a recognized data product, not all of which is included in publication. The package, instead, may include notes, discarded documents, etc. The Work Package Leader is responsible for ensuring the comprehensive contents, versioning, and availability of the Work Package during the development of the resource.

Methods

values

`public static ContributorType[]` **`values`**`()`

valueOf

`public static ContributorType` **`valueOf`**`(String name)`

value

`public String` **`value`**`()`

Gets the value.

Returns:
the value

fromValue

public static ContributorType **fromValue**(String v)

Gets the contributor type from a value

Parameters:
v - value

Returns:
the contributor type

Throws:
IllegalArgumentException - - if contributor type not found

org.datacite.schema.kernel_4
Class DateType

```
java.lang.Object
    |
    +-java.lang.Enum
        |
        +-org.datacite.schema.kernel_4.DateType
```

All Implemented Interfaces:
Serializable, Comparable

---

public final class **DateType**
extends Enum

Java class for dateType.

The following schema fragment specifies the expected content contained within this class.

```xml
<simpleType name="dateType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="Accepted"/>
    <enumeration value="Available"/>
    <enumeration value="Collected"/>
    <enumeration value="Copyrighted"/>
    <enumeration value="Created"/>
    <enumeration value="Issued"/>
    <enumeration value="Other"/>
    <enumeration value="Submitted"/>
    <enumeration value="Updated"/>
    <enumeration value="Valid"/>
  </restriction>
</simpleType>
```

Field Summary

public static final	**ACCEPTED**	
	The date that the publisher accepted the resource into their system.	
public static final	**AVAILABLE**	
	The date the resource is made publicly available.	
public static final	**COLLECTED**	
	The date or date range in which the resource content was collected.	
public static final	**COPYRIGHTED**	
	The specific, documented date at which the resource receives a copyrighted status, if applicable.	

public static final	CREATED	The date the resource itself was put together; this could be a date range or a single date for a final component, e.g., the finalised file with all of the data.
public static final	ISSUED	The date that the resource is published or distributed e.g.
public static final	OTHER	Other
public static final	SUBMITTED	The date the creator submits the resource to the publisher.
public static final	UPDATED	The date of the last update to the resource, when the resource is being added to.
public static final	VALID	The date or date range during which the dataset or resource is accurate.

Method Summary

static DateType	fromValue(String v)	Finds DateType from value.
String	value()	Returns the value
static DateType	valueOf(String name)	
static DateType[]	values()	

Methods inherited from class `java.lang.Enum`
clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`
compareTo

Fields

ACCEPTED

public static final org.datacite.schema.kernel_4.DateType **ACCEPTED**

The date that the publisher accepted the resource into their system. To indicate the start of an embargo period, use Submitted or Accepted, as appropriate.

AVAILABLE

`public static final org.datacite.schema.kernel_4.DateType` **`AVAILABLE`**

The date the resource is made publicly available. May be a range. To indicate the end of an embargo period, use Available.

COLLECTED

`public static final org.datacite.schema.kernel_4.DateType` **`COLLECTED`**

The date or date range in which the resource content was collected. To indicate precise or particular timeframes in which research was conducted.

COPYRIGHTED

`public static final org.datacite.schema.kernel_4.DateType` **`COPYRIGHTED`**

The specific, documented date at which the resource receives a copyrighted status, if applicable.

CREATED

`public static final org.datacite.schema.kernel_4.DateType` **`CREATED`**

The date the resource itself was put together; this could be a date range or a single date for a final component, e.g., the finalised file with all of the data. Recommended for discovery

ISSUED

`public static final org.datacite.schema.kernel_4.DateType` **`ISSUED`**

The date that the resource is published or distributed e.g. to a data centre.

OTHER

`public static final org.datacite.schema.kernel_4.DateType` **`OTHER`**

Other

SUBMITTED

`public static final org.datacite.schema.kernel_4.DateType` **`SUBMITTED`**

The date the creator submits the resource to the publisher. This could be different from Accepted if the publisher then applies a selection process. Recommended for discovery. To indicate the start of an embargo period, use Submitted or Accepted, as appropriate.

UPDATED

`public static final org.datacite.schema.kernel_4.DateType` **`UPDATED`**

The date of the last update to the resource, when the resource is being added to. May be a range.

VALID

`public static final org.datacite.schema.kernel_4.DateType` **`VALID`**

The date or date range during which the dataset or resource is accurate.

Methods

values

```
public static DateType[] values()
```

valueOf

```
public static DateType valueOf(String name)
```

value

```
public String value()
```

Returns the value

Returns:
the value

fromValue

```
public static DateType fromValue(String v)
```

Finds DateType from value.

Parameters:
v - value

Returns:
datType

org.datacite.schema.kernel_4
Class DescriptionType

```
java.lang.Object
    │
    +-java.lang.Enum
         │
         +-org.datacite.schema.kernel_4.DescriptionType
```

All Implemented Interfaces:
> Serializable, Comparable

---

public final class **DescriptionType**
extends Enum

Java class for descriptionType.

The following schema fragment specifies the expected content contained within this class.

```
<simpleType name="descriptionType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="Abstract"/>
    <enumeration value="Methods"/>
    <enumeration value="SeriesInformation"/>
    <enumeration value="TableOfContents"/>
    <enumeration value="TechnicalInfo"/>
    <enumeration value="Other"/>
  </restriction>
</simpleType>
```

Field Summary

public static final	ABSTRACT A brief description of the resource and the context in which the resource was created.
public static final	METHODS The methodology employed for the study or research.
public static final	OTHER Other description information that does not fit into an existing category.
public static final	SERIES_INFORMATION Information about a repeating series, such as volume, issue, number.
public static final	TABLE_OF_CONTENTS A listing of the Table of Contents.
public static final	TECHNICAL_INFO Detailed information that may be associated with design, implementation, operation, use, and/or maintenance of a process or system.

Method Summary

static DescriptionType	fromValue(String v) Returns the description type from the value.
String	value() Returns the value.
static DescriptionType	valueOf(String name)
static [DescriptionType[]](DescriptionType)	values()

Methods inherited from class `java.lang.Enum`

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Fields

ABSTRACT

public static final org.datacite.schema.kernel_4.DescriptionType **ABSTRACT**

A brief description of the resource and the context in which the resource was created. Recommended for discovery. Use "
" to indicate a line break for improved rendering of multiple paragraphs, but otherwise no html markup.

Example: http://data.datacite.org/10.1594/PANGAEA.771774

METHODS

public static final org.datacite.schema.kernel_4.DescriptionType **METHODS**

The methodology employed for the study or research. Recommended for discovery.

For example, see section "Sampling, Processing and Quality Control Methods" in the following dataset record: https://knb.ecoinformatics.org/#view/doi:10.5063/F1DZ067F

SERIES_INFORMATION

public static final org.datacite.schema.kernel_4.DescriptionType **SERIES_INFORMATION**

Information about a repeating series, such as volume, issue, number. For use with grey literature. If providing an ISSN, use property 12 (RelatedIdentifier), relatedIdentifierType=ISSN. For dataset series, use property 12 (RelatedIdentifier) and describe the relationships with isPartOf or HasPart.

Example: http://data.datacite.org/10.4229/23RDEUPVSEC2008â5CO.8.3

TABLE_OF_CONTENTS

public static final org.datacite.schema.kernel_4.DescriptionType **TABLE_OF_CONTENTS**

A listing of the Table of Contents. Use "
" to indicate a line break for improved rendering of multiple paragraphs, but otherwise no html markup.

Example: http://data.datacite.org/10.5678/LCRS/FOR816.CIT.1031

TECHNICAL_INFO

public static final org.datacite.schema.kernel_4.DescriptionType **TECHNICAL_INFO**

Detailed information that may be associated with design, implementation, operation, use, and/or maintenance of a process or system. For software description, this may include a readme.txt, and necessary environmental information such as hardware, operational software, applications/programs, and versions. For other uses, this can include specific and detailed information as necessary and appropriate.

OTHER

public static final org.datacite.schema.kernel_4.DescriptionType **OTHER**

Other description information that does not fit into an existing category. Use for any other description type.

Methods

values

public static [DescriptionType[]](#) **values**()

valueOf

public static [DescriptionType](#) **valueOf**(String name)

value

public String **value**()

Returns the value.

Returns:
the value

fromValue

public static [DescriptionType](#) **fromValue**(String v)

Returns the description type from the value.

Parameters:
v - value

Returns:
the description type

org.datacite.schema.kernel_4
Class FunderIdentifierType

```
java.lang.Object
    |
    +-java.lang.Enum
         |
         +-org.datacite.schema.kernel_4.FunderIdentifierType
```

All Implemented Interfaces:
      Serializable, Comparable

---
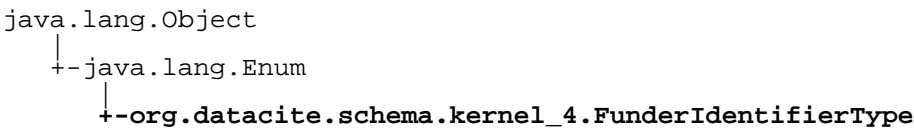
public final class **FunderIdentifierType**
extends Enum

Java class for funderIdentifierType.

The following schema fragment specifies the expected content contained within this class.

```
<simpleType name="funderIdentifierType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="ISNI"/>
    <enumeration value="GRID"/>
    <enumeration value="Crossref Funder ID"/>
    <enumeration value="Other"/>
  </restriction>
</simpleType>
```

Field Summary

public static final	[CROSSREF_FUNDER_ID](#)
public static final	[GRID](#)
public static final	[ISNI](#)
public static final	[OTHER](#)

Method Summary

static [FunderIdentifierType](#)	[fromValue](#)(String v) Returns the FunderIdentifierType from the value
String	[value](#)() Returns the value.
static [FunderIdentifierType](#)	[valueOf](#)(String name)

static FunderIdentifierType[ ]	values()

Methods inherited from class `java.lang.Enum`

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Fields

ISNI

public static final org.datacite.schema.kernel_4.FunderIdentifierType **ISNI**

GRID

public static final org.datacite.schema.kernel_4.FunderIdentifierType **GRID**

CROSSREF_FUNDER_ID

public static final org.datacite.schema.kernel_4.FunderIdentifierType
CROSSREF_FUNDER_ID

OTHER

public static final org.datacite.schema.kernel_4.FunderIdentifierType **OTHER**

Methods

values

public static FunderIdentifierType[] **values**()

valueOf

```
public static FunderIdentifierType valueOf(String name)
```

value

```
public String value()
```

Returns the value.

Returns:
the value

fromValue

```
public static FunderIdentifierType fromValue(String v)
```

Returns the FunderIdentifierType from the value

Parameters:
v - value

Returns:
the FunderIdentifierType

valueOf

```
public static FunderIdentifierType valueOf(String name)
```

org.datacite.schema.kernel_4
Class NameType

```
java.lang.Object
    │
    +-java.lang.Enum
           │
           +-org.datacite.schema.kernel_4.NameType
```

All Implemented Interfaces:
Serializable, Comparable

---

public final class **NameType**
extends Enum

Java class for nameType.

The following schema fragment specifies the expected content contained within this class.

```
<simpleType name="nameType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="Organizational"/>
    <enumeration value="Personal"/>
  </restriction>
</simpleType>
```

Field Summary

public static final	ORGANIZATIONAL
public static final	PERSONAL

Method Summary

static NameType	fromValue(String v)
String	value()
static NameType	valueOf(String name)
static NameType[]	values()

Methods inherited from class java.lang.Enum

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

---

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.lang.Comparable`

```
compareTo
```

Fields

ORGANIZATIONAL

```
public static final org.datacite.schema.kernel_4.NameType ORGANIZATIONAL
```

PERSONAL

```
public static final org.datacite.schema.kernel_4.NameType PERSONAL
```

Methods

values

```
public static NameType[] values()
```

valueOf

```
public static NameType valueOf(String name)
```

value

```
public String value()
```

fromValue

```
public static NameType fromValue(String v)
```

org.datacite.schema.kernel_4
Class ObjectFactory

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.ObjectFactory
```

public class **ObjectFactory**
extends Object

This object contains factory methods for each Java content interface and Java element interface generated in the org.datacite.schema.kernel_4 package.

An ObjectFactory allows you to programatically construct new instances of the Java representation for XML content. The Java representation of XML content can consist of schema derived interfaces and classes representing the binding of schema type definitions, element declarations and model groups. Factory methods for each of these are provided in this class.

Constructor Summary

public	**ObjectFactory**() Create a new ObjectFactory that can be used to create new instances of schema derived classes for package: org.datacite.schema.kernel_4

Method Summary

Box	**createBox**() Create an instance of Box
Point	**createPoint**() Create an instance of Point
Resource	**createResource**() Create an instance of Resource
Resource.AlternateIdentifiers	**createResourceAlternateIdentifiers**() Create an instance of Resource.AlternateIdentifiers
Resource.AlternateIdentifiers.AlternateIdentifier	**createResourceAlternateIdentifiersAlternateIdentifier**() Create an instance of Resource.AlternateIdentifiers.AlternateIdentifier
Resource.Contributors	**createResourceContributors**() Create an instance of Resource.Contributors
Resource.Contributors.Contributor	**createResourceContributorsContributor**() Create an instance of Resource.Contributors.Contributor
Resource.Contributors.Contributor.ContributorName	**createResourceContributorsContributorContributorName**() Create an instance of Resource.Contributors.Contributor.ContributorName
Resource.Contributors.Contributor.NameIdentifier	**createResourceContributorsContributorNameIdentifier**() Create an instance of Resource.Contributors.Contributor.NameIdentifier
Resource.Creators	**createResourceCreators**() Create an instance of Resource.Creators

Resource.Creators.Creator	createResourceCreatorsCreator() Create an instance of Resource.Creators.Creator
Resource.Creators.Creator.CreatorName	createResourceCreatorsCreatorCreatorName() Create an instance of Resource.Creators.Creator.CreatorName
Resource.Creators.Creator.NameIdentifier	createResourceCreatorsCreatorNameIdentifier() Create an instance of Resource.Creators.Creator.NameIdentifier
Resource.Dates	createResourceDates() Create an instance of Resource.Dates
Resource.Dates.Date	createResourceDatesDate() Create an instance of Resource.Dates.Date
Resource.Descriptions	createResourceDescriptions() Create an instance of Resource.Descriptions
Resource.Descriptions.Description	createResourceDescriptionsDescription() Create an instance of Resource.Descriptions.Description
javax.xml.bind.JAXBElement	createResourceDescriptionsDescriptionBr(String value) Create an instance of javax.xml.bind.JAXBElement<<code>java.lang.String>}
Resource.Formats	createResourceFormats() Create an instance of Resource.Formats
Resource.FundingReferences	createResourceFundingReferences() Create an instance of Resource.FundingReferences
Resource.FundingReferences.FundingReference	createResourceFundingReferencesFundingReference() Create an instance of Resource.FundingReferences.FundingReference
Resource.FundingReferences.FundingReference.AwardNumber	createResourceFundingReferencesFundingReferenceAwardNumber() Create an instance of Resource.FundingReferences.FundingReference.AwardNumber
Resource.FundingReferences.FundingReference.FunderIdentifier	createResourceFundingReferencesFundingReferenceFunderIdentifier() Create an instance of Resource.FundingReferences.FundingReference.FunderIdentifier
Resource.GeoLocations	createResourceGeoLocations() Create an instance of Resource.GeoLocations
Resource.GeoLocations.GeoLocation	createResourceGeoLocationsGeoLocation() Create an instance of Resource.GeoLocations.GeoLocation
Resource.GeoLocations.GeoLocation.GeoLocationPolygon	createResourceGeoLocationsGeoLocationGeoLocationPolygon() Create an instance of Resource.GeoLocations.GeoLocation.GeoLocationPolygon
Resource.Identifier	createResourceIdentifier() Create an instance of Resource.Identifier
Resource.RelatedIdentifiers	createResourceRelatedIdentifiers() Create an instance of Resource.RelatedIdentifiers
Resource.RelatedIdentifiers.RelatedIdentifier	createResourceRelatedIdentifiersRelatedIdentifier() Create an instance of Resource.RelatedIdentifiers.RelatedIdentifier

Resource.ResourceType	createResourceResourceType() Create an instance of Resource.ResourceType
Resource.RightsList	createResourceRightsList() Create an instance of Resource.RightsList
Resource.RightsList.Rights	createResourceRightsListRights() Create an instance of Resource.RightsList.Rights
Resource.Sizes	createResourceSizes() Create an instance of Resource.Sizes
Resource.Subjects	createResourceSubjects() Create an instance of Resource.Subjects
Resource.Subjects.Subject	createResourceSubjectsSubject() Create an instance of Resource.Subjects.Subject
Resource.Titles	createResourceTitles() Create an instance of Resource.Titles
Resource.Titles.Title	createResourceTitlesTitle() Create an instance of Resource.Titles.Title

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

ObjectFactory

public **ObjectFactory**()

Create a new ObjectFactory that can be used to create new instances of schema derived classes for package: org.datacite.schema.kernel_4

Methods

createResource

public Resource **createResource**()

Create an instance of Resource

Returns:
    the resource

createResourceFundingReferences

public Resource.FundingReferences **createResourceFundingReferences**()

Create an instance of Resource.FundingReferences

Returns:

the FundingReferences

createResourceFundingReferencesFundingReference

public `Resource.FundingReferences.FundingReference`
createResourceFundingReferencesFundingReference()

Create an instance of `Resource.FundingReferences.FundingReference`

Returns:
the FundingReference

createResourceGeoLocations

public `Resource.GeoLocations` **createResourceGeoLocations**()

Create an instance of `Resource.GeoLocations`

Returns:
the GeoLocations

createResourceGeoLocationsGeoLocation

public `Resource.GeoLocations.GeoLocation` **createResourceGeoLocationsGeoLocation**()

Create an instance of `Resource.GeoLocations.GeoLocation`

Returns:
the GeoLocation

createResourceDescriptions

public `Resource.Descriptions` **createResourceDescriptions**()

Create an instance of `Resource.Descriptions`

Returns:
the Descriptions

createResourceRightsList

public `Resource.RightsList` **createResourceRightsList**()

Create an instance of `Resource.RightsList`

Returns:
the RightsList

createResourceRelatedIdentifiers

public `Resource.RelatedIdentifiers` **createResourceRelatedIdentifiers**()

Create an instance of `Resource.RelatedIdentifiers`

Returns:
the RelatedIdentifiers

createResourceAlternateIdentifiers

public Resource.AlternateIdentifiers **createResourceAlternateIdentifiers**()

Create an instance of Resource.AlternateIdentifiers

Returns:
the AlternateIdentifiers

createResourceDates

public Resource.Dates **createResourceDates**()

Create an instance of Resource.Dates

Returns:
the Dates

createResourceContributors

public Resource.Contributors **createResourceContributors**()

Create an instance of Resource.Contributors

Returns:
the Contributors

createResourceContributorsContributor

public Resource.Contributors.Contributor **createResourceContributorsContributor**()

Create an instance of Resource.Contributors.Contributor

Returns:
the Contributor

createResourceSubjects

public Resource.Subjects **createResourceSubjects**()

Create an instance of Resource.Subjects

Returns:
the Subjects

createResourceTitles

public Resource.Titles **createResourceTitles**()

Create an instance of Resource.Titles

Returns:
the Titles

createResourceCreators

public Resource.Creators **createResourceCreators**()

(continued from last page)

Create an instance of `Resource.Creators`

Returns:
the Creators

createResourceCreatorsCreator

public `Resource.Creators.Creator` **createResourceCreatorsCreator**()

Create an instance of `Resource.Creators.Creator`

Returns:
the Creator

createResourceIdentifier

public `Resource.Identifier` **createResourceIdentifier**()

Create an instance of `Resource.Identifier`

Returns:
the Identifier

createResourceResourceType

public `Resource.ResourceType` **createResourceResourceType**()

Create an instance of `Resource.ResourceType`

Returns:
the ResourceType

createResourceSizes

public `Resource.Sizes` **createResourceSizes**()

Create an instance of `Resource.Sizes`

Returns:
the Sizes

createResourceFormats

public `Resource.Formats` **createResourceFormats**()

Create an instance of `Resource.Formats`

Returns:
the Formats

createBox

public `Box` **createBox**()

Create an instance of `Box`

Returns:
the Box

createPoint

public `Point` **createPoint**()

Create an instance of `Point`

Returns:
the Point

createResourceFundingReferencesFundingReferenceFunderIdentifier

public `Resource.FundingReferences.FundingReference.FunderIdentifier`
createResourceFundingReferencesFundingReferenceFunderIdentifier()

Create an instance of `Resource.FundingReferences.FundingReference.FunderIdentifier`

Returns:
the FunderIdentifier

createResourceFundingReferencesFundingReferenceAwardNumber

public `Resource.FundingReferences.FundingReference.AwardNumber`
createResourceFundingReferencesFundingReferenceAwardNumber()

Create an instance of `Resource.FundingReferences.FundingReference.AwardNumber`

Returns:
the AwardNumber

createResourceGeoLocationsGeoLocationGeoLocationPolygon

public `Resource.GeoLocations.GeoLocation.GeoLocationPolygon`
createResourceGeoLocationsGeoLocationGeoLocationPolygon()

Create an instance of `Resource.GeoLocations.GeoLocation.GeoLocationPolygon`

Returns:
the GeoLocationPolygon

createResourceDescriptionsDescription

public `Resource.Descriptions.Description` **createResourceDescriptionsDescription**()

Create an instance of `Resource.Descriptions.Description`

Returns:
the Description

createResourceRightsListRights

public `Resource.RightsList.Rights` **createResourceRightsListRights**()

Create an instance of `Resource.RightsList.Rights`

Returns:
the Rights

createResourceRelatedIdentifiersRelatedIdentifier

public `Resource.RelatedIdentifiers.RelatedIdentifier`
createResourceRelatedIdentifiersRelatedIdentifier()

> Create an instance of `Resource.RelatedIdentifiers.RelatedIdentifier`
>
> **Returns:**
> > the RelatedIdentifier

createResourceAlternateIdentifiersAlternateIdentifier

public `Resource.AlternateIdentifiers.AlternateIdentifier`
createResourceAlternateIdentifiersAlternateIdentifier()

> Create an instance of `Resource.AlternateIdentifiers.AlternateIdentifier`
>
> **Returns:**
> > the AlternateIdentifier

createResourceDatesDate

public `Resource.Dates.Date` **createResourceDatesDate**()

> Create an instance of `Resource.Dates.Date`
>
> **Returns:**
> > the Date

createResourceContributorsContributorContributorName

public `Resource.Contributors.Contributor.ContributorName`
createResourceContributorsContributorContributorName()

> Create an instance of `Resource.Contributors.Contributor.ContributorName`
>
> **Returns:**
> > the ContributorName

createResourceContributorsContributorNameIdentifier

public `Resource.Contributors.Contributor.NameIdentifier`
createResourceContributorsContributorNameIdentifier()

> Create an instance of `Resource.Contributors.Contributor.NameIdentifier`
>
> **Returns:**
> > the NameIdentifier

createResourceSubjectsSubject

public `Resource.Subjects.Subject` **createResourceSubjectsSubject**()

> Create an instance of `Resource.Subjects.Subject`
>
> **Returns:**
> > the Subject

createResourceTitlesTitle

public `Resource.Titles.Title` **createResourceTitlesTitle**()

> Create an instance of `Resource.Titles.Title`
>
> **Returns:**
> > the Title

createResourceCreatorsCreatorCreatorName

public `Resource.Creators.Creator.CreatorName`
createResourceCreatorsCreatorCreatorName()

> Create an instance of `Resource.Creators.Creator.CreatorName`
>
> **Returns:**
> > the CreatorName

createResourceCreatorsCreatorNameIdentifier

public `Resource.Creators.Creator.NameIdentifier`
createResourceCreatorsCreatorNameIdentifier()

> Create an instance of `Resource.Creators.Creator.NameIdentifier`
>
> **Returns:**
> > the NameIdentifier

createResourceDescriptionsDescriptionBr

public javax.xml.bind.JAXBElement **createResourceDescriptionsDescriptionBr**(String
value)

> Create an instance of javax.xml.bind.JAXBElement<<code>java.lang.String>}
>
> **Parameters:**
> > `value` - description
>
> **Returns:**
> > the JAXBElement

org.datacite.schema.kernel_4
Class Point

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Point
```

public class **Point**
extends Object

Java class for point complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType name="point">
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <all>
        <element name="pointLongitude" type="{http://datacite.org/schema/kernel-
4}longitudeType"/>
        <element name="pointLatitude" type="{http://datacite.org/schema/kernel-
4}latitudeType"/>
      </all>
    </restriction>
  </complexContent>
</complexType>
```

Field Summary

protected	[pointLatitude](#)
protected	[pointLongitude](#)

Constructor Summary

public	[Point](#)()

Method Summary

float	[getPointLatitude](#)() Gets the value of the pointLatitude property.
float	[getPointLongitude](#)() Gets the value of the pointLongitude property.
void	[setPointLatitude](#)(float value) Sets the value of the pointLatitude property.

void	[setPointLongitude](#)(float value) Sets the value of the pointLongitude property.	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

pointLongitude

protected float **pointLongitude**

pointLatitude

protected float **pointLatitude**

Constructors

Point

public **Point**()

Methods

getPointLongitude

public float **getPointLongitude**()

Gets the value of the pointLongitude property.

Returns:
the longitude

setPointLongitude

public void **setPointLongitude**(float value)

Sets the value of the pointLongitude property.

Parameters:
value - the longitude

getPointLatitude

public float **getPointLatitude**()

Gets the value of the pointLatitude property.

Returns:
   the latitude

setPointLatitude

```
public void setPointLatitude(float value)
```

Sets the value of the pointLatitude property.

Parameters:
   value - the latitude

org.datacite.schema.kernel_4
Class RelatedIdentifierType

```
java.lang.Object
    │
    +-java.lang.Enum
        │
        +-org.datacite.schema.kernel_4.RelatedIdentifierType
```

All Implemented Interfaces:
> Serializable, Comparable

---
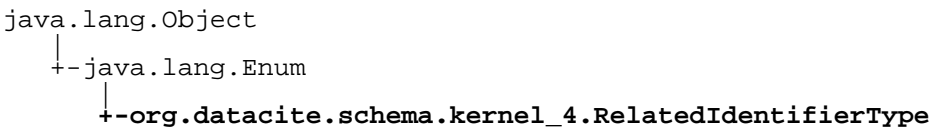
public final class **RelatedIdentifierType**
extends Enum

Java class for relatedIdentifierType.

The following schema fragment specifies the expected content contained within this class.

```
<simpleType name="relatedIdentifierType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="ARK"/>
    <enumeration value="arXiv"/>
    <enumeration value="bibcode"/>
    <enumeration value="DOI"/>
    <enumeration value="EAN13"/>
    <enumeration value="EISSN"/>
    <enumeration value="Handle"/>
    <enumeration value="IGSN"/>
    <enumeration value="ISBN"/>
    <enumeration value="ISSN"/>
    <enumeration value="ISTC"/>
    <enumeration value="LISSN"/>
    <enumeration value="LSID"/>
    <enumeration value="PMID"/>
    <enumeration value="PURL"/>
    <enumeration value="UPC"/>
    <enumeration value="URL"/>
    <enumeration value="URN"/>
  </restriction>
</simpleType>
```

Field Summary

public static final	[AR_XIV](#) arXiv identifier; arXiv.org is a repository of preprints of scientific papers in the fields of mathematics, physics, astronomy, computer science, quantitative biology, statistics, and quantitative finance.

---

public static final	**ARK**	
	Archival Resource Key; URL designed to support longâterm access to information objects.	
public static final	**BIBCODE**	
	Astrophysics Data System bibliographic codes; a standardized 19 character identifier according to the syntax yyyyjjjjjvvvvmppppa.	
public static final	**DOI**	
	Digital Object Identifier; a character string used to uniquely identify an object.	
public static final	**EAN_13**	
	European Article Number, now renamed International Article Number, but retaining the original acronym, is a 13âdigit barcoding standard which is a superset of the original 12âdigit Universal Product Code (UPC) system.	
public static final	**EISSN**	
	Electronic International Standard Serial Number; ISSN used to identify periodicals in electronic form (eISSN or eâISSN).	
public static final	**HANDLE**	
	e A handle is an abstract reference to a resource.	
public static final	**IGSN**	
	International Geo Sample Number; a 9âdigit alphanumeric code that uniquely identifies samples from our natural environment and related sampling features.	
public static final	**ISBN**	
	International Standard Book Number; a unique numeric book identifier.	
public static final	**ISSN**	
	International Standard Serial Number; a unique 8âdigit number used to identify a print or electronic periodical publication.	
public static final	**ISTC**	
	International Standard Text Code; a unique "number" assigned to a textual work.	
public static final	**LISSN**	
	The linking ISSN or ISSNâL enables collocation or linking among different media versions of a continuing resource.	
public static final	**LSID**	
	Life Science Identifiers; a unique identifier for data in the Life Science domain.	
public static final	**PMID**	
	PubMed identifier; a unique number assigned to each PubMed record.	
public static final	**PURL**	
	Persistent Uniform Resource Locator.	
public static final	**UPC**	
	Universal Product Code is a barcode symbology used for tracking trade items in stores.	
public static final	**URL**	
	Uniform Resource Locator, also known as web address, is a specific character string that constitutes a reference to a resource.	
public static final	**URN**	
	Uniform Resource Name; is a unique and persistent identifier of an electronic document.	

Method Summary

static [RelatedIdentifierType](#)	[fromValue](#)(String v) Returns the related identifier type
String	[value](#)() Returns the value.
static [RelatedIdentifierType](#)	[valueOf](#)(String name)
static [RelatedIdentifierType](#)[[]](#)	[values](#)()

Methods inherited from class `java.lang.Enum`

`clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `java.lang.Comparable`

`compareTo`

Fields

ARK

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType` **ARK**

Archival Resource Key; URL designed to support longâterm access to information objects. In general, ARK syntax is of the form (brackets indicate [optional] elements: [http://NMA/]ark:/NAAN/Name[Qualifier]

```
<relatedidentifier>
   ark:/13030/tqb3kh97gh8w
</relatedidentifier>
```

AR_XIV

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType` **AR_XIV**

arXiv identifier; arXiv.org is a repository of preprints of scientific papers in the fields of mathematics, physics, astronomy, computer science, quantitative biology, statistics, and quantitative finance.

```
<relatedidentifier>
  arXiv:0706.0001
</relatedidentifier>
```

BIBCODE

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType BIBCODE
```

Astrophysics Data System bibliographic codes; a standardized 19 character identifier according to the syntax yyyyjjjjjvvvvmppppa.
http://infoâuri.info/registry/OAIHandler?verb=GetRecord&metadataPrefix=reg&identifier=info:bibcode/

```
<relatedidentifier>
  2014Wthrâ¦69â¦72C
</relatedidentifier>
```

Note:Â Â bibcodes can be resolved via http://adsabs.harvard.edu/abs/bibcode

DOI

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType DOI
```

Digital Object Identifier; a character string used to uniquely identify an object. A DOI name is divided into two parts, a prefix and a suffix, separated by a slash.

```
<relatedidentifier>
   10.1016/j.epsl.2011.11.037
</relatedidentifier>
```

EAN_13

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType EAN_13
```

European Article Number, now renamed International Article Number, but retaining the original acronym, is a 13âdigit barcoding standard which is a superset of the original 12âdigit Universal Product Code (UPC) system.

```
<relatedidentifier>
   9783468111242
</relatedidentifier>Â Â Â
```

EISSN

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType EISSN
```

Electronic International Standard Serial Number; ISSN used to identify periodicals in electronic form (eISSN or eâISSN).

```
<relatedidentifier>
```

HANDLE

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType HANDLE
```

e A handle is an abstract reference to a resource.

```
<relatedidentifier>
   10013/epic.10033
</relatedidentifier>
```

IGSN

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType IGSN
```

International Geo Sample Number; a 9âdigit alphanumeric code that uniquely identifies samples from our natural environment and related sampling features.

```
<relatedidentifier>
    IECUR0097
</relatedidentifier>
```

ISBN

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType ISBN
```

International Standard Book Number; a unique numeric book identifier. There are 2 formats: a 10âdigit ISBN format and a 13âdigit ISBN.

```
<relatedidentifier><relatedidentifier>
    978â3â905673â82â1
</relatedidentifier>
```

ISSN

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType ISSN
```

International Standard Serial Number; a unique 8âdigit number used to identify a print or electronic periodical publication.

```
<relatedidentifier>
    0077â5606
</relatedidentifier>
```

ISTC

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType ISTC
```

International Standard Text Code; a unique "number" assigned to a textual work. An ISTC consists of 16 numbers and/or letters.

```
<relatedidentifier>
   0A9 2002 12B4A105 7
</relatedidentifier>
```

LISSN

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType` **LISSN**

The linking ISSN or ISSNâL enables collocation or linking among different media versions of a continuing resource.

```
<relatedidentifier>
   1188â1534
</relatedidentifier>
```

LSID

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType` **LSID**

Life Science Identifiers; a unique identifier for data in the Life Science domain. Format: urn:lsid:authority:namespace:id entifier:revision

```
<relatedidentifier>
   urn:lsid:ubio.org:namebank:11815
</relatedidentifier>
```

PMID

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType` **PMID**

PubMed identifier; a unique number assigned to each PubMed record.

```
<relatedidentifier>
    12082125
</relatedidentifier>
```

PURL

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType PURL`

Persistent Uniform Resource Locator. A PURL has three parts: (1) a protocol, (2) a resolver address, and (3) a name.

```
<relatedidentifier>
    http://purl.oclc.org/foo/bar
</relatedidentifier>
```

UPC

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType UPC`

Universal Product Code is a barcode symbology used for tracking trade items in stores. Its most common form, the UPCâA, consists of 12 numerical digits.

```
<relatedidentifier>
    123456789999
</relatedidentifier>
```

URL

`public static final org.datacite.schema.kernel_4.RelatedIdentifierType URL`

Uniform Resource Locator, also known as web address, is a specific character string that constitutes a reference to a resource. The syntax is: scheme://domain:port/path?query_string#fragment_id

```
<relatedidentifier>
    http://www.heatflow.und.edu/index2.html
</relatedidentifier>
```

URN

public static final org.datacite.schema.kernel_4.RelatedIdentifierType **URN**

Uniform Resource Name; is a unique and persistent identifier of an electronic document. null null null null null The syntax is: urn:< NID>: The leading urn: sequence is caseâinsensitive,
 is the namespace identifier,
 is the namespaceâspecific string.

```
<relatedidentifier>
    urn:nbn:de:101:1â201102033592
</relatedidentifier>
```

Methods

values

public static [RelatedIdentifierType[]](RelatedIdentifierType[]) **values**()

valueOf

public static RelatedIdentifierType **valueOf**(String name)

value

public String **value**()

Returns the value.

Returns:
    the value

fromValue

public static [RelatedIdentifierType](#) **fromValue**(String v)

Returns the related identifier type

Parameters:
v - value

Returns:
the related identifier type

fromValue

public static [RelatedIdentifierType](#) **fromValue**(String v)

Returns the related identifier type

org.datacite.schema.kernel_4
Class RelationType

```
java.lang.Object
    │
    +-java.lang.Enum
         │
         +-org.datacite.schema.kernel_4.RelationType
```

All Implemented Interfaces:
> Serializable, Comparable

public final class **RelationType**
extends Enum

Description of the relationship of the resource being registered (A) and the related resource (B).

Field Summary

public static final	CITES indicates that A includes B in a citation.
public static final	COMPILES indicates B is the result of a compile or creation event using A.
public static final	CONTINUES indicates A is a continuation of the work B.
public static final	DESCRIBES
public static final	DOCUMENTS indicates A is documentation about/B.
public static final	HAS_METADATA indicates resource A has additional metadata B.
public static final	HAS_PART indicates A includes the part B.
public static final	HAS_VERSION
public static final	IS_CITED_BY indicates that B includes A in a citation.
public static final	IS_COMPILED_BY indicates B is used to compile or create A.
public static final	IS_CONTINUED_BY indicates A is continued by the work B.
public static final	IS_DERIVED_FROM indicates B is a source upon which A is based.
public static final	IS_DESCRIBED_BY

public static final	`IS_DOCUMENTED_BY` indicates B is documentation about/explaining A.	
public static final	`IS_IDENTICAL_TO` indicates that A is identical to B, for use when there is a need to register two separate instances of the same resource	
public static final	`IS_METADATA_FOR` indicates additional metadata A for aÂ resource B.	
public static final	`IS_NEW_VERSION_OF` indicates A is a new edition of B, where the new edition has been modified or updated.	
public static final	`IS_ORIGINAL_FORM_OF` indicates A is the original form of B.	
public static final	`IS_PART_OF` indicates A is a portion of B; may be used for elements of a series.	
public static final	`IS_PREVIOUS_VERSION_OF` indicates A is a previous edition of B.	
public static final	`IS_REFERENCED_BY` indicates A is used as a source of information by B.	
public static final	`IS_REQUIRED_BY`	
public static final	`IS_REVIEWED_BY` indicates that A is reviewed by B.	
public static final	`IS_SOURCE_OF` indicates A is a source upon which B is based.	
public static final	`IS_SUPPLEMENT_TO` indicates that A is a supplement to B.	
public static final	`IS_SUPPLEMENTED_BY` indicates that B is a supplement to A.	
public static final	`IS_VARIANT_FORM_OF` indicates A is a variant or different form of B, e.g.	
public static final	`IS_VERSION_OF`	
public static final	`REFERENCES` indicates B is used as a source of information for A.	
public static final	`REQUIRES`	
public static final	`REVIEWS` indicates that A is a review of B.	

Method Summary

static `RelationType`	`fromValue`(String v) Returns the relation type from a value	

String	[value](.)()	
	Returns the value.	
static [RelationType](.)	[valueOf](.)(String name)	
static [RelationType[]](.)	[values](.)()	

Methods inherited from class `java.lang.Enum`

`clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `java.lang.Comparable`

`compareTo`

Fields

IS_CITED_BY

`public static final org.datacite.schema.kernel_4.RelationType `**`IS_CITED_BY`**

indicates that B includes A in a citation. Recommended for discovery.

```
<relatedidentifier>
   10.4232/10.ASEASâ5.2â1
</relatedidentifier>
```

CITES

`public static final org.datacite.schema.kernel_4.RelationType `**`CITES`**

indicates that A includes B in a citation. Recommended for discovery.

```
<relatedidentifier>
    0761964312
</relatedidentifier>
```

IS_SUPPLEMENT_TO

```
public static final org.datacite.schema.kernel_4.RelationType IS_SUPPLEMENT_TO
```

indicates that A is a supplement to B. Recommended for discovery.

```
<relatedidentifier>
    urn:nbn:de:0168âssoarâ13172
</relatedidentifier>
```

IS_SUPPLEMENTED_BY

```
public static final org.datacite.schema.kernel_4.RelationType IS_SUPPLEMENTED_BY
```

indicates that B is a supplement to A. Recommended for discovery.

```
<relatedidentifier>
    16911322/
</relatedidentifier>
```

IS_CONTINUED_BY

```
public static final org.datacite.schema.kernel_4.RelationType IS_CONTINUED_BY
```

indicates A is continued by the work B.

```
<relatedidentifier>
    urn:nbn:de:bsz:21âopusâ4967
</relatedidentifier>
```

CONTINUES

```
public static final org.datacite.schema.kernel_4.RelationType CONTINUES
```

indicates A is a continuation of the work B.

```
<relatedidentifier>
    urn:nbn:de:bsz:21âopusâ4967
</relatedidentifier>
```

IS_NEW_VERSION_OF

```
public static final org.datacite.schema.kernel_4.RelationType IS_NEW_VERSION_OF
```

indicates A is a new edition of B, where the new edition has been modified or updated.

```
<relatedidentifier>
    10.5438/0005
</relatedidentifier>
```

IS_PREVIOUS_VERSION_OF

```
public static final org.datacite.schema.kernel_4.RelationType IS_PREVIOUS_VERSION_OF
```

indicates A is a previous edition of B.

```
<relatedidentifier>
   10.5438/0007
</relatedidentifier>
```

IS_PART_OF

public static final org.datacite.schema.kernel_4.RelationType **IS_PART_OF**

indicates A is a portion of B; may be used for elements of a series. Recommended for discovery.

```
<relatedidentifier>
   0â486â27557â4
</relatedidentifier>
```

HAS_PART

public static final org.datacite.schema.kernel_4.RelationType **HAS_PART**

indicates A includes the part B. Recommended for discovery.

```
<relatedidentifier>
   10.1234/7894
</relatedidentifier>
```

IS_REFERENCED_BY

public static final org.datacite.schema.kernel_4.RelationType **IS_REFERENCED_BY**

indicates A is used as a source of information by B.

```
<relatedidentifier>
   http://www.testpubl.de
</relatedidentifier>
```

REFERENCES

`public static final org.datacite.schema.kernel_4.RelationType` **REFERENCES**

indicates B is used as a source of information for A.

```
<relatedidentifier>
   urn:nbn:de:bsz:21âopusâ963
</relatedidentifier>
```

IS_DOCUMENTED_BY

`public static final org.datacite.schema.kernel_4.RelationType` **IS_DOCUMENTED_BY**

indicates B is documentation about/explaining A.

```
<relatedidentifier>
   http://tobiasâlib.uniâtuebingen.de/volltexte/2000/96/
</relatedidentifier>
```

DOCUMENTS

`public static final org.datacite.schema.kernel_4.RelationType` **DOCUMENTS**

indicates A is documentation about/B.

```
<relatedidentifier>
    10.1234/7836
</relatedidentifier>
```

IS_COMPILED_BY

`public static final org.datacite.schema.kernel_4.RelationType` **IS_COMPILED_BY**

indicates B is used to compile or create A.

```
<relatedidentifier>
   http://dânb.info/gnd/4513749â3
</relatedidentifier>
```

COMPILES

`public static final org.datacite.schema.kernel_4.RelationType` **COMPILES**

indicates B is the result of a compile or creation event using A.

```
<relatedidentifier>
   urn:nbn:de:bsz:21âopusâ963
</relatedidentifier>
```

IS_VARIANT_FORM_OF

`public static final org.datacite.schema.kernel_4.RelationType` **IS_VARIANT_FORM_OF**

indicates A is a variant or different form of B, e.g. calculated or calibrated form or different packaging

```
<relatedidentifier>
   10.1234/8675
</relatedidentifier>
```

Use for a different form of one thing.

IS_ORIGINAL_FORM_OF

public static final org.datacite.schema.kernel_4.RelationType **IS_ORIGINAL_FORM_OF**

indicates A is the original form of B.

```
<relatedidentifier>
  10.1234/9035
</relatedidentifier>
```

IS_IDENTICAL_TO

public static final org.datacite.schema.kernel_4.RelationType **IS_IDENTICAL_TO**

indicates that A is identical to B, for use when there is a need to register two separate instances of the same resource

```
<relatedidentifier>
   http://oac.cdlib.org/findaid/ark:/13030/c8r78fzq
</relatedidentifier>
```

IsIdenticalTo should be used for a resource that is the same as the registered resource but is saved on another location, maybe another institution.

HAS_METADATA

public static final org.datacite.schema.kernel_4.RelationType **HAS_METADATA**

indicates resource A has additional metadata B.

```
<relatedidentifier>
   10.1234/567890
</relatedidentifier>
```

IS_METADATA_FOR

```
public static final org.datacite.schema.kernel_4.RelationType IS_METADATA_FOR
```

indicates additional metadata A for aÂ resource B.

```
<relatedidentifier>
   10.1234/567891
</relatedidentifier>
```

REVIEWS

```
public static final org.datacite.schema.kernel_4.RelationType REVIEWS
```

indicates that A is a review of B.

```
<relatedidentifier>
   10.12688/f1000research.4001.1
</relatedidentifier>
```

IS_REVIEWED_BY

```
public static final org.datacite.schema.kernel_4.RelationType IS_REVIEWED_BY
```

indicates that A is reviewed by B.

```
<relatedidentifier>
    10.5256/F1000RESEARCH.4288.R4745
</relatedidentifier>
```

IS_DERIVED_FROM

`public static final org.datacite.schema.kernel_4.RelationType` **IS_DERIVED_FROM**

indicates B is a source upon which A is based.

```
<relatedidentifier>
    10.6078/M7DZ067C
</relatedidentifier>
```

IsDerivedFrom should be used for a resource that is a derivative of an original resource. In this example, the dataset is derived from a larger dataset andÂ Â data values have been manipulated from their original state.

IS_SOURCE_OF

`public static final org.datacite.schema.kernel_4.RelationType` **IS_SOURCE_OF**

indicates A is a source upon which B is based.

```
<relatedidentifier>
    http://opencontext.org/projects/81204AF8â127Câ4686âE9B0â1202C3A47959
</relatedidentifier>
```

IsSourceOf is the original resource from which a derivative resource was created. In this example, this is the original dataset without value manipulation, and the source of the derived dataset.Â Â

DESCRIBES

`public static final org.datacite.schema.kernel_4.RelationType` **DESCRIBES**

IS_DESCRIBED_BY

public static final org.datacite.schema.kernel_4.RelationType **IS_DESCRIBED_BY**

HAS_VERSION

public static final org.datacite.schema.kernel_4.RelationType **HAS_VERSION**

IS_VERSION_OF

public static final org.datacite.schema.kernel_4.RelationType **IS_VERSION_OF**

REQUIRES

public static final org.datacite.schema.kernel_4.RelationType **REQUIRES**

IS_REQUIRED_BY

public static final org.datacite.schema.kernel_4.RelationType **IS_REQUIRED_BY**

Methods

values

public static [RelationType[]](#) **values**()

valueOf

public static [RelationType](#) **valueOf**(String name)

value

public String **value**()

Returns the value.

Returns:
the value

fromValue

public static [RelationType](#) **fromValue**(String v)

Returns the relation type from a value

Parameters:
v - value

Returns:
the relation type

org.datacite.schema.kernel_4
Class Resource

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource
```

public class **Resource**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```xml
 <complexType>
   <complexContent>
     <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
       <all>
         <element name="identifier">
           <complexType>
             <simpleContent>
               <extension base="<http://datacite.org/schema/kernel-4>doiType">
                 <attribute name="identifierType" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" fixed="DOI" />
               </extension>
             </simpleContent>
           </complexType>
         </element>
         <element name="creators">
           <complexType>
             <complexContent>
               <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                 <sequence>
                   <element name="creator" maxOccurs="unbounded">
                     <complexType>
                       <complexContent>
                         <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                           <sequence>
                             <element name="creatorName">
                               <complexType>
                                 <simpleContent>
                                   <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                                     <attribute name="nameType"
type="{http://datacite.org/schema/kernel-4}nameType" />
                                   </extension>
                                 </simpleContent>
                               </complexType>
                             </element>
                             <element name="givenName"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                             <element name="familyName"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                             <element name="nameIdentifier" maxOccurs="unbounded"
minOccurs="0">
                               <complexType>
                                 <simpleContent>
                                   <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                                     <attribute name="nameIdentifierScheme" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                                     <attribute name="schemeURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                                   </extension>
                                 </simpleContent>
```

```
                                </complexType>
                            </element>
                            <element name="affiliation"
type="{http://www.w3.org/2001/XMLSchema}anyType" maxOccurs="unbounded" minOccurs="0"/>
                        </sequence>
                    </restriction>
                </complexContent>
            </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
</element>
<element name="titles">
  <complexType>
    <complexContent>
      <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
        <sequence>
          <element name="title" maxOccurs="unbounded">
            <complexType>
              <simpleContent>
                <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                  <attribute name="titleType"
type="{http://datacite.org/schema/kernel-4}titleType" />
                  <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
                </extension>
              </simpleContent>
            </complexType>
          </element>
        </sequence>
      </restriction>
    </complexContent>
  </complexType>
</element>
<element name="publisher">
  <simpleType>
    <restriction base="{http://datacite.org/schema/kernel-
4}nonemptycontentStringType">
    </restriction>
  </simpleType>
</element>
<element name="publicationYear">
  <simpleType>
    <restriction base="{http://datacite.org/schema/kernel-4}yearType">
    </restriction>
  </simpleType>
</element>
<element name="resourceType">
  <complexType>
```

```
            <simpleContent>
              <extension base="<http://www.w3.org/2001/XMLSchema>string">
                <attribute name="resourceTypeGeneral" use="required"
type="{http://datacite.org/schema/kernel-4}resourceType" />
              </extension>
            </simpleContent>
          </complexType>
        </element>
        <element name="subjects" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="subject" maxOccurs="unbounded" minOccurs="0">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://www.w3.org/2001/XMLSchema>string">
                          <attribute name="subjectScheme"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                          <attribute name="schemeURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                          <attribute name="valueURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                          <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                </sequence>
              </restriction>
            </complexContent>
          </complexType>
        </element>
        <element name="contributors" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="contributor" maxOccurs="unbounded" minOccurs="0">
                    <complexType>
                      <complexContent>
                        <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                          <sequence>
                            <element name="contributorName">
                              <complexType>
                                <simpleContent>
                                  <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                                    <attribute name="nameType"
type="{http://datacite.org/schema/kernel-4}nameType" />
                                  </extension>
```

```
                                          </simpleContent>
                                        </complexType>
                                      </element>
                                      <element name="givenName"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                                      <element name="familyName"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                                      <element name="nameIdentifier" maxOccurs="unbounded"
minOccurs="0">
                                        <complexType>
                                          <simpleContent>
                                            <extension
base="<http://www.w3.org/2001/XMLSchema>string">
                                              <attribute name="nameIdentifierScheme" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                                              <attribute name="schemeURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                                            </extension>
                                          </simpleContent>
                                        </complexType>
                                      </element>
                                      <element name="affiliation"
type="{http://www.w3.org/2001/XMLSchema}anyType" maxOccurs="unbounded" minOccurs="0"/>
                                    </sequence>
                                    <attribute name="contributorType" use="required"
type="{http://datacite.org/schema/kernel-4}contributorType" />
                                  </restriction>
                                </complexContent>
                              </complexType>
                            </element>
                          </sequence>
                        </restriction>
                      </complexContent>
                    </complexType>
                  </element>
                  <element name="dates" minOccurs="0">
                    <complexType>
                      <complexContent>
                        <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                          <sequence>
                            <element name="date" maxOccurs="unbounded" minOccurs="0">
                              <complexType>
                                <simpleContent>
                                  <extension base="<http://www.w3.org/2001/XMLSchema>string">
                                    <attribute name="dateType" use="required"
type="{http://datacite.org/schema/kernel-4}dateType" />
                                    <attribute name="dateInformation"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                                  </extension>
                                </simpleContent>
                              </complexType>
```

```
                    </element>
                  </sequence>
                </restriction>
              </complexContent>
            </complexType>
          </element>
          <element name="language" type="{http://www.w3.org/2001/XMLSchema}language"
minOccurs="0"/>
          <element name="alternateIdentifiers" minOccurs="0">
            <complexType>
              <complexContent>
                <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                  <sequence>
                    <element name="alternateIdentifier" maxOccurs="unbounded" minOccurs="0">
                      <complexType>
                        <simpleContent>
                          <extension base="<http://www.w3.org/2001/XMLSchema>string">
                            <attribute name="alternateIdentifierType" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                          </extension>
                        </simpleContent>
                      </complexType>
                    </element>
                  </sequence>
                </restriction>
              </complexContent>
            </complexType>
          </element>
          <element name="relatedIdentifiers" minOccurs="0">
            <complexType>
              <complexContent>
                <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                  <sequence>
                    <element name="relatedIdentifier" maxOccurs="unbounded" minOccurs="0">
                      <complexType>
                        <simpleContent>
                          <extension base="<http://www.w3.org/2001/XMLSchema>string">
                            <attribute name="resourceTypeGeneral"
type="{http://datacite.org/schema/kernel-4}resourceType" />
                            <attribute name="relatedIdentifierType" use="required"
type="{http://datacite.org/schema/kernel-4}relatedIdentifierType" />
                            <attribute name="relationType" use="required"
type="{http://datacite.org/schema/kernel-4}relationType" />
                            <attribute name="relatedMetadataScheme"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                            <attribute name="schemeURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                            <attribute name="schemeType"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                          </extension>
                        </simpleContent>
```

```xml
                    </complexType>
                  </element>
                </sequence>
              </restriction>
            </complexContent>
          </complexType>
        </element>
        <element name="sizes" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="size" type="{http://www.w3.org/2001/XMLSchema}string"
maxOccurs="unbounded" minOccurs="0"/>
                </sequence>
              </restriction>
            </complexContent>
          </complexType>
        </element>
        <element name="formats" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="format" type="{http://www.w3.org/2001/XMLSchema}string"
maxOccurs="unbounded" minOccurs="0"/>
                </sequence>
              </restriction>
            </complexContent>
          </complexType>
        </element>
        <element name="version" type="{http://www.w3.org/2001/XMLSchema}string"
minOccurs="0"/>
        <element name="rightsList" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="rights" maxOccurs="unbounded" minOccurs="0">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://www.w3.org/2001/XMLSchema>string">
                          <attribute name="rightsURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                          <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                </sequence>
              </restriction>
```

```
              </complexContent>
            </complexType>
          </element>
          <element name="descriptions" minOccurs="0">
            <complexType>
              <complexContent>
                <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                  <sequence>
                    <element name="description" maxOccurs="unbounded" minOccurs="0">
                      <complexType>
                        <complexContent>
                          <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                            <choice>
                              <element name="br" maxOccurs="unbounded" minOccurs="0">
                                <simpleType>
                                  <restriction
base="{http://www.w3.org/2001/XMLSchema}string">
                                    <length value="0"/>
                                  </restriction>
                                </simpleType>
                              </element>
                            </choice>
                            <attribute name="descriptionType" use="required"
type="{http://datacite.org/schema/kernel-4}descriptionType" />
                            <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
                          </restriction>
                        </complexContent>
                      </complexType>
                    </element>
                  </sequence>
                </restriction>
              </complexContent>
            </complexType>
          </element>
          <element name="geoLocations" minOccurs="0">
            <complexType>
              <complexContent>
                <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                  <sequence>
                    <element name="geoLocation" maxOccurs="unbounded" minOccurs="0">
                      <complexType>
                        <complexContent>
                          <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                            <choice maxOccurs="unbounded">
                              <element name="geoLocationPlace"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                              <element name="geoLocationPoint"
type="{http://datacite.org/schema/kernel-4}point" minOccurs="0"/>
                              <element name="geoLocationBox"
type="{http://datacite.org/schema/kernel-4}box" minOccurs="0"/>
                              <element name="geoLocationPolygon" maxOccurs="unbounded"
```

```
minOccurs="0">
                                <complexType>
                                  <complexContent>
                                    <restriction
base="{http://www.w3.org/2001/XMLSchema}anyType">
                                      <sequence>
                                        <element name="polygonPoint"
type="{http://datacite.org/schema/kernel-4}point" maxOccurs="unbounded" minOccurs="4"/>
                                        <element name="inPolygonPoint"
type="{http://datacite.org/schema/kernel-4}point" minOccurs="0"/>
                                      </sequence>
                                    </restriction>
                                  </complexContent>
                                </complexType>
                              </element>
                            </choice>
                          </restriction>
                        </complexContent>
                      </complexType>
                    </element>
                  </sequence>
                </restriction>
              </complexContent>
            </complexType>
          </element>
          <element name="fundingReferences" minOccurs="0">
            <complexType>
              <complexContent>
                <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                  <sequence>
                    <element name="fundingReference" maxOccurs="unbounded" minOccurs="0">
                      <complexType>
                        <complexContent>
                          <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                            <all>
                              <element name="funderName">
                                <simpleType>
                                  <restriction base="{http://datacite.org/schema/kernel-
4}nonemptycontentStringType">
                                  </restriction>
                                </simpleType>
                              </element>
                              <element name="funderIdentifier" minOccurs="0">
                                <complexType>
                                  <simpleContent>
                                    <extension
base="<http://www.w3.org/2001/XMLSchema>string">
                                      <attribute name="funderIdentifierType" use="required"
type="{http://datacite.org/schema/kernel-4}funderIdentifierType" />
                                    </extension>
                                  </simpleContent>
```

```
                                      </complexType>
                                    </element>
                                    <element name="awardNumber" minOccurs="0">
                                      <complexType>
                                        <simpleContent>
                                          <extension
base="<http://www.w3.org/2001/XMLSchema>string">
                                            <attribute name="awardURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                                          </extension>
                                        </simpleContent>
                                      </complexType>
                                    </element>
                                    <element name="awardTitle" minOccurs="0">
                                      <simpleType>
                                        <restriction base="{http://datacite.org/schema/kernel-
4}nonemptycontentStringType">
                                        </restriction>
                                      </simpleType>
                                    </element>
                                  </all>
                              </restriction>
                            </complexContent>
                          </complexType>
                        </element>
                    </sequence>
                  </restriction>
                </complexContent>
              </complexType>
            </element>
          </all>
      </restriction>
    </complexContent>
  </complexType>
</complexType>
```

Nested Class Summary

class	[Resource.AlternateIdentifiers](#) Resource.AlternateIdentifiers
class	[Resource.Contributors](#) Resource.Contributors
class	[Resource.Creators](#) Resource.Creators
class	[Resource.Dates](#) Resource.Dates
class	[Resource.Descriptions](#) Resource.Descriptions

class	`Resource.Formats`
	Resource.Formats
class	`Resource.FundingReferences`
	Resource.FundingReferences
class	`Resource.GeoLocations`
	Resource.GeoLocations
class	`Resource.Identifier`
	Resource.Identifier
class	`Resource.RelatedIdentifiers`
	Resource.RelatedIdentifiers
class	`Resource.ResourceType`
	Resource.ResourceType
class	`Resource.RightsList`
	Resource.RightsList
class	`Resource.Sizes`
	Resource.Sizes
class	`Resource.Subjects`
	Resource.Subjects
class	`Resource.Titles`
	Resource.Titles

Field Summary

protected	`alternateIdentifiers`
protected	`contributors`
protected	`creators`
protected	`dates`
protected	`descriptions`
protected	`formats`
protected	`fundingReferences`
protected	`geoLocations`
protected	`identifier`
protected	`language`
protected	`publicationYear`

protected	publisher	
protected	relatedIdentifiers	
protected	resourceType	
protected	rightsList	
protected	sizes	
protected	subjects	
protected	titles	
protected	version	

Constructor Summary

public	Resource()

Method Summary

Resource.AlternateIdentifiers	getAlternateIdentifiers() Gets the value of the alternateIdentifiers property.
Resource.Contributors	getContributors() Gets the value of the contributors property.
Resource.Creators	getCreators() Gets the value of the creators property.
Resource.Dates	getDates() Gets the value of the dates property.
Resource.Descriptions	getDescriptions() Gets the value of the descriptions property.
Resource.Formats	getFormats() Gets the value of the formats property.
Resource.FundingReferences	getFundingReferences() Gets the value of the fundingReferences property.
Resource.GeoLocations	getGeoLocations() Gets the value of the geoLocations property.
Resource.Identifier	getIdentifier() Gets the value of the identifier property.
String	getLanguage() Gets the value of the language property.
String	getPublicationYear() Gets the value of the publicationYear property.

String	**getPublisher**() Gets the value of the publisher property.
Resource.RelatedIdentifiers	**getRelatedIdentifiers**() Gets the value of the relatedIdentifiers property.
Resource.ResourceType	**getResourceType**() Gets the value of the resourceType property.
Resource.RightsList	**getRightsList**() Gets the value of the rightsList property.
Resource.Sizes	**getSizes**() Gets the value of the sizes property.
Resource.Subjects	**getSubjects**() Gets the value of the subjects property.
Resource.Titles	**getTitles**() Gets the value of the titles property.
String	**getVersion**() Gets the value of the version property.
void	**setAlternateIdentifiers**(Resource.AlternateIdentifiers value) Sets the value of the alternateIdentifiers property.
void	**setContributors**(Resource.Contributors value) Sets the value of the contributors property.
void	**setCreators**(Resource.Creators value) Sets the value of the creators property.
void	**setDates**(Resource.Dates value) Sets the value of the dates property.
void	**setDescriptions**(Resource.Descriptions value) Sets the value of the descriptions property.
void	**setFormats**(Resource.Formats value) Sets the value of the formats property.
void	**setFundingReferences**(Resource.FundingReferences value) Sets the value of the fundingReferences property.
void	**setGeoLocations**(Resource.GeoLocations value) Sets the value of the geoLocations property.
void	**setIdentifier**(Resource.Identifier value) Sets the value of the identifier property.
void	**setLanguage**(String value) Sets the value of the language property.
void	**setPublicationYear**(String value) Sets the value of the publicationYear property.
void	**setPublisher**(String value) Sets the value of the publisher property.

	void	setRelatedIdentifiers([Resource.RelatedIdentifiers](#) value) Sets the value of the relatedIdentifiers property.
	void	setResourceType([Resource.ResourceType](#) value) Sets the value of the resourceType property.
	void	setRightsList([Resource.RightsList](#) value) Sets the value of the rightsList property.
	void	setSizes([Resource.Sizes](#) value) Sets the value of the sizes property.
	void	setSubjects([Resource.Subjects](#) value) Sets the value of the subjects property.
	void	setTitles([Resource.Titles](#) value) Sets the value of the titles property.
	void	setVersion(String value) Sets the value of the version property.

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

identifier

protected org.datacite.schema.kernel_4.Resource.Identifier **identifier**

creators

protected org.datacite.schema.kernel_4.Resource.Creators **creators**

titles

protected org.datacite.schema.kernel_4.Resource.Titles **titles**

publisher

protected java.lang.String **publisher**

publicationYear

protected java.lang.String **publicationYear**

resourceType

`protected org.datacite.schema.kernel_4.Resource.ResourceType` **`resourceType`**

subjects

`protected org.datacite.schema.kernel_4.Resource.Subjects` **`subjects`**

contributors

`protected org.datacite.schema.kernel_4.Resource.Contributors` **`contributors`**

dates

`protected org.datacite.schema.kernel_4.Resource.Dates` **`dates`**

language

`protected java.lang.String` **`language`**

alternateIdentifiers

`protected org.datacite.schema.kernel_4.Resource.AlternateIdentifiers` **`alternateIdentifiers`**

relatedIdentifiers

`protected org.datacite.schema.kernel_4.Resource.RelatedIdentifiers` **`relatedIdentifiers`**

sizes

`protected org.datacite.schema.kernel_4.Resource.Sizes` **`sizes`**

formats

`protected org.datacite.schema.kernel_4.Resource.Formats` **`formats`**

version

```
protected java.lang.String version
```

rightsList

```
protected org.datacite.schema.kernel_4.Resource.RightsList rightsList
```

descriptions

```
protected org.datacite.schema.kernel_4.Resource.Descriptions descriptions
```

geoLocations

```
protected org.datacite.schema.kernel_4.Resource.GeoLocations geoLocations
```

fundingReferences

```
protected org.datacite.schema.kernel_4.Resource.FundingReferences fundingReferences
```

Constructors

Resource

```
public Resource()
```

Methods

getIdentifier

```
public Resource.Identifier getIdentifier()
```

Gets the value of the identifier property.

Returns:
possible object is `Resource.Identifier`

setIdentifier

```
public void setIdentifier(Resource.Identifier value)
```

Sets the value of the identifier property.

Parameters:
value - allowed object is `Resource.Identifier`

getCreators

public `Resource.Creators` **getCreators**()

Gets the value of the creators property.

Returns:
possible object is `Resource.Creators`

setCreators

public void **setCreators**(`Resource.Creators` value)

Sets the value of the creators property.

Parameters:
value - allowed object is `Resource.Creators`

getTitles

public `Resource.Titles` **getTitles**()

Gets the value of the titles property.

Returns:
possible object is `Resource.Titles`

setTitles

public void **setTitles**(`Resource.Titles` value)

Sets the value of the titles property.

Parameters:
value - allowed object is `Resource.Titles`

getPublisher

public String **getPublisher**()

Gets the value of the publisher property.

Returns:
possible object is java.lang.String

setPublisher

public void **setPublisher**(String value)

Sets the value of the publisher property.

Parameters:
value - allowed object is java.lang.String

getPublicationYear

public String **getPublicationYear**()

Gets the value of the publicationYear property.

Returns:
    possible object is `java.lang.String`

setPublicationYear

public void **setPublicationYear**(String value)

    Sets the value of the publicationYear property.

Parameters:
    `value` - allowed object is `java.lang.String`

getResourceType

public `Resource.ResourceType` **getResourceType**()

    Gets the value of the resourceType property.

Returns:
    possible object is `Resource.ResourceType`

setResourceType

public void **setResourceType**(`Resource.ResourceType` value)

    Sets the value of the resourceType property.

Parameters:
    `value` - allowed object is `Resource.ResourceType`

getSubjects

public `Resource.Subjects` **getSubjects**()

    Gets the value of the subjects property.

Returns:
    possible object is `Resource.Subjects`

setSubjects

public void **setSubjects**(`Resource.Subjects` value)

    Sets the value of the subjects property.

Parameters:
    `value` - allowed object is `Resource.Subjects`

getContributors

public `Resource.Contributors` **getContributors**()

    Gets the value of the contributors property.

Returns:
    possible object is `Resource.Contributors`

setContributors

`public void` **`setContributors`**`(`Resource.Contributors` value)`

Sets the value of the contributors property.

Parameters:
`value` - allowed object is `Resource.Contributors`

getDates

`public` `Resource.Dates` **`getDates`**`()`

Gets the value of the dates property.

Returns:
possible object is `Resource.Dates`

setDates

`public void` **`setDates`**`(`Resource.Dates` value)`

Sets the value of the dates property.

Parameters:
`value` - allowed object is `Resource.Dates`

getLanguage

`public String` **`getLanguage`**`()`

Gets the value of the language property.

Returns:
possible object is `java.lang.String`

setLanguage

`public void` **`setLanguage`**`(String value)`

Sets the value of the language property.

Parameters:
`value` - allowed object is `java.lang.String`

getAlternateIdentifiers

`public` `Resource.AlternateIdentifiers` **`getAlternateIdentifiers`**`()`

Gets the value of the alternateIdentifiers property.

Returns:
possible object is `Resource.AlternateIdentifiers`

setAlternateIdentifiers

`public void` **`setAlternateIdentifiers`**`(`Resource.AlternateIdentifiers` value)`

Sets the value of the alternateIdentifiers property.

Parameters:
    value - allowed object is `Resource.AlternateIdentifiers`

getRelatedIdentifiers

public `Resource.RelatedIdentifiers` **getRelatedIdentifiers**()

Gets the value of the relatedIdentifiers property.

Returns:
    possible object is `Resource.RelatedIdentifiers`

setRelatedIdentifiers

public void **setRelatedIdentifiers**(`Resource.RelatedIdentifiers` value)

Sets the value of the relatedIdentifiers property.

Parameters:
    value - allowed object is `Resource.RelatedIdentifiers`

getSizes

public `Resource.Sizes` **getSizes**()

Gets the value of the sizes property.

Returns:
    possible object is `Resource.Sizes`

setSizes

public void **setSizes**(`Resource.Sizes` value)

Sets the value of the sizes property.

Parameters:
    value - allowed object is `Resource.Sizes`

getFormats

public `Resource.Formats` **getFormats**()

Gets the value of the formats property.

Returns:
    possible object is `Resource.Formats`

setFormats

public void **setFormats**(`Resource.Formats` value)

Sets the value of the formats property.

Parameters:
    value - allowed object is `Resource.Formats`

getVersion

public String **getVersion**()

Gets the value of the version property.

Returns:
possible object is `java.lang.String`

setVersion

public void **setVersion**(String value)

Sets the value of the version property.

Parameters:
value - allowed object is `java.lang.String`

getRightsList

public [Resource.RightsList](#) **getRightsList**()

Gets the value of the rightsList property.

Returns:
possible object is [Resource.RightsList](#)

setRightsList

public void **setRightsList**([Resource.RightsList](#) value)

Sets the value of the rightsList property.

Parameters:
value - allowed object is [Resource.RightsList](#)

getDescriptions

public [Resource.Descriptions](#) **getDescriptions**()

Gets the value of the descriptions property.

Returns:
possible object is [Resource.Descriptions](#)

setDescriptions

public void **setDescriptions**([Resource.Descriptions](#) value)

Sets the value of the descriptions property.

Parameters:
value - allowed object is [Resource.Descriptions](#)

getGeoLocations

public [Resource.GeoLocations](#) **getGeoLocations**()

Gets the value of the geoLocations property.

Returns:
  possible object is `Resource.GeoLocations`

setGeoLocations

public void **setGeoLocations**(`Resource.GeoLocations` value)

Sets the value of the geoLocations property.

Parameters:
  value - allowed object is `Resource.GeoLocations`

getFundingReferences

public `Resource.FundingReferences` **getFundingReferences**()

Gets the value of the fundingReferences property.

Returns:
  possible object is `Resource.FundingReferences`

setFundingReferences

public void **setFundingReferences**(`Resource.FundingReferences` value)

Sets the value of the fundingReferences property.

Parameters:
  value - allowed object is `Resource.FundingReferences`

org.datacite.schema.kernel_4
Class Resource.AlternateIdentifiers

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.AlternateIdentifiers
```

public static class **Resource.AlternateIdentifiers**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="alternateIdentifier" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <simpleContent>
              <extension base="<http://www.w3.org/2001/XMLSchema>string">
                <attribute name="alternateIdentifierType" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
              </extension>
            </simpleContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	[Resource.AlternateIdentifiers.AlternateIdentifier](#)
	Resource.AlternateIdentifiers.AlternateIdentifier

Field Summary

protected	[alternateIdentifier](#)

Constructor Summary

public	[AlternateIdentifiers](#)()

Method Summary

List	[getAlternateIdentifier](#)() Gets the value of the alternateIdentifier property.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

alternateIdentifier

`protected java.util.List` **`alternateIdentifier`**

Constructors

AlternateIdentifiers

`public` **`AlternateIdentifiers`**`()`

Methods

getAlternateIdentifier

`public List` **`getAlternateIdentifier`**`()`

Gets the value of the alternateIdentifier property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the alternateIdentifier property.

For example, to add a new item, do as follows:

```
    getAlternateIdentifier().add(newItem);
```

Objects of the following type(s) are allowed in the list [Resource.AlternateIdentifiers.AlternateIdentifier](#)

Returns:
  the alternateIdentifier

org.datacite.schema.kernel_4
Class Resource.AlternateIdentifiers.AlternateIdentifier

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.AlternateIdentifiers.AlternateIdentifier
```

public static class **Resource.AlternateIdentifiers.AlternateIdentifier**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <simpleContent>
      <extension base="<http://www.w3.org/2001/XMLSchema>string">
        <attribute name="alternateIdentifierType" use="required"
 type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
      </extension>
    </simpleContent>
  </complexType>
```

Field Summary

protected	alternateIdentifierType
protected	value

Constructor Summary

public	AlternateIdentifier()

Method Summary

String	getAlternateIdentifierType() Gets the value of the alternateIdentifierType property.
String	getValue() Gets the value of the value property.
void	setAlternateIdentifierType(String value) Sets the value of the alternateIdentifierType property.
void	setValue(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

```
protected java.lang.String value
```

alternateIdentifierType

```
protected java.lang.String alternateIdentifierType
```

Constructors

AlternateIdentifier

```
public AlternateIdentifier()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:
`value` - allowed object is `java.lang.String`

getAlternateIdentifierType

```
public String getAlternateIdentifierType()
```

Gets the value of the alternateIdentifierType property.

Returns:
possible object is `java.lang.String`

setAlternateIdentifierType

public void **setAlternateIdentifierType**(String value)

Sets the value of the alternateIdentifierType property.

Parameters:

value - allowed object is java.lang.String

setAlternateIdentifierType

public void **setAlternateIdentifierType**(String value)

Sets the value of the alternateIdentifierType property.

org.datacite.schema.kernel_4
Class Resource.Contributors

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.Contributors
```

public static class **Resource.Contributors**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="contributor" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="contributorName">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                          <attribute name="nameType"
type="{http://datacite.org/schema/kernel-4}nameType" />
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                  <element name="givenName" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
                  <element name="familyName"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                  <element name="nameIdentifier" maxOccurs="unbounded" minOccurs="0">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://www.w3.org/2001/XMLSchema>string">
                          <attribute name="nameIdentifierScheme" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                          <attribute name="schemeURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                  <element name="affiliation"
type="{http://www.w3.org/2001/XMLSchema}anyType" maxOccurs="unbounded" minOccurs="0"/>
                </sequence>
                <attribute name="contributorType" use="required"
type="{http://datacite.org/schema/kernel-4}contributorType" />
              </restriction>
            </complexContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	[Resource.Contributors.Contributor](#) Resource.Contributors.Contributor

Field Summary

protected	[contributor](#)

Constructor Summary

public	[Contributors](#)()

Method Summary

List	[getContributor](#)() Gets the value of the contributor property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

contributor

protected java.util.List **contributor**

Constructors

Contributors

public **Contributors**()

Methods

getContributor

public List **getContributor**()

Gets the value of the contributor property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the contributor property.

For example, to add a new item, do as follows:

```
getContributor().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.Contributors.Contributor`

Returns:
    the contributor

org.datacite.schema.kernel_4
Class Resource.Contributors.Contributor

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.Contributors.Contributor
```

public static class **Resource.Contributors.Contributor**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <complexContent>
      <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
        <sequence>
          <element name="contributorName">
            <complexType>
              <simpleContent>
                <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                  <attribute name="nameType" type="{http://datacite.org/schema/kernel-
4}nameType" />
                </extension>
              </simpleContent>
            </complexType>
          </element>
          <element name="givenName" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
          <element name="familyName" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
          <element name="nameIdentifier" maxOccurs="unbounded" minOccurs="0">
            <complexType>
              <simpleContent>
                <extension base="<http://www.w3.org/2001/XMLSchema>string">
                  <attribute name="nameIdentifierScheme" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                  <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI"
/>
                </extension>
              </simpleContent>
            </complexType>
          </element>
          <element name="affiliation" type="{http://www.w3.org/2001/XMLSchema}anyType"
maxOccurs="unbounded" minOccurs="0"/>
        </sequence>
        <attribute name="contributorType" use="required"
type="{http://datacite.org/schema/kernel-4}contributorType" />
      </restriction>
    </complexContent>
  </complexType>
```

Nested Class Summary

class	[Resource.Contributors.Contributor.ContributorName](#) Resource.Contributors.Contributor.ContributorName
class	[Resource.Contributors.Contributor.NameIdentifier](#) Resource.Contributors.Contributor.NameIdentifier

Field Summary

protected	affiliation	
protected	contributorName	
protected	contributorType	
protected	familyName	
protected	givenName	
protected	nameIdentifier	

Constructor Summary

public	Contributor()

Method Summary

List	getAffiliation() Gets the value of the affiliation property.
Resource.Contributors.Contributor.ContributorName	getContributorName() Gets the value of the contributorName property.
ContributorType	getContributorType() Gets the value of the contributorType property.
String	getFamilyName() Gets the value of the familyName property.
String	getGivenName() Gets the value of the givenName property.
List	getNameIdentifier() Gets the value of the nameIdentifier property.
void	setContributorName(Resource.Contributors.Contributor.ContributorName value) Sets the value of the contributorName property.
void	setContributorType(ContributorType value) Sets the value of the contributorType property.
void	setFamilyName(String value) Sets the value of the familyName property.
void	setGivenName(String value) Sets the value of the givenName property.

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

contributorName

```
protected
org.datacite.schema.kernel_4.Resource.Contributors.Contributor.ContributorName
contributorName
```

givenName

```
protected java.lang.String givenName
```

familyName

```
protected java.lang.String familyName
```

nameIdentifier

```
protected java.util.List nameIdentifier
```

affiliation

```
protected java.util.List affiliation
```

contributorType

```
protected org.datacite.schema.kernel_4.ContributorType contributorType
```

Constructors

Contributor

```
public Contributor()
```

Methods

getContributorName

```
public Resource.Contributors.Contributor.ContributorName getContributorName()
```

Gets the value of the contributorName property.

Returns:
possible object is `Resource.Contributors.Contributor.ContributorName`

setContributorName

```
public void setContributorName(Resource.Contributors.Contributor.ContributorName
value)
```

Sets the value of the contributorName property.

Parameters:
value - allowed object is `Resource.Contributors.Contributor.ContributorName`

getGivenName

```
public String getGivenName()
```

Gets the value of the givenName property.

Returns:
possible object is `java.lang.String`

setGivenName

```
public void setGivenName(String value)
```

Sets the value of the givenName property.

Parameters:
value - allowed object is `java.lang.String`

getFamilyName

```
public String getFamilyName()
```

Gets the value of the familyName property.

Returns:
possible object is `java.lang.String`

setFamilyName

```
public void setFamilyName(String value)
```

Sets the value of the familyName property.

Parameters:
value - allowed object is `java.lang.String`

getNameIdentifier

```
public List getNameIdentifier()
```

Gets the value of the nameIdentifier property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the nameIdentifier property.

For example, to add a new item, do as follows:

```
getNameIdentifier().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.Contributors.Contributor.NameIdentifier`

Returns:
    the nameIdentifier

getAffiliation

public List **getAffiliation**()

Gets the value of the affiliation property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the affiliation property.

For example, to add a new item, do as follows:

```
getAffiliation().add(newItem);
```

Objects of the following type(s) are allowed in the list `java.lang.String`

Returns:
    the affiliation

getContributorType

public ContributorType **getContributorType**()

Gets the value of the contributorType property.

Returns:
    possible object is `ContributorType`

setContributorType

public void **setContributorType**(ContributorType value)

Sets the value of the contributorType property.

Parameters:
    value - allowed object is `ContributorType`

org.datacite.schema.kernel_4
Class Resource.Contributors.Contributor.ContributorName

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.Contributors.Contributor.ContributorName
```

public static class **Resource.Contributors.Contributor.ContributorName**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://datacite.org/schema/kernel-4>nonemptycontentStringType">
      <attribute name="nameType" type="{http://datacite.org/schema/kernel-4}nameType" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	[nameType](#)
protected	[value](#)

Constructor Summary

public	[ContributorName](#)()

Method Summary

[NameType](#)	[getNameType](#)() Gets the value of the nameType property.
String	[getValue](#)() Gets the value of the value property.
void	[setNameType](#)([NameType](#) value) Sets the value of the nameType property.
void	[setValue](#)(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

```
protected java.lang.String value
```

nameType

```
protected org.datacite.schema.kernel_4.NameType nameType
```

Constructors

ContributorName

```
public ContributorName()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:
`value` - allowed object is `java.lang.String`

getNameType

```
public NameType getNameType()
```

Gets the value of the nameType property.

Returns:
possible object is `NameType`

setNameType

```
public void setNameType(NameType value)
```

> Sets the value of the nameType property.

> **Parameters:**
>> value - allowed object is NameType

setNameType

```
public void setNameType(NameType value)
```

org.datacite.schema.kernel_4
Class Resource.Contributors.Contributor.NameIdentifier

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.Contributors.Contributor.NameIdentifier
```

public static class **Resource.Contributors.Contributor.NameIdentifier**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
 <complexType>
   <simpleContent>
     <extension base="<http://www.w3.org/2001/XMLSchema>string">
       <attribute name="nameIdentifierScheme" use="required"
 type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
       <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
     </extension>
   </simpleContent>
 </complexType>
```

Field Summary

protected	[nameIdentifierScheme](#)
protected	[schemeURI](#)
protected	[value](#)

Constructor Summary

public	[NameIdentifier](#)()

Method Summary

String	[getNameIdentifierScheme](#)() Gets the value of the nameIdentifierScheme property.
String	[getSchemeURI](#)() Gets the value of the schemeURI property.
String	[getValue](#)() Gets the value of the value property.

	void	[setNameIdentifierScheme](String value) Sets the value of the nameIdentifierScheme property.
	void	[setSchemeURI](String value) Sets the value of the schemeURI property.
	void	[setValue](String value) Sets the value of the value property.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

`protected java.lang.String` **`value`**

nameIdentifierScheme

`protected java.lang.String` **`nameIdentifierScheme`**

schemeURI

`protected java.lang.String` **`schemeURI`**

Constructors

NameIdentifier

`public` **`NameIdentifier`**`()`

Methods

getValue

`public String` **`getValue`**`()`

Gets the value of the value property.

Returns:
        possible object is `java.lang.String`

setValue

public void **setValue**(String value)

Sets the value of the value property.

Parameters:
value - allowed object is `java.lang.String`

getNameIdentifierScheme

public String **getNameIdentifierScheme**()

Gets the value of the nameIdentifierScheme property.

Returns:
possible object is `java.lang.String`

setNameIdentifierScheme

public void **setNameIdentifierScheme**(String value)

Sets the value of the nameIdentifierScheme property.

Parameters:
value - allowed object is `java.lang.String`

getSchemeURI

public String **getSchemeURI**()

Gets the value of the schemeURI property.

Returns:
possible object is `java.lang.String`

setSchemeURI

public void **setSchemeURI**(String value)

Sets the value of the schemeURI property.

Parameters:
value - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.Creators

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.Creators
```

public static class **Resource.Creators**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="creator" maxOccurs="unbounded">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="creatorName">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                          <attribute name="nameType"
type="{http://datacite.org/schema/kernel-4}nameType" />
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                  <element name="givenName" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
                  <element name="familyName"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                  <element name="nameIdentifier" maxOccurs="unbounded" minOccurs="0">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                          <attribute name="nameIdentifierScheme" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                          <attribute name="schemeURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                  <element name="affiliation"
type="{http://www.w3.org/2001/XMLSchema}anyType" maxOccurs="unbounded" minOccurs="0"/>
                </sequence>
              </restriction>
            </complexContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	[Resource.Creators.Creator](#) Resource.Creators.Creator

Field Summary

protected	[creator](#)

Constructor Summary

public	[Creators](#)()

Method Summary

List	[getCreator](#)() Gets the value of the creator property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

creator

protected java.util.List **creator**

Constructors

Creators

public **Creators**()

Methods

getCreator

public List **getCreator**()

Gets the value of the creator property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the creator property.

For example, to add a new item, do as follows:

```
getCreator().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.Creators.Creator`

Returns:
    the creator

org.datacite.schema.kernel_4
Class Resource.Creators.Creator

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.Creators.Creator
```

public static class **Resource.Creators.Creator**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
 <complexType>
   <complexContent>
     <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
       <sequence>
         <element name="creatorName">
           <complexType>
             <simpleContent>
               <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                 <attribute name="nameType" type="{http://datacite.org/schema/kernel-
4}nameType" />
               </extension>
             </simpleContent>
           </complexType>
         </element>
         <element name="givenName" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
         <element name="familyName" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
         <element name="nameIdentifier" maxOccurs="unbounded" minOccurs="0">
           <complexType>
             <simpleContent>
               <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                 <attribute name="nameIdentifierScheme" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                 <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI"
/>
               </extension>
             </simpleContent>
           </complexType>
         </element>
         <element name="affiliation" type="{http://www.w3.org/2001/XMLSchema}anyType"
maxOccurs="unbounded" minOccurs="0"/>
       </sequence>
     </restriction>
   </complexContent>
 </complexType>
```

Nested Class Summary

class	[Resource.Creators.Creator.CreatorName](#) Resource.Creators.Creator.CreatorName
class	[Resource.Creators.Creator.NameIdentifier](#) Resource.Creators.Creator.NameIdentifier

Field Summary

protected	[affiliation](#)
protected	[creatorName](#)
protected	[familyName](#)
protected	[givenName](#)
protected	[nameIdentifier](#)

Constructor Summary

public	[Creator](#)()

Method Summary

List	[getAffiliation](#)() Gets the value of the affiliation property.
[Resource.Creators.Creator.CreatorName](#)	[getCreatorName](#)() Gets the value of the creatorName property.
String	[getFamilyName](#)() Gets the value of the familyName property.
String	[getGivenName](#)() Gets the value of the givenName property.
List	[getNameIdentifier](#)() Gets the value of the nameIdentifier property.
void	[setCreatorName](#)([Resource.Creators.Creator.CreatorName](#) value) Sets the value of the creatorName property.
void	[setFamilyName](#)(String value) Sets the value of the familyName property.
void	[setGivenName](#)(String value) Sets the value of the givenName property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

creatorName

protected org.datacite.schema.kernel_4.Resource.Creators.Creator.CreatorName
creatorName

givenName

`protected java.lang.String` **`givenName`**

familyName

`protected java.lang.String` **`familyName`**

nameIdentifier

`protected java.util.List` **`nameIdentifier`**

affiliation

`protected java.util.List` **`affiliation`**

Constructors

Creator

`public` **`Creator`**`()`

Methods

getCreatorName

`public` [`Resource.Creators.Creator.CreatorName`](#) **`getCreatorName`**`()`

Gets the value of the creatorName property.

Returns:
possible object is [`Resource.Creators.Creator.CreatorName`](#)

setCreatorName

`public void` **`setCreatorName`**`(`[`Resource.Creators.Creator.CreatorName`](#) `value)`

Sets the value of the creatorName property.

Parameters:
value - allowed object is [`Resource.Creators.Creator.CreatorName`](#)

getGivenName

`public String` **`getGivenName`**`()`

Gets the value of the givenName property.

Returns:
    possible object is `java.lang.Object`

setGivenName

```
public void setGivenName(String value)
```

  Sets the value of the givenName property.

Parameters:
    `value` - allowed object is `java.lang.String`

getFamilyName

```
public String getFamilyName()
```

  Gets the value of the familyName property.

Returns:
    possible object is `java.lang.String`

setFamilyName

```
public void setFamilyName(String value)
```

  Sets the value of the familyName property.

Parameters:
    `value` - allowed object is `java.lang.String`

getNameIdentifier

```
public List getNameIdentifier()
```

  Gets the value of the nameIdentifier property.

  This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the nameIdentifier property.

  For example, to add a new item, do as follows:

```
getNameIdentifier().add(newItem);
```

  Objects of the following type(s) are allowed in the list `Resource.Creators.Creator.NameIdentifier`

Returns:
    the nameIdentifier

getAffiliation

```
public List getAffiliation()
```

Gets the value of the affiliation property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the affiliation property.

For example, to add a new item, do as follows:

```
getAffiliation().add(newItem);
```

Objects of the following type(s) are allowed in the list `java.lang.String`

Returns:
    the affiliation

org.datacite.schema.kernel_4
Class Resource.Creators.Creator.CreatorName

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.Creators.Creator.CreatorName
```

public static class **Resource.Creators.Creator.CreatorName**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://datacite.org/schema/kernel-4>nonemptycontentStringType">
      <attribute name="nameType" type="{http://datacite.org/schema/kernel-4}nameType" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	[nameType](#)
protected	[value](#)

Constructor Summary

public	[CreatorName](#)()

Method Summary

[NameType](#)	[getNameType](#)() Gets the value of the nameType property.
String	[getValue](#)() Gets the value of the value property.
void	[setNameType](#)([NameType](#) value) Sets the value of the nameType property.
void	[setValue](#)(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

```
protected java.lang.String value
```

nameType

```
protected org.datacite.schema.kernel_4.NameType nameType
```

Constructors

CreatorName

```
public CreatorName()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:
`value` - allowed object is `java.lang.String`

getNameType

```
public NameType getNameType()
```

Gets the value of the nameType property.

Returns:
possible object is `NameType`

setNameType

```
public void setNameType(NameType value)
```

Sets the value of the nameType property.

Parameters:
      `value` - allowed object is [NameType](#)

setNameType

```
public void setNameType(NameType value)
```

org.datacite.schema.kernel_4
Class Resource.Creators.Creator.NameIdentifier

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.Creators.Creator.NameIdentifier
```

public static class **Resource.Creators.Creator.NameIdentifier**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <simpleContent>
      <extension base="<http://datacite.org/schema/kernel-4>nonemptycontentStringType">
        <attribute name="nameIdentifierScheme" use="required"
 type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
        <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
      </extension>
    </simpleContent>
  </complexType>
```

Field Summary

protected	nameIdentifierScheme
protected	schemeURI
protected	value

Constructor Summary

public	NameIdentifier()

Method Summary

String	getNameIdentifierScheme() Gets the value of the nameIdentifierScheme property.
String	getSchemeURI() Gets the value of the schemeURI property.
String	getValue() Gets the value of the value property.

void	[setNameIdentifierScheme](String value) 　　Sets the value of the nameIdentifierScheme property.
void	[setSchemeURI](String value) 　　Sets the value of the schemeURI property.
void	[setValue](String value) 　　Sets the value of the value property.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

`protected java.lang.String `**`value`**

nameIdentifierScheme

`protected java.lang.String `**`nameIdentifierScheme`**

schemeURI

`protected java.lang.String `**`schemeURI`**

Constructors

NameIdentifier

`public `**`NameIdentifier`**`()`

Methods

getValue

`public String `**`getValue`**`()`

　　Gets the value of the value property.

Returns:
　　　　possible object is `java.lang.String`

(continued from last page)

setValue

public void **setValue**(String value)

Sets the value of the value property.

Parameters:
value - allowed object is `java.lang.String`

getNameIdentifierScheme

public String **getNameIdentifierScheme**()

Gets the value of the nameIdentifierScheme property.

Returns:
possible object is `java.lang.String`

setNameIdentifierScheme

public void **setNameIdentifierScheme**(String value)

Sets the value of the nameIdentifierScheme property.

Parameters:
value - allowed object is `java.lang.String`

getSchemeURI

public String **getSchemeURI**()

Gets the value of the schemeURI property.

Returns:
possible object is `java.lang.String`

setSchemeURI

public void **setSchemeURI**(String value)

Sets the value of the schemeURI property.

Parameters:
value - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.Dates

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.Dates
```

public static class **Resource.Dates**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <complexContent>
      <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
        <sequence>
          <element name="date" maxOccurs="unbounded" minOccurs="0">
            <complexType>
              <simpleContent>
                <extension base="<http://www.w3.org/2001/XMLSchema>string">
                  <attribute name="dateType" use="required"
type="{http://datacite.org/schema/kernel-4}dateType" />
                  <attribute name="dateInformation"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                </extension>
              </simpleContent>
            </complexType>
          </element>
        </sequence>
      </restriction>
    </complexContent>
  </complexType>
```

Nested Class Summary

class	[Resource.Dates.Date](#) Resource.Dates.Date

Field Summary

protected	[date](#)

Constructor Summary

public	[Dates](#)()

Method Summary

List	[getDate](#)() Gets the value of the date property.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

date

`protected java.util.List` **date**

Constructors

Dates

`public` **Dates**`()`

Methods

getDate

`public List` **getDate**`()`

Gets the value of the date property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the date property.

For example, to add a new item, do as follows:

```
    getDate().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.Dates.Date`

Returns:
    the date

org.datacite.schema.kernel_4
Class Resource.Dates.Date

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.Dates.Date
```

public static class **Resource.Dates.Date**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <simpleContent>
      <extension base="<http://www.w3.org/2001/XMLSchema>string">
        <attribute name="dateType" use="required" type="{http://datacite.org/schema/kernel-
4}dateType" />
        <attribute name="dateInformation"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
      </extension>
    </simpleContent>
  </complexType>
```

Field Summary

protected	dateInformation	
protected	dateType	
protected	value	

Constructor Summary

public	Date()	

Method Summary

String	getDateInformation() Gets the value of the dateInformation property.	
DateType	getDateType() Gets the value of the dateType property.	
String	getValue() Gets the value of the value property.	

void	[setDateInformation](String value) Sets the value of the dateInformation property.	
void	[setDateType]([DateType] value) Sets the value of the dateType property.	
void	[setValue](String value) Sets the value of the value property.	

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

value

`protected java.lang.String` **`value`**

dateType

`protected org.datacite.schema.kernel_4.DateType` **`dateType`**

dateInformation

`protected java.lang.String` **`dateInformation`**

Constructors

Date

`public` **`Date`**`()`

Methods

getValue

`public String` **`getValue`**`()`

   Gets the value of the value property.

Returns:
      possible object is `java.lang.String`

setValue

public void **setValue**(String value)

Sets the value of the value property.

Parameters:
value - allowed object is `java.lang.String`

getDateType

public [DateType](#) **getDateType**()

Gets the value of the dateType property.

Returns:
possible object is [DateType](#)

setDateType

public void **setDateType**([DateType](#) value)

Sets the value of the dateType property.

Parameters:
value - allowed object is [DateType](#)

getDateInformation

public String **getDateInformation**()

Gets the value of the dateInformation property.

Returns:
possible object is `java.lang.String`

setDateInformation

public void **setDateInformation**(String value)

Sets the value of the dateInformation property.

Parameters:
value - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.Descriptions

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.Descriptions
```

public static class **Resource.Descriptions**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="description" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <choice>
                  <element name="br" maxOccurs="unbounded" minOccurs="0">
                    <simpleType>
                      <restriction base="{http://www.w3.org/2001/XMLSchema}string">
                        <length value="0"/>
                      </restriction>
                    </simpleType>
                  </element>
                </choice>
                <attribute name="descriptionType" use="required"
 type="{http://datacite.org/schema/kernel-4}descriptionType" />
                <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
              </restriction>
            </complexContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	[Resource.Descriptions.Description](#) Resource.Descriptions.Description

Field Summary

protected	[description](#)

Constructor Summary

public	[Descriptions](#)()

Method Summary

List	[getDescription](#)() Gets the value of the description property.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

description

```
protected java.util.List description
```

Constructors

Descriptions

```
public Descriptions()
```

Methods

getDescription

```
public List getDescription()
```

Gets the value of the description property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the description property.

For example, to add a new item, do as follows:

```
getDescription().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.Descriptions.Description`

Returns:
the description

org.datacite.schema.kernel_4
Class Resource.Descriptions.Description

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.Descriptions.Description
```

public static class **Resource.Descriptions.Description**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <choice>
        <element name="br" maxOccurs="unbounded" minOccurs="0">
          <simpleType>
            <restriction base="{http://www.w3.org/2001/XMLSchema}string">
              <length value="0"/>
            </restriction>
          </simpleType>
        </element>
      </choice>
      <attribute name="descriptionType" use="required"
 type="{http://datacite.org/schema/kernel-4}descriptionType" />
      <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
    </restriction>
  </complexContent>
</complexType>
```

Field Summary

protected	content
protected	descriptionType
protected	lang

Constructor Summary

public	Description()

Method Summary

List	[getContent](#)()	
	Gets the value of the content property.	
[DescriptionType](#)	[getDescriptionType](#)()	
	Gets the value of the descriptionType property.	
String	[getLang](#)()	
	Gets the value of the lang property.	
void	[setDescriptionType](#)([DescriptionType](#) value)	
	Sets the value of the descriptionType property.	
void	[setLang](#)(String value)	
	Sets the value of the lang property.	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

content

protected java.util.List **content**

descriptionType

protected org.datacite.schema.kernel_4.DescriptionType **descriptionType**

lang

protected java.lang.String **lang**

Constructors

Description

public **Description**()

Methods

getContent

public List **getContent**()

Gets the value of the content property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the content property.

For example, to add a new item, do as follows:

```
    getContent().add(newItem);
```

Objects of the following type(s) are allowed in the list null null null null null null
`javax.xml.bind.JAXBElement<<code>java.lang.String> java.lang.String`
`javax.xml.bind.JAXBElement<<code>java.lang.String>`

Returns:
    the content

---

getDescriptionType

public [DescriptionType](#) **getDescriptionType**()

Gets the value of the descriptionType property.

Returns:
    possible object is [DescriptionType](#)

---

setDescriptionType

public void **setDescriptionType**([DescriptionType](#) value)

Sets the value of the descriptionType property.

Parameters:
    value - allowed object is [DescriptionType](#)

---

getLang

public String **getLang**()

Gets the value of the lang property.

Returns:
    possible object is `java.lang.String`

---

setLang

public void **setLang**(String value)

Sets the value of the lang property.

Parameters:
    value - allowed object is `java.lang.String`

---

org.datacite.schema.kernel_4
Class Resource.Formats

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.Formats
```

public static class **Resource.Formats**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <complexContent>
      <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
        <sequence>
          <element name="format" type="{http://www.w3.org/2001/XMLSchema}string"
 maxOccurs="unbounded" minOccurs="0"/>
        </sequence>
      </restriction>
    </complexContent>
  </complexType>
```

Field Summary

protected	format

Constructor Summary

public	Formats()

Method Summary

List	getFormat() Gets the value of the format property.

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

format

```
protected java.util.List format
```

Constructors

Formats

```
public Formats()
```

Methods

getFormat

```
public List getFormat()
```

Gets the value of the format property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the format property.

For example, to add a new item, do as follows:

```
getFormat().add(newItem);
```

Objects of the following type(s) are allowed in the list `java.lang.String`

Returns:
    the format

org.datacite.schema.kernel_4
Class Resource.FundingReferences

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.FundingReferences
```

public static class **Resource.FundingReferences**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="fundingReference" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <all>
                  <element name="funderName">
                    <simpleType>
                      <restriction base="{http://datacite.org/schema/kernel-
4}nonemptycontentStringType">
                      </restriction>
                    </simpleType>
                  </element>
                  <element name="funderIdentifier" minOccurs="0">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://www.w3.org/2001/XMLSchema>string">
                          <attribute name="funderIdentifierType" use="required"
type="{http://datacite.org/schema/kernel-4}funderIdentifierType" />
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                  <element name="awardNumber" minOccurs="0">
                    <complexType>
                      <simpleContent>
                        <extension base="<http://www.w3.org/2001/XMLSchema>string">
                          <attribute name="awardURI"
type="{http://www.w3.org/2001/XMLSchema}anyURI" />
                        </extension>
                      </simpleContent>
                    </complexType>
                  </element>
                  <element name="awardTitle" minOccurs="0">
                    <simpleType>
                      <restriction base="{http://datacite.org/schema/kernel-
4}nonemptycontentStringType">
                      </restriction>
                    </simpleType>
                  </element>
                </all>
              </restriction>
            </complexContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
```

```
</complexType>
```

Nested Class Summary

class	Resource.FundingReferences.FundingReference
	Resource.FundingReferences.FundingReference

Field Summary

protected	fundingReference

Constructor Summary

public	FundingReferences()

Method Summary

List	getFundingReference()
	Gets the value of the fundingReference property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

fundingReference

protected java.util.List **fundingReference**

Constructors

FundingReferences

public **FundingReferences**()

Methods

getFundingReference

public List **getFundingReference**()

Gets the value of the fundingReference property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the fundingReference property.

For example, to add a new item, do as follows:

```
getFundingReference().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.FundingReferences.FundingReference`

Returns:
the fundingReference

org.datacite.schema.kernel_4
Class Resource.FundingReferences.FundingReference

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.FundingReferences.FundingReference
```

public static class **Resource.FundingReferences.FundingReference**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
 <complexType>
   <complexContent>
     <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
       <all>
         <element name="funderName">
           <simpleType>
             <restriction base="{http://datacite.org/schema/kernel-
4}nonemptycontentStringType">
             </restriction>
           </simpleType>
         </element>
         <element name="funderIdentifier" minOccurs="0">
           <complexType>
             <simpleContent>
               <extension base="<http://www.w3.org/2001/XMLSchema>string">
                 <attribute name="funderIdentifierType" use="required"
type="{http://datacite.org/schema/kernel-4}funderIdentifierType" />
               </extension>
             </simpleContent>
           </complexType>
         </element>
         <element name="awardNumber" minOccurs="0">
           <complexType>
             <simpleContent>
               <extension base="<http://www.w3.org/2001/XMLSchema>string">
                 <attribute name="awardURI" type="{http://www.w3.org/2001/XMLSchema}anyURI"
/>
               </extension>
             </simpleContent>
           </complexType>
         </element>
         <element name="awardTitle" minOccurs="0">
           <simpleType>
             <restriction base="{http://datacite.org/schema/kernel-
4}nonemptycontentStringType">
             </restriction>
           </simpleType>
         </element>
       </all>
     </restriction>
   </complexContent>
 </complexType>
```

Nested Class Summary

class	[Resource.FundingReferences.FundingReference.AwardNumber](#) Resource.FundingReferences.FundingReference.AwardNumber
class	[Resource.FundingReferences.FundingReference.FunderIdentifier](#) Resource.FundingReferences.FundingReference.FunderIdentifier

Field Summary

protected	awardNumber	
protected	awardTitle	
protected	funderIdentifier	
protected	funderName	

Constructor Summary

public	FundingReference()

Method Summary

Resource.FundingReferences.FundingReference.AwardNumber	getAwardNumber() Gets the value of the awardNumber property.	
String	getAwardTitle() Gets the value of the awardTitle property.	
Resource.FundingReferences.FundingReference.FunderIdentifier	getFunderIdentifier() Gets the value of the funderIdentifier property.	
String	getFunderName() Gets the value of the funderName property.	
void	setAwardNumber(Resource.FundingReferences.FundingReference.AwardNumber value) Sets the value of the awardNumber property.	
void	setAwardTitle(String value) Sets the value of the awardTitle property.	
void	setFunderIdentifier(Resource.FundingReferences.FundingReference.FunderIdentifier value) Sets the value of the funderIdentifier property.	
void	setFunderName(String value) Sets the value of the funderName property.	

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

funderName

protected java.lang.String **funderName**

funderIdentifier

```
protected
org.datacite.schema.kernel_4.Resource.FundingReferences.FundingReference.FunderIdentif
ier funderIdentifier
```

awardNumber

```
protected
org.datacite.schema.kernel_4.Resource.FundingReferences.FundingReference.AwardNumber
awardNumber
```

awardTitle

```
protected java.lang.String awardTitle
```

Constructors

FundingReference

```
public FundingReference()
```

Methods

getFunderName

```
public String getFunderName()
```

Gets the value of the funderName property.

Returns:
possible object is java.lang.String

setFunderName

```
public void setFunderName(String value)
```

Sets the value of the funderName property.

Parameters:
value - allowed object is java.lang.String

getFunderIdentifier

```
public Resource.FundingReferences.FundingReference.FunderIdentifier
getFunderIdentifier()
```

Gets the value of the funderIdentifier property.

Returns:
possible object is `Resource.FundingReferences.FundingReference.FunderIdentifier`

setFunderIdentifier

```
public void
setFunderIdentifier(Resource.FundingReferences.FundingReference.FunderIdentifier
value)
```

Sets the value of the funderIdentifier property.

Parameters:
value - allowed object is `Resource.FundingReferences.FundingReference.FunderIdentifier`

getAwardNumber

```
public Resource.FundingReferences.FundingReference.AwardNumber getAwardNumber()
```

Gets the value of the awardNumber property.

Returns:
possible object is `Resource.FundingReferences.FundingReference.AwardNumber`

setAwardNumber

```
public void setAwardNumber(Resource.FundingReferences.FundingReference.AwardNumber
value)
```

Sets the value of the awardNumber property.

Parameters:
value - allowed object is `Resource.FundingReferences.FundingReference.AwardNumber`

getAwardTitle

```
public String getAwardTitle()
```

Gets the value of the awardTitle property.

Returns:
possible object is `java.lang.String`

setAwardTitle

```
public void setAwardTitle(String value)
```

Sets the value of the awardTitle property.

Parameters:
value - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.FundingReferences.FundingReference.AwardNumber

```
java.lang.Object
   │
   +-
org.datacite.schema.kernel_4.Resource.FundingReferences.FundingReference.AwardNumber
```

public static class **Resource.FundingReferences.FundingReference.AwardNumber**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="awardURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	[awardURI](#)
protected	[value](#)

Constructor Summary

public	[AwardNumber](#)()

Method Summary

String	[getAwardURI](#)()	Gets the value of the awardURI property.
String	[getValue](#)()	Gets the value of the value property.
void	[setAwardURI](#)(String value)	Sets the value of the awardURI property.
void	[setValue](#)(String value)	Sets the value of the value property.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

```
protected java.lang.String value
```

awardURI

```
protected java.lang.String awardURI
```

Constructors

AwardNumber

```
public AwardNumber()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:
`value` - allowed object is `java.lang.String`

getAwardURI

```
public String getAwardURI()
```

Gets the value of the awardURI property.

Returns:
possible object is `java.lang.String`

setAwardURI

```
public void setAwardURI(String value)
```

Sets the value of the awardURI property.

Parameters:

value - allowed object is `java.lang.String`

setAwardURI

```
public void setAwardURI(String value)
```

Sets the value of the awardURI property.

org.datacite.schema.kernel_4
Class Resource.FundingReferences.FundingReference.FunderIdentifier

```
java.lang.Object
   │
   +-
org.datacite.schema.kernel_4.Resource.FundingReferences.FundingReference.FunderIdentifi
er
```

public static class **Resource.FundingReferences.FundingReference.FunderIdentifier**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <simpleContent>
      <extension base="<http://www.w3.org/2001/XMLSchema>string">
        <attribute name="funderIdentifierType" use="required"
 type="{http://datacite.org/schema/kernel-4}funderIdentifierType" />
      </extension>
    </simpleContent>
  </complexType>
```

Field Summary

protected	[funderIdentifierType](#)
protected	[value](#)

Constructor Summary

public	[FunderIdentifier](#)()

Method Summary

[FunderIdentifierType](#)	[getFunderIdentifierType](#)() Gets the value of the funderIdentifierType property.
String	[getValue](#)() Gets the value of the value property.
void	[setFunderIdentifierType](#)([FunderIdentifierType](#) value) Sets the value of the funderIdentifierType property.
void	[setValue](#)(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

```
protected java.lang.String value
```

funderIdentifierType

```
protected org.datacite.schema.kernel_4.FunderIdentifierType funderIdentifierType
```

Constructors

FunderIdentifier

```
public FunderIdentifier()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:
`value` - allowed object is `java.lang.String`

getFunderIdentifierType

```
public FunderIdentifierType getFunderIdentifierType()
```

Gets the value of the funderIdentifierType property.

Returns:
possible object is [FunderIdentifierType](#)

setFunderIdentifierType

public void **setFunderIdentifierType**(FunderIdentifierType value)

Sets the value of the funderIdentifierType property.

Parameters:

value - allowed object is FunderIdentifierType

setFunderIdentifierType

public void **setFunderIdentifierType**(FunderIdentifierType value)

org.datacite.schema.kernel_4
Class Resource.GeoLocations

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.GeoLocations
```

public static class **Resource.GeoLocations**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
 <complexType>
   <complexContent>
     <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
       <sequence>
         <element name="geoLocation" maxOccurs="unbounded" minOccurs="0">
           <complexType>
             <complexContent>
               <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                 <choice maxOccurs="unbounded">
                   <element name="geoLocationPlace"
type="{http://www.w3.org/2001/XMLSchema}anyType" minOccurs="0"/>
                   <element name="geoLocationPoint" type="{http://datacite.org/schema/kernel-
4}point" minOccurs="0"/>
                   <element name="geoLocationBox" type="{http://datacite.org/schema/kernel-
4}box" minOccurs="0"/>
                   <element name="geoLocationPolygon" maxOccurs="unbounded" minOccurs="0">
                     <complexType>
                       <complexContent>
                         <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                           <sequence>
                             <element name="polygonPoint"
type="{http://datacite.org/schema/kernel-4}point" maxOccurs="unbounded" minOccurs="4"/>
                             <element name="inPolygonPoint"
type="{http://datacite.org/schema/kernel-4}point" minOccurs="0"/>
                           </sequence>
                         </restriction>
                       </complexContent>
                     </complexType>
                   </element>
                 </choice>
               </restriction>
             </complexContent>
           </complexType>
         </element>
       </sequence>
     </restriction>
   </complexContent>
 </complexType>
```

Nested Class Summary

class	[Resource.GeoLocations.GeoLocation](#) Resource.GeoLocations.GeoLocation

Field Summary

protected	[geoLocation](#)

Constructor Summary

public	[GeoLocations](#)()

Method Summary

List	[getGeoLocation](#)() Gets the value of the geoLocation property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

geoLocation

`protected java.util.List` **`geoLocation`**

Constructors

GeoLocations

`public` **`GeoLocations`**`()`

Methods

getGeoLocation

`public List` **`getGeoLocation`**`()`

Gets the value of the geoLocation property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the geoLocation property.

For example, to add a new item, do as follows:

```
getGeoLocation().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.GeoLocations.GeoLocation`

Returns:
the geoLocation

org.datacite.schema.kernel_4
Class Resource.GeoLocations.GeoLocation

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.GeoLocations.GeoLocation
```

---

public static class **Resource.GeoLocations.GeoLocation**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <choice maxOccurs="unbounded">
        <element name="geoLocationPlace" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
        <element name="geoLocationPoint" type="{http://datacite.org/schema/kernel-4}point"
minOccurs="0"/>
        <element name="geoLocationBox" type="{http://datacite.org/schema/kernel-4}box"
minOccurs="0"/>
        <element name="geoLocationPolygon" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="polygonPoint" type="{http://datacite.org/schema/kernel-
4}point" maxOccurs="unbounded" minOccurs="4"/>
                  <element name="inPolygonPoint" type="{http://datacite.org/schema/kernel-
4}point" minOccurs="0"/>
                </sequence>
              </restriction>
            </complexContent>
          </complexType>
        </element>
      </choice>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	[Resource.GeoLocations.GeoLocation.GeoLocationPolygon](#)
	Resource.GeoLocations.GeoLocation.GeoLocationPolygon

Field Summary

protected	[geoLocationPlaceOrGeoLocationPointOrGeoLocationBox](#)

Constructor Summary

public	[GeoLocation](#)()

Method Summary

List	[getGeoLocationPlaceOrGeoLocationPointOrGeoLocationBox](#)() Gets the value of the geoLocationPlaceOrGeoLocationPointOrGeoLocationBox property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

geoLocationPlaceOrGeoLocationPointOrGeoLocationBox

protected java.util.List **geoLocationPlaceOrGeoLocationPointOrGeoLocationBox**

Constructors

GeoLocation

public **GeoLocation**()

Methods

getGeoLocationPlaceOrGeoLocationPointOrGeoLocationBox

public List **getGeoLocationPlaceOrGeoLocationPointOrGeoLocationBox**()

Gets the value of the geoLocationPlaceOrGeoLocationPointOrGeoLocationBox property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the geoLocationPlaceOrGeoLocationPointOrGeoLocationBox property.

For example, to add a new item, do as follows:

```
getGeoLocationPlaceOrGeoLocationPointOrGeoLocationBox().add(newItem);
```

Objects of the following type(s) are allowed in the list null null `java.lang.Object` `Point` `Box` `Resource.GeoLocations.GeoLocation.GeoLocationPolygon`

Returns:

the geoLocationPlaceOrGeoLocationPointOrGeoLocationBox

org.datacite.schema.kernel_4
Class Resource.GeoLocations.GeoLocation.GeoLocationPolygon

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.GeoLocations.GeoLocation.GeoLocationPolygon
```

public static class **Resource.GeoLocations.GeoLocation.GeoLocationPolygon**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
 <complexType>
   <complexContent>
     <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
       <sequence>
         <element name="polygonPoint" type="{http://datacite.org/schema/kernel-4}point"
 maxOccurs="unbounded" minOccurs="4"/>
         <element name="inPolygonPoint" type="{http://datacite.org/schema/kernel-4}point"
 minOccurs="0"/>
       </sequence>
     </restriction>
   </complexContent>
 </complexType>
```

Field Summary

protected	[inPolygonPoint](#)
protected	[polygonPoint](#)

Constructor Summary

public	[GeoLocationPolygon](#)()

Method Summary

[Point](#)	[getInPolygonPoint](#)() Gets the value of the inPolygonPoint property.
List	[getPolygonPoint](#)() Gets the value of the polygonPoint property.
void	[setInPolygonPoint](#)([Point](#) value) Sets the value of the inPolygonPoint property.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

polygonPoint

```
protected java.util.List polygonPoint
```

inPolygonPoint

```
protected org.datacite.schema.kernel_4.Point inPolygonPoint
```

Constructors

GeoLocationPolygon

```
public GeoLocationPolygon()
```

Methods

getPolygonPoint

```
public List getPolygonPoint()
```

Gets the value of the polygonPoint property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a set method for the polygonPoint property.

For example, to add a new item, do as follows:

```
    getPolygonPoint().add(newItem);
```

Objects of the following type(s) are allowed in the list Point

Returns:
    the polygon

getInPolygonPoint

```
public Point getInPolygonPoint()
```

Gets the value of the inPolygonPoint property.

Returns:
>   possible object is `Point`

setInPolygonPoint

`public void` **`setInPolygonPoint`**`(`Point` value)`

>   Sets the value of the inPolygonPoint property.

>   **Parameters:**
>   >   `value` - allowed object is `Point`

org.datacite.schema.kernel_4
Class Resource.Identifier

```
java.lang.Object
   |
   +-org.datacite.schema.kernel_4.Resource.Identifier
```

public static class **Resource.Identifier**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <simpleContent>
      <extension base="<http://datacite.org/schema/kernel-4>doiType">
        <attribute name="identifierType" use="required"
 type="{http://www.w3.org/2001/XMLSchema}anySimpleType" fixed="DOI" />
      </extension>
    </simpleContent>
  </complexType>
```

Field Summary

public static final	[IDENTIFIER_TYPE](#) Value: **DOI**
protected	[value](#)

Constructor Summary

public	[Identifier](#)()

Method Summary

String	[getValue](#)() Gets the value of the value property.
void	[setValue](#)(String value) Sets the value of the value property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

IDENTIFIER_TYPE

`public static final java.lang.String **IDENTIFIER_TYPE**`

> Constant value: **DOI**

value

`protected java.lang.String **value**`

Constructors

Identifier

`public **Identifier**()`

Methods

getValue

`public String **getValue**()`

> Gets the value of the value property.

> **Returns:**
> possible object is `java.lang.String`

setValue

`public void **setValue**(String value)`

> Sets the value of the value property.

> **Parameters:**
> value - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.RelatedIdentifiers

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.RelatedIdentifiers
```

---

public static class **Resource.RelatedIdentifiers**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <complexContent>
      <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
        <sequence>
          <element name="relatedIdentifier" maxOccurs="unbounded" minOccurs="0">
            <complexType>
              <simpleContent>
                <extension base="<http://www.w3.org/2001/XMLSchema>string">
                  <attribute name="resourceTypeGeneral"
type="{http://datacite.org/schema/kernel-4}resourceType" />
                  <attribute name="relatedIdentifierType" use="required"
type="{http://datacite.org/schema/kernel-4}relatedIdentifierType" />
                  <attribute name="relationType" use="required"
type="{http://datacite.org/schema/kernel-4}relationType" />
                  <attribute name="relatedMetadataScheme"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                  <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI"
/>
                  <attribute name="schemeType"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                </extension>
              </simpleContent>
            </complexType>
          </element>
        </sequence>
      </restriction>
    </complexContent>
  </complexType>
```

Nested Class Summary

class	[Resource.RelatedIdentifiers.RelatedIdentifier](#) Resource.RelatedIdentifiers.RelatedIdentifier

---

Field Summary

protected	[relatedIdentifier](#)

Constructor Summary

public	[RelatedIdentifiers](#)()

Method Summary

List	[getRelatedIdentifier](#)() Gets the value of the relatedIdentifier property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

relatedIdentifier

protected java.util.List **relatedIdentifier**

Constructors

RelatedIdentifiers

public **RelatedIdentifiers**()

Methods

getRelatedIdentifier

public List **getRelatedIdentifier**()

Gets the value of the relatedIdentifier property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the relatedIdentifier property.

For example, to add a new item, do as follows:

```
getRelatedIdentifier().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.RelatedIdentifiers.RelatedIdentifier`

Returns:

the relatedIdentifier

org.datacite.schema.kernel_4
Class Resource.RelatedIdentifiers.RelatedIdentifier

```
java.lang.Object
   └─org.datacite.schema.kernel_4.Resource.RelatedIdentifiers.RelatedIdentifier
```

public static class **Resource.RelatedIdentifiers.RelatedIdentifier**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="resourceTypeGeneral" type="{http://datacite.org/schema/kernel-
4}resourceType" />
      <attribute name="relatedIdentifierType" use="required"
type="{http://datacite.org/schema/kernel-4}relatedIdentifierType" />
      <attribute name="relationType" use="required" type="{http://datacite.org/schema/kernel
-4}relationType" />
      <attribute name="relatedMetadataScheme"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
      <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
      <attribute name="schemeType" type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	[relatedIdentifierType](#)
protected	[relatedMetadataScheme](#)
protected	[relationType](#)
protected	[resourceTypeGeneral](#)
protected	[schemeType](#)
protected	[schemeURI](#)
protected	[value](#)

Constructor Summary

public	`RelatedIdentifier()`

Method Summary

`RelatedIdentifierType`	`getRelatedIdentifierType()` Gets the value of the relatedIdentifierType property.
String	`getRelatedMetadataScheme()` Gets the value of the relatedMetadataScheme property.
`RelationType`	`getRelationType()` Gets the value of the relationType property.
`ResourceType`	`getResourceTypeGeneral()` Gets the value of the resourceTypeGeneral property.
String	`getSchemeType()` Gets the value of the schemeType property.
String	`getSchemeURI()` Gets the value of the schemeURI property.
String	`getValue()` Gets the value of the value property.
void	`setRelatedIdentifierType(RelatedIdentifierType value)` Sets the value of the relatedIdentifierType property.
void	`setRelatedMetadataScheme(String value)` Sets the value of the relatedMetadataScheme property.
void	`setRelationType(RelationType value)` Sets the value of the relationType property.
void	`setResourceTypeGeneral(ResourceType value)` Sets the value of the resourceTypeGeneral property.
void	`setSchemeType(String value)` Sets the value of the schemeType property.
void	`setSchemeURI(String value)` Sets the value of the schemeURI property.
void	`setValue(String value)` Sets the value of the value property.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

(continued from last page)

value

`protected java.lang.String` **`value`**

resourceTypeGeneral

`protected org.datacite.schema.kernel_4.ResourceType` **`resourceTypeGeneral`**

relatedIdentifierType

`protected org.datacite.schema.kernel_4.RelatedIdentifierType` **`relatedIdentifierType`**

relationType

`protected org.datacite.schema.kernel_4.RelationType` **`relationType`**

relatedMetadataScheme

`protected java.lang.String` **`relatedMetadataScheme`**

schemeURI

`protected java.lang.String` **`schemeURI`**

schemeType

`protected java.lang.String` **`schemeType`**

Constructors

RelatedIdentifier

`public` **`RelatedIdentifier`**`()`

Methods

getValue

`public String` **`getValue`**`()`

Gets the value of the value property.

(continued from last page)

Returns:
     possible object is `java.lang.String`

setValue

`public void `**`setValue`**`(String value)`

  Sets the value of the value property.

    Parameters:
     value - allowed object is `java.lang.String`

getResourceTypeGeneral

`public `[`ResourceType`](#)` `**`getResourceTypeGeneral`**`()`

  Gets the value of the resourceTypeGeneral property.

    Returns:
     possible object is [`ResourceType`](#)

setResourceTypeGeneral

`public void `**`setResourceTypeGeneral`**`(`[`ResourceType`](#)` value)`

  Sets the value of the resourceTypeGeneral property.

    Parameters:
     value - allowed object is [`ResourceType`](#)

getRelatedIdentifierType

`public `[`RelatedIdentifierType`](#)` `**`getRelatedIdentifierType`**`()`

  Gets the value of the relatedIdentifierType property.

    Returns:
     possible object is [`RelatedIdentifierType`](#)

setRelatedIdentifierType

`public void `**`setRelatedIdentifierType`**`(`[`RelatedIdentifierType`](#)` value)`

  Sets the value of the relatedIdentifierType property.

    Parameters:
     value - allowed object is [`RelatedIdentifierType`](#)

getRelationType

`public `[`RelationType`](#)` `**`getRelationType`**`()`

  Gets the value of the relationType property.

    Returns:
     possible object is [`RelationType`](#)

setRelationType

public void **setRelationType**(RelationType value)

Sets the value of the relationType property.

Parameters:
value - allowed object is RelationType

getRelatedMetadataScheme

public String **getRelatedMetadataScheme**()

Gets the value of the relatedMetadataScheme property.

Returns:
possible object is `java.lang.String`

setRelatedMetadataScheme

public void **setRelatedMetadataScheme**(String value)

Sets the value of the relatedMetadataScheme property.

Parameters:
value - allowed object is `java.lang.String`

getSchemeURI

public String **getSchemeURI**()

Gets the value of the schemeURI property.

Returns:
possible object is `java.lang.String`

setSchemeURI

public void **setSchemeURI**(String value)

Sets the value of the schemeURI property.

Parameters:
value - allowed object is `java.lang.String`

getSchemeType

public String **getSchemeType**()

Gets the value of the schemeType property.

Returns:
possible object is `java.lang.String`

setSchemeType

public void **setSchemeType**(String value)

Sets the value of the schemeType property.

Parameters:

   value - allowed object is `java.lang.String`

Sets the value of the schemeType property.

Parameters:

   value - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.ResourceType

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.ResourceType
```

public static class **Resource.ResourceType**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="resourceTypeGeneral" use="required"
type="{http://datacite.org/schema/kernel-4}resourceType" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	[resourceTypeGeneral](#)
protected	[value](#)

Constructor Summary

public	[ResourceType](#)()

Method Summary

[ResourceType](#)	[getResourceTypeGeneral](#)() Gets the value of the resourceTypeGeneral property.
String	[getValue](#)() Gets the value of the value property.
void	[setResourceTypeGeneral](#)([ResourceType](#) value) Sets the value of the resourceTypeGeneral property.
void	[setValue](#)(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

```
protected java.lang.String value
```

resourceTypeGeneral

```
protected org.datacite.schema.kernel_4.ResourceType resourceTypeGeneral
```

Constructors

ResourceType

```
public ResourceType()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:
`value` - allowed object is `java.lang.String`

getResourceTypeGeneral

```
public ResourceType getResourceTypeGeneral()
```

Gets the value of the resourceTypeGeneral property.

Returns:
possible object is ResourceType

setResourceTypeGeneral

public void **setResourceTypeGeneral**(ResourceType value)

> Sets the value of the resourceTypeGeneral property.

> **Parameters:**
>> value - allowed object is ResourceType

setResourceTypeGeneral

public void **setResourceTypeGeneral**(ResourceType value)

org.datacite.schema.kernel_4
Class Resource.RightsList

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.RightsList
```

public static class **Resource.RightsList**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="rights" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <simpleContent>
              <extension base="<http://www.w3.org/2001/XMLSchema>string">
                <attribute name="rightsURI" type="{http://www.w3.org/2001/XMLSchema}anyURI"
 />

                <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
              </extension>
            </simpleContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	[Resource.RightsList.Rights](#) Resource.RightsList.Rights

Field Summary

protected	[rights](#)

Constructor Summary

public	[RightsList](#)()

Method Summary

List	[getRights](<>)() Gets the value of the rights property.	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

rights

protected java.util.List **rights**

Constructors

RightsList

public **RightsList**()

Methods

getRights

public List **getRights**()

Gets the value of the rights property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a set method for the rights property.

For example, to add a new item, do as follows:

```
getRights().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.RightsList.Rights`

Returns:
    the rights

org.datacite.schema.kernel_4
Class Resource.RightsList.Rights

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.RightsList.Rights
```

public static class **Resource.RightsList.Rights**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="rightsURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
      <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	[lang](#)
protected	[rightsURI](#)
protected	[value](#)

Constructor Summary

public	[Rights](#)()

Method Summary

String	[getLang](#)() Gets the value of the lang property.
String	[getRightsURI](#)() Gets the value of the rightsURI property.
String	[getValue](#)() Gets the value of the value property.
void	[setLang](#)(String value) Sets the value of the lang property.

void	[setRightsURI](String value) Sets the value of the rightsURI property.	
void	[setValue](String value) Sets the value of the value property.	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

value

protected java.lang.String **value**

rightsURI

protected java.lang.String **rightsURI**

lang

protected java.lang.String **lang**

Constructors

Rights

public **Rights**()

Methods

getValue

public String **getValue**()

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

public void **setValue**(String value)

Sets the value of the value property.

Parameters:
    value - allowed object is `java.lang.String`

getRightsURI

`public String` **`getRightsURI`**`()`

Gets the value of the rightsURI property.

Returns:
    possible object is `java.lang.String`

setRightsURI

`public void` **`setRightsURI`**`(String value)`

Sets the value of the rightsURI property.

Parameters:
    value - allowed object is `java.lang.String`

getLang

`public String` **`getLang`**`()`

Gets the value of the lang property.

Returns:
    possible object is `java.lang.String`

setLang

`public void` **`setLang`**`(String value)`

Sets the value of the lang property.

Parameters:
    value - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.Sizes

```
java.lang.Object
    │
    +-org.datacite.schema.kernel_4.Resource.Sizes
```

public static class **Resource.Sizes**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="size" type="{http://www.w3.org/2001/XMLSchema}string"
maxOccurs="unbounded" minOccurs="0"/>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Field Summary

protected	[size](#)

Constructor Summary

public	[Sizes](#)()

Method Summary

List	[getSize](#)() Gets the value of the size property.

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

size

```
protected java.util.List size
```

Constructors

Sizes

```
public Sizes()
```

Methods

getSize

```
public List getSize()
```

Gets the value of the size property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the size property.

For example, to add a new item, do as follows:

```
    getSize().add(newItem);
```

Objects of the following type(s) are allowed in the list `java.lang.String`

Returns:
    the size

org.datacite.schema.kernel_4
Class Resource.Subjects

```
java.lang.Object
   │
   └─org.datacite.schema.kernel_4.Resource.Subjects
```

public static class **Resource.Subjects**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
  <complexType>
    <complexContent>
      <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
        <sequence>
          <element name="subject" maxOccurs="unbounded" minOccurs="0">
            <complexType>
              <simpleContent>
                <extension base="<http://www.w3.org/2001/XMLSchema>string">
                  <attribute name="subjectScheme"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
                  <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI"
/>
                  <attribute name="valueURI" type="{http://www.w3.org/2001/XMLSchema}anyURI"
/>
                  <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
                </extension>
              </simpleContent>
            </complexType>
          </element>
        </sequence>
      </restriction>
    </complexContent>
  </complexType>
```

Nested Class Summary

class	[Resource.Subjects.Subject](#) Resource.Subjects.Subject

Field Summary

protected	[subject](#)

Constructor Summary

public	[Subjects](<link>)()

Method Summary

List	[getSubject](<link>)() Gets the value of the subject property.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

subject

protected java.util.List **subject**

Constructors

Subjects

public **Subjects**()

Methods

getSubject

public List **getSubject**()

Gets the value of the subject property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the subject property.

For example, to add a new item, do as follows:

```
getSubject().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.Subjects.Subject`

Returns:
the subject

org.datacite.schema.kernel_4
Class Resource.Subjects.Subject

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.Subjects.Subject
```

public static class **Resource.Subjects.Subject**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="subjectScheme" type="{http://www.w3.org/2001/XMLSchema}anySimpleType"
/>
      <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
      <attribute name="valueURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
      <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	lang
protected	schemeURI
protected	subjectScheme
protected	value
protected	valueURI

Constructor Summary

public	Subject()

Method Summary

String	getLang() Gets the value of the lang property.

String		[getSchemeURI](#)() Gets the value of the schemeURI property.
String		[getSubjectScheme](#)() Gets the value of the subjectScheme property.
String		[getValue](#)() Gets the value of the value property.
String		[getValueURI](#)() Gets the value of the valueURI property.
void		[setLang](#)(String value) Sets the value of the lang property.
void		[setSchemeURI](#)(String value) Sets the value of the schemeURI property.
void		[setSubjectScheme](#)(String value) Sets the value of the subjectScheme property.
void		[setValue](#)(String value) Sets the value of the value property.
void		[setValueURI](#)(String value) Sets the value of the valueURI property.

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

value

`protected java.lang.String` **`value`**

subjectScheme

`protected java.lang.String` **`subjectScheme`**

schemeURI

`protected java.lang.String` **`schemeURI`**

valueURI

`protected java.lang.String` **`valueURI`**

lang

```
protected java.lang.String lang
```

Constructors

Subject

```
public Subject()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:
value - allowed object is `java.lang.String`

getSubjectScheme

```
public String getSubjectScheme()
```

Gets the value of the subjectScheme property.

Returns:
possible object is `java.lang.String`

setSubjectScheme

```
public void setSubjectScheme(String value)
```

Sets the value of the subjectScheme property.

Parameters:
value - allowed object is `java.lang.String`

getSchemeURI

```
public String getSchemeURI()
```

Gets the value of the schemeURI property.

Returns:
possible object is `java.lang.String`

setSchemeURI

public void **setSchemeURI**(String value)

Sets the value of the schemeURI property.

Parameters:
`value` - allowed object is `java.lang.String`

getValueURI

public String **getValueURI**()

Gets the value of the valueURI property.

Returns:
possible object is `java.lang.String`

setValueURI

public void **setValueURI**(String value)

Sets the value of the valueURI property.

Parameters:
`value` - allowed object is `java.lang.String`

getLang

public String **getLang**()

Gets the value of the lang property.

Returns:
possible object is `java.lang.String`

setLang

public void **setLang**(String value)

Sets the value of the lang property.

Parameters:
`value` - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class Resource.Titles

```
java.lang.Object
   │
   +-org.datacite.schema.kernel_4.Resource.Titles
```

public static class **Resource.Titles**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="title" maxOccurs="unbounded">
          <complexType>
            <simpleContent>
              <extension base="<http://datacite.org/schema/kernel-
4>nonemptycontentStringType">
                <attribute name="titleType" type="{http://datacite.org/schema/kernel-
4}titleType" />
                <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
              </extension>
            </simpleContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	[Resource.Titles.Title](#) Resource.Titles.Title

Field Summary

protected	[title](#)

Constructor Summary

public	[Titles](#)()

Method Summary

List	[getTitle](#)() Gets the value of the title property.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

title

`protected java.util.List` **`title`**

Constructors

Titles

`public` **`Titles`**`()`

Methods

getTitle

`public List` **`getTitle`**`()`

Gets the value of the title property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the title property.

For example, to add a new item, do as follows:

```
    getTitle().add(newItem);
```

Objects of the following type(s) are allowed in the list `Resource.Titles.Title`

Returns:
    the title

org.datacite.schema.kernel_4
Class Resource.Titles.Title

```
java.lang.Object
    |
    +-org.datacite.schema.kernel_4.Resource.Titles.Title
```

public static class **Resource.Titles.Title**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://datacite.org/schema/kernel-4>nonemptycontentStringType">
      <attribute name="titleType" type="{http://datacite.org/schema/kernel-4}titleType" />
      <attribute ref="{http://www.w3.org/XML/1998/namespace}lang"/>
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	lang
protected	titleType
protected	value

Constructor Summary

public	Title()

Method Summary

String	getLang() Gets the value of the lang property.
TitleType	getTitleType() Gets the value of the titleType property.
String	getValue() Gets the value of the value property.
void	setLang(String value) Sets the value of the lang property.

	void	[setTitleType]([TitleType] value) Sets the value of the titleType property.
	void	[setValue](String value) Sets the value of the value property.

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

value

`protected java.lang.String` **`value`**

titleType

`protected org.datacite.schema.kernel_4.TitleType` **`titleType`**

lang

`protected java.lang.String` **`lang`**

Constructors

Title

`public` **`Title`**`()`

Methods

getValue

`public String` **`getValue`**`()`

Gets the value of the value property.

Returns:
possible object is `java.lang.String`

setValue

`public void` **`setValue`**`(String value)`

Sets the value of the value property.

Parameters:
    `value` - allowed object is `java.lang.String`

getTitleType

`public` `TitleType` **`getTitleType`**`()`

Gets the value of the titleType property.

Returns:
    possible object is `TitleType`

setTitleType

`public void` **`setTitleType`**`(TitleType value)`

Sets the value of the titleType property.

Parameters:
    `value` - allowed object is `TitleType`

getLang

`public String` **`getLang`**`()`

Gets the value of the lang property.

Returns:
    possible object is `java.lang.String`

setLang

`public void` **`setLang`**`(String value)`

Sets the value of the lang property.

Parameters:
    `value` - allowed object is `java.lang.String`

org.datacite.schema.kernel_4
Class ResourceType

```
java.lang.Object
    │
    +-java.lang.Enum
        │
        +-org.datacite.schema.kernel_4.ResourceType
```

All Implemented Interfaces:
> Serializable, Comparable

---
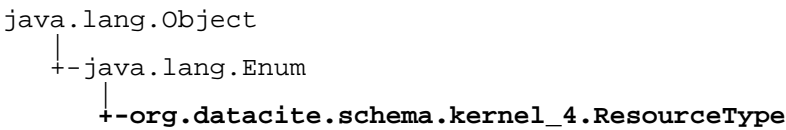
public final class **ResourceType**
extends Enum

Java class for resourceType.

The following schema fragment specifies the expected content contained within this class.

```
<simpleType name="resourceType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="Audiovisual"/>
    <enumeration value="Collection"/>
    <enumeration value="DataPaper"/>
    <enumeration value="Dataset"/>
    <enumeration value="Event"/>
    <enumeration value="Image"/>
    <enumeration value="InteractiveResource"/>
    <enumeration value="Model"/>
    <enumeration value="PhysicalObject"/>
    <enumeration value="Service"/>
    <enumeration value="Software"/>
    <enumeration value="Sound"/>
    <enumeration value="Text"/>
    <enumeration value="Workflow"/>
    <enumeration value="Other"/>
  </restriction>
</simpleType>
```

Field Summary

public static final	AUDIOVISUAL A series of visual representations imparting an impression of motion when shown in succession.
public static final	COLLECTION An aggregation of resources of various types, or a list of resources that form part of a publication.

public static final	DATA_PAPER	
public static final	DATASET Data encoded in a defined structure.	
public static final	EVENT A nonâpersistent, timeâbased occurrence.	
public static final	IMAGE A visual representation other than text.	
public static final	INTERACTIVE_RESOURCE A resource requiring interaction from the user to be understood, executed, or experienced.	
public static final	MODEL An abstract, conceptual, graphical, mathematical or visualization model that represents empirical objects, phenomena, or physical processes.	
public static final	OTHER If selected, supply a value for ResourceType.	
public static final	PHYSICAL_OBJECT An inanimate, threeâdimensional object or substance.	
public static final	SERVICE A system that provides one or more functions of value to the endâuser.	
public static final	SOFTWARE A computer program in source code (text) or compiled form.	
public static final	SOUND A resource primarily intended to be heard.	
public static final	TEXT A resource consisting primarily of words for reading.	
public static final	WORKFLOW A structured series of steps which can be executed to produce a final outcome, allowing users a means to specify and enact their work in a more reproducible manner.	

Method Summary

static ResourceType	fromValue(String v) Gets the resource type from a value	
String	value() Gets the value.	
static ResourceType	valueOf(String name)	
static ResourceType[]	values()	

Methods inherited from class `java.lang.Enum`

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.lang.Comparable`

```
compareTo
```

Fields

AUDIOVISUAL

`public static final org.datacite.schema.kernel_4.ResourceType` **`AUDIOVISUAL`**

A series of visual representations imparting an impression of motion when shown in succession. May or may not include sound. May be used for films, video, etc,

Ex: http://data.datacite.org/10.7916/D8610XCB

COLLECTION

`public static final org.datacite.schema.kernel_4.ResourceType` **`COLLECTION`**

An aggregation of resources of various types, or a list of resources that form part of a publication. If a collection exists of a single type, use the single type to describe it.

A collection of samples, or various files making up a report. Ex: http://data.datacite.org/10.5284/1001038

DATA_PAPER

`public static final org.datacite.schema.kernel_4.ResourceType` **`DATA_PAPER`**

DATASET

`public static final org.datacite.schema.kernel_4.ResourceType` **`DATASET`**

Data encoded in a defined structure.

Data file or files, Ex:http://data.datacite.org/10.4231/D39Z90B9T

EVENT

`public static final org.datacite.schema.kernel_4.ResourceType` **`EVENT`**

A nonâpersistent, timeâbased occurrence.

Descriptive information and/or content that is the basis for discovery of the purpose, location, duration, and responsible agents associated with an event such as a webcast or convention. Ex: http://data.datacite.org/10.7269/P3RN35SZ

IMAGE

`public static final org.datacite.schema.kernel_4.ResourceType` **`IMAGE`**

A visual representation other than text.

Digitised or born digital images, drawings or photographs. Ex:http://data.datacite.org/10.6083/M4QN65C5

INTERACTIVE_RESOURCE

```
public static final org.datacite.schema.kernel_4.ResourceType INTERACTIVE_RESOURCE
```

A resource requiring interaction from the user to be understood, executed, or experienced.

Training modules, files that require use of a viewer (e.g., Flash), or query/response portals. Ex: http://data.datacite.org/10.7269/P3TB14TR

MODEL

```
public static final org.datacite.schema.kernel_4.ResourceType MODEL
```

An abstract, conceptual, graphical, mathematical or visualization model that represents empirical objects, phenomena, or physical processes.

Modelled descriptions of, for example, different aspects of languages or a molecular biology reaction chain. Ex: http://data.datacite.org/10.5285/4D866CD2âC907â4CE2âB070â084CA9779DC2

PHYSICAL_OBJECT

```
public static final org.datacite.schema.kernel_4.ResourceType PHYSICAL_OBJECT
```

An inanimate, threeâdimensional object or substance.

Artifacts, specimens.Ex: http://data.datacite.org/10.7299/X78052RB

SERVICE

```
public static final org.datacite.schema.kernel_4.ResourceType SERVICE
```

A system that provides one or more functions of value to the endâuser.

Data management service, authentication service, or photocopying service.

SOFTWARE

```
public static final org.datacite.schema.kernel_4.ResourceType SOFTWARE
```

A computer program in source code (text) or compiled form.

Software supporting research. Ex: http://data.datacite.org/10.7938/M1057CV9

SOUND

```
public static final org.datacite.schema.kernel_4.ResourceType SOUND
```

A resource primarily intended to be heard.

Audio recording. Ex: http://data.datacite.org/10.7282/T3J67F05

TEXT

```
public static final org.datacite.schema.kernel_4.ResourceType TEXT
```

A resource consisting primarily of words for reading.

Grey literature, lab notes, accompanying materials. Ex: http://data.datacite.org/10.5682/9786065914018

WORKFLOW

```
public static final org.datacite.schema.kernel_4.ResourceType WORKFLOW
```

A structured series of steps which can be executed to produce a final outcome, allowing users a means to specify and enact their work in a more reproducible manner.

Computational workflows involving sequential operations made on data by wrapped software and may be specified in a format belonging to a workflow management system, such as Taverna (http://www.taverna.org.uk/).

OTHER

```
public static final org.datacite.schema.kernel_4.ResourceType OTHER
```

If selected, supply a value for ResourceType.

Methods

values

```
public static ResourceType[] values()
```

valueOf

```
public static ResourceType valueOf(String name)
```

value

```
public String value()
```

Gets the value.

Returns:
the value

fromValue

```
public static ResourceType fromValue(String v)
```

Gets the resource type from a value

Parameters:
v - value

Returns:
the resource type

org.datacite.schema.kernel_4
Class TitleType

```
java.lang.Object
    |
    +-java.lang.Enum
          |
          +-org.datacite.schema.kernel_4.TitleType
```

All Implemented Interfaces:
Serializable, Comparable

---

public final class **TitleType**
extends Enum

Java class for titleType.

The following schema fragment specifies the expected content contained within this class.

```
<simpleType name="titleType">
  <restriction base="{http://www.w3.org/2001/XMLSchema}string">
    <enumeration value="AlternativeTitle"/>
    <enumeration value="Subtitle"/>
    <enumeration value="TranslatedTitle"/>
    <enumeration value="Other"/>
  </restriction>
</simpleType>
```

Field Summary

public static final	[ALTERNATIVE_TITLE](#)
public static final	[OTHER](#)
public static final	[SUBTITLE](#)
public static final	[TRANSLATED_TITLE](#)

Method Summary

static [TitleType](#)	[fromValue](#)(String v) Returns the title type
String	[value](#)() Returns the value
static [TitleType](#)	[valueOf](#)(String name)

static [TitleType[]](#)	[values](#)()

Methods inherited from class `java.lang.Enum`

clone, compareTo, equals, finalize, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Fields

ALTERNATIVE_TITLE

public static final org.datacite.schema.kernel_4.TitleType **ALTERNATIVE_TITLE**

SUBTITLE

public static final org.datacite.schema.kernel_4.TitleType **SUBTITLE**

TRANSLATED_TITLE

public static final org.datacite.schema.kernel_4.TitleType **TRANSLATED_TITLE**

OTHER

public static final org.datacite.schema.kernel_4.TitleType **OTHER**

Methods

values

public static [TitleType[]](#) **values**()

valueOf

public static [TitleType](#) **valueOf**(String name)

value

```
public String value()
```

> Returns the value

> **Returns:**
> the value

fromValue

```
public static TitleType fromValue(String v)
```

> Returns the title type

> **Parameters:**
> v - the value

> **Returns:**
> the title type

Package
org.restlet.ext.httpclient4

Provides a Bridge to JSPNego library, which supports different kind of proxies.

org.restlet.ext.httpclient4
Class HttpDOIClientHelper

```
java.lang.Object
    |
    +-org.restlet.engine.Helper
        |
        +-org.restlet.engine.RestletHelper
            |
            +-org.restlet.engine.connector.ConnectorHelper
                |
                +-org.restlet.engine.connector.ClientHelper
                    |
                    +-org.restlet.engine.adapter.HttpClientHelper
                        |
                        +-org.restlet.engine.connector.HttpClientHelper
                            |
                            +-org.restlet.ext.httpclient4.HttpDOIClientHelper
```
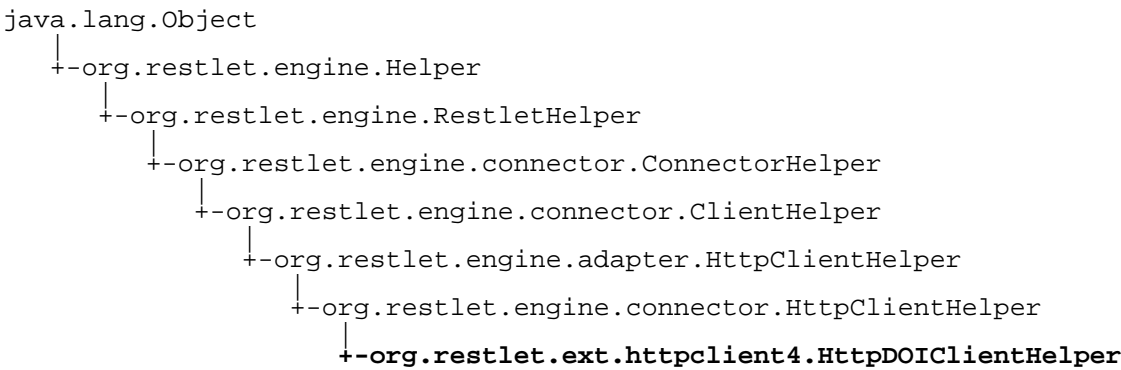
public class **HttpDOIClientHelper**
extends org.restlet.engine.connector.HttpClientHelper

HttpClient configuration.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	[HttpDOIClientHelper](org.restlet.Client client) Constructor.

Method Summary

org.restlet.engine.ad apter.ClientCall	[create](org.restlet.Request request)
fr.cnes.httpclient.Ht tpClient	[getHttpClient](()) Returns the wrapped Apache HTTP Client.
long	[getIdleTimeout](()) Returns the time in ms beyond which idle connections are eligible for reaping.
String	[getKeyStorePath](()) Returns the key store path.
String	[getKeyStorePwd](()) Returns the key store password.
String	[getKeyStoreType](()) Returns the key store type.
int	[getMaxConnectionsPerHost](()) Returns the maximum number of connections that will be created for any particular host.
int	[getMaxRedirects](()) Get Max retry.
int	[getMaxTotalConnections](()) Returns the maximum number of active connections.

int	[getRetry]() Get Max retry.	
long	[getRetryDelay]() Delay between two retries.	
String	[getTrustStorePath]() Returns the trust store path.	
String	[getTrustStorePwd]() Returns the trust store password.	
String	[getTrustStoreType]() Returns the trust store type.	
boolean	[isDisabledSSL]() Returns true if the SSL is disabled otherwise false.	
void	[start]()	
void	[stop]()	

Methods inherited from class `org.restlet.engine.connector.HttpClientHelper`

```
create, getChunkLength, getHostnameVerifier, getReadTimeout, isAllowUserInteraction,
isFollowRedirects, isUseCaches, start, stop
```

Methods inherited from class `org.restlet.engine.adapter.HttpClientHelper`

```
create, getAdapter, getSocketConnectTimeoutMs, handle, setAdapter
```

Methods inherited from class `org.restlet.engine.connector.ConnectorHelper`

```
getConnectorService, getContext, getProtocols, start, stop, update
```

Methods inherited from class `org.restlet.engine.RestletHelper`

```
getAttributes, getContext, getHelped, getHelpedParameters, getLogger,
getMetadataService, handle, setHelped, start, stop, update
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

HttpDOIClientHelper

public **HttpDOIClientHelper**(org.restlet.Client client)

Constructor.

Parameters:
    client - client

Methods

getKeyStoreType

`public String` **`getKeyStoreType`**`()`

Returns the key store type.

Returns:
the key store type or null

getKeyStorePath

`public String` **`getKeyStorePath`**`()`

Returns the key store path.

Returns:
the key store path or null

getKeyStorePwd

`public String` **`getKeyStorePwd`**`()`

Returns the key store password.

Returns:
the key store password or null

getTrustStoreType

`public String` **`getTrustStoreType`**`()`

Returns the trust store type.

Returns:
the key store type or null

getTrustStorePath

`public String` **`getTrustStorePath`**`()`

Returns the trust store path.

Returns:
the key store path or null

getTrustStorePwd

`public String` **`getTrustStorePwd`**`()`

Returns the trust store password.

Returns:
the key store password or null

(continued from last page)

getMaxConnectionsPerHost

`public int` **`getMaxConnectionsPerHost`**`()`

Returns the maximum number of connections that will be created for any particular host.

Returns:
The maximum number of connections that will be created for any particular host.

getMaxTotalConnections

`public int` **`getMaxTotalConnections`**`()`

Returns the maximum number of active connections.

Returns:
The maximum number of active connections.

getIdleTimeout

`public long` **`getIdleTimeout`**`()`

Returns the time in ms beyond which idle connections are eligible for reaping. The default value is 60000 ms.

Returns:
The time in millis beyond which idle connections are eligible for reaping.

getRetry

`public int` **`getRetry`**`()`

Get Max retry.

Returns:
max retry

getRetryDelay

`public long` **`getRetryDelay`**`()`

Delay between two retries.

Returns:
max retry the delay between two retries.

getMaxRedirects

`public int` **`getMaxRedirects`**`()`

Get Max retry.

Returns:
max retry

isDisabledSSL

`public boolean` **`isDisabledSSL`**`()`

Returns true if the SSL is disabled otherwise false.

Returns:
    true if the SSL is disabled otherwise false

create

```
public org.restlet.engine.adapter.ClientCall create(org.restlet.Request request)
```

getHttpClient

```
public fr.cnes.httpclient.HttpClient getHttpClient()
```

Returns the wrapped Apache HTTP Client.

Returns:
    The wrapped Apache HTTP Client.

start

```
public void start()
  throws Exception
```

stop

```
public void stop()
  throws Exception
```

org.restlet.ext.httpclient4
Class HttpMethodCall

```
java.lang.Object
    │
    +-org.restlet.engine.adapter.Call
          │
          +-org.restlet.engine.adapter.ClientCall
                │
                +-org.restlet.ext.httpclient4.HttpMethodCall
```

public class **HttpMethodCall**
extends org.restlet.engine.adapter.ClientCall

Facade between HTTP call and the HTTP plugin.
Author:
>   Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	**HttpMethodCall**(HttpDOIClientHelper helper, String method, String requestUri, boolean hasEntity) Constructor.

Method Summary

org.apache.http.client.methods.HttpUriRequest	**getHttpRequest**() Returns the HTTP request.
org.apache.http.HttpResponse	**getHttpResponse**() Returns the HTTP response.
String	**getReasonPhrase**()
java.nio.channels.WritableByteChannel	**getRequestEntityChannel**() Not used.
OutputStream	**getRequestEntityStream**() Not used.
OutputStream	**getRequestHeadStream**() Not used.
java.nio.channels.ReadableByteChannel	**getResponseEntityChannel**(long size) Not used.
InputStream	**getResponseEntityStream**(long size)
org.restlet.util.Series	**getResponseHeaders**()
String	**getServerAddress**()
int	**getStatusCode**()

org.restlet.data.Stat us	[sendRequest](org.restlet.Request request)
void	[sendRequest](org.restlet.Request request, org.restlet.Response response, org.restlet.Uniform callback)

Methods inherited from class `org.restlet.engine.adapter.ClientCall`

getContentLength, getHelper, getLocalAddress, getRequestEntityChannel,
getRequestEntityStream, getRequestHeadStream, getResponseEntity,
getResponseEntityChannel, getResponseEntityStream, isClientKeepAlive,
isServerKeepAlive, sendRequest, sendRequest, shouldRequestBeChunked

Methods inherited from class `org.restlet.engine.adapter.Call`

getClientAddress, getClientPort, getHostDomain, getHostPort, getLogger, getMethod,
getProtocol, getReasonPhrase, getRepresentation, getRepresentation,
getRequestHeaders, getRequestUri, getResponseHeaders, getServerAddress,
getServerPort, getStatusCode, getUserPrincipal, getVersion, isBroken,
isClientKeepAlive, isConfidential, isConnectionBroken, isKeepAlive, isRequestChunked,
isResponseChunked, isServerKeepAlive, setClientAddress, setClientPort,
setConfidential, setHostDomain, setHostPort, setMethod, setProtocol, setReasonPhrase,
setRequestUri, setServerAddress, setServerPort, setStatusCode, setUserPrincipal,
setVersion

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Constructors

HttpMethodCall

```
public HttpMethodCall(HttpDOIClientHelper helper,
                      String method,
                      String requestUri,
                      boolean hasEntity)
```

Constructor.

Parameters:
    helper - The parent HTTP client helper.
    method - The method name.
    requestUri - The request URI.
    hasEntity - Indicates if the call will have an entity to send to the server.

Throws:
    IOException - when an error happens

Methods

getHttpRequest

```
public org.apache.http.client.methods.HttpUriRequest getHttpRequest()
```

Returns the HTTP request.

Returns:
     The HTTP request.

getHttpResponse

`public org.apache.http.HttpResponse` **`getHttpResponse`**`()`

Returns the HTTP response.

Returns:
     The HTTP response.

getReasonPhrase

`public String` **`getReasonPhrase`**`()`

getRequestEntityChannel

`public java.nio.channels.WritableByteChannel` **`getRequestEntityChannel`**`()`

Not used.

Returns:
     null

getRequestEntityStream

`public OutputStream` **`getRequestEntityStream`**`()`

Not used.

Returns:
     null

getRequestHeadStream

`public OutputStream` **`getRequestHeadStream`**`()`

Not used.

Returns:
     null

getResponseEntityChannel

`public java.nio.channels.ReadableByteChannel` **`getResponseEntityChannel`**`(long size)`

Not used.

Returns:

getResponseEntityStream

```
public InputStream getResponseEntityStream(long size)
```

getResponseHeaders

```
public org.restlet.util.Series getResponseHeaders()
```

getServerAddress

```
public String getServerAddress()
```

getStatusCode

```
public int getStatusCode()
```

sendRequest

```
public org.restlet.data.Status sendRequest(org.restlet.Request request)
```

sendRequest

```
public void sendRequest(org.restlet.Request request,
        org.restlet.Response response,
        org.restlet.Uniform callback)
  throws Exception
```

Package
org.restlet.ext.wadl

Provides classes to patch WADL feature from Restlet

org.restlet.ext.wadl
Class WadlCnesRepresentation

```
java.lang.Object
    |
    +-org.restlet.representation.Variant
        |
        +-org.restlet.representation.RepresentationInfo
            |
            +-org.restlet.representation.Representation
                |
                +-org.restlet.representation.CharacterRepresentation
                    |
                    +-org.restlet.representation.WriterRepresentation
                        |
                        +-org.restlet.ext.xml.XmlRepresentation
                            |
                            +-org.restlet.ext.xml.SaxRepresentation
                                |
                                +-org.restlet.ext.wadl.WadlRepresentation
                                    |
                                    +-org.restlet.ext.wadl.WadlCnesRepresentation
```

All Implemented Interfaces:
> javax.xml.namespace.NamespaceContext

---

public class **WadlCnesRepresentation**
extends WadlRepresentation

Generates a WADL based on a patch of the Restlet XSLT.
Author:
> Jean-Christoph Malapert

Fields inherited from class `org.restlet.ext.wadl.WadlRepresentation`
APP_NAMESPACE

Fields inherited from class `org.restlet.ext.xml.SaxRepresentation`
XML_SECURE_PROCESSING

Fields inherited from class `org.restlet.ext.xml.XmlRepresentation`
XML_EXPANDING_ENTITY_REFS, XML_VALIDATING_DTD

Fields inherited from class `org.restlet.representation.Representation`
UNKNOWN_SIZE

Constructor Summary

public	[WadlCnesRepresentation](ApplicationInfo application) Constructs a new Wadl representation based on a new XSLT.

Method Summary

org.restlet.represent ation.Representation	[getHtmlRepresentation]() Returns the HTML representation of the WADL

Methods inherited from class `org.restlet.ext.wadl.WadlRepresentation`

`getApplication, getHtmlRepresentation, setApplication, write`

Methods inherited from class `org.restlet.ext.xml.SaxRepresentation`

`getInputSource, getSaxSource, isSecureProcessing, parse, release, setSaxSource, setSecureProcessing, write, write`

Methods inherited from class `org.restlet.ext.xml.XmlRepresentation`

`getBoolean, getDocument, getDocumentBuilder, getDomSource, getEntityResolver, getErrorHandler, getInputSource, getNamespaces, getNamespaceURI, getNode, getNodes, getNumber, getPrefix, getPrefixes, getSaxSource, getSaxSource, getSchema, getStreamSource, getText, isCoalescing, isExpandingEntityRefs, isIgnoringComments, isIgnoringExtraWhitespaces, isNamespaceAware, isValidatingDtd, isXIncludeAware, release, setCoalescing, setEntityResolver, setErrorHandler, setExpandingEntityRefs, setIgnoringComments, setIgnoringExtraWhitespaces, setNamespaceAware, setNamespaces, setSchema, setSchema, setValidatingDtd, setXIncludeAware, validate, validate, validate, validate`

Methods inherited from class `org.restlet.representation.WriterRepresentation`

`getReader`

Methods inherited from class `org.restlet.representation.CharacterRepresentation`

`getChannel, getStream, write, write`

Methods inherited from class `org.restlet.representation.Representation`

`append, exhaust, getAvailableSize, getChannel, getDigest, getDisposition, getExpirationDate, getRange, getReader, getRegistration, getSize, getStream, getText, hasKnownSize, isAvailable, isEmpty, isSelectable, isTransient, release, setAvailable, setDigest, setDisposition, setExpirationDate, setListener, setRange, setSize, setTransient, write, write, write`

Methods inherited from class `org.restlet.representation.RepresentationInfo`

`getModificationDate, getTag, setModificationDate, setTag`

Methods inherited from class `org.restlet.representation.Variant`

`createClientInfo, equals, getCharacterSet, getEncodings, getLanguages, getLocationRef, getMediaType, includes, isCompatible, setCharacterSet, setEncodings, setLanguages, setLocationRef, setLocationRef, setMediaType, toString`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `javax.xml.namespace.NamespaceContext`

`getNamespaceURI, getPrefix, getPrefixes`

Constructors

WadlCnesRepresentation

```
public WadlCnesRepresentation(ApplicationInfo application)
```

Constructs a new Wadl representation based on a new XSLT.

Parameters:
    `application` - application

Methods

getHtmlRepresentation

```
public org.restlet.representation.Representation getHtmlRepresentation()
```

Returns the HTML representation of the WADL

Returns:
    HTML representation of the WADL

Index

E

F

G

H

I