

# **DOI-Server**

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## 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 - . \_ : / +

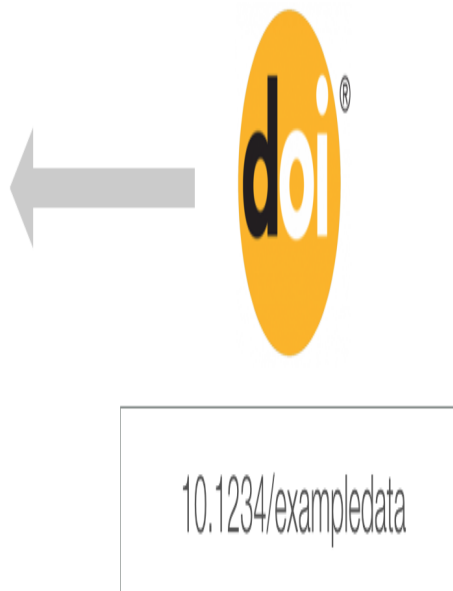
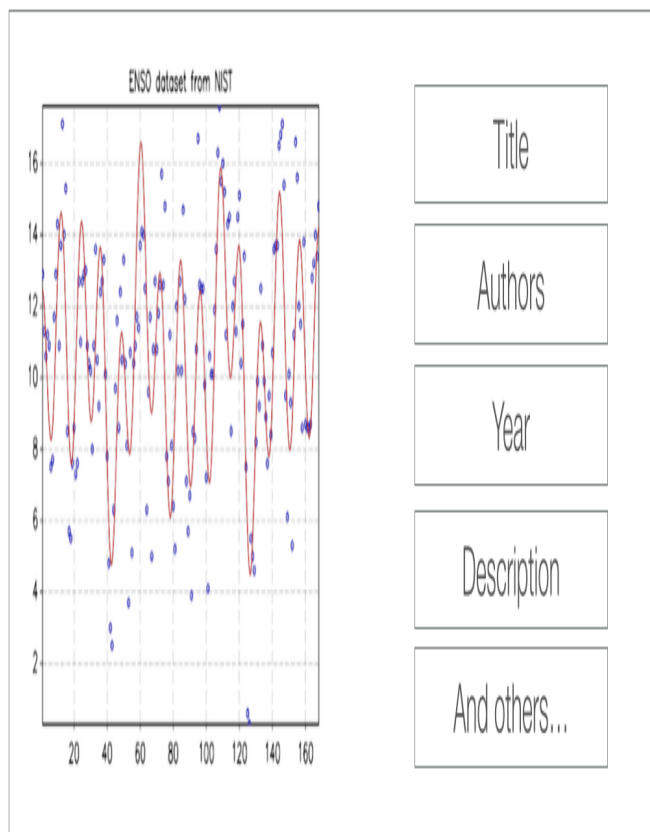
This document provides the description of the DOI server. it aims is to provide a common service to an organization so that each project of this organization can manage its own DOI according to their own access rights. The access rights are defined by the DOI server whereas the real creation of a DOI is handled between the DOI server and the DataCite API by a unique login/password. Moreover, the DOI server guarantees a unique identifier in the whole organization at condition that the project guarantees an unique identifier in its own project.

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1. Take a dataset

2. Describe it

3. Assign a DOI



4. Reuse and reference!

5. Enjoy the benefits!

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

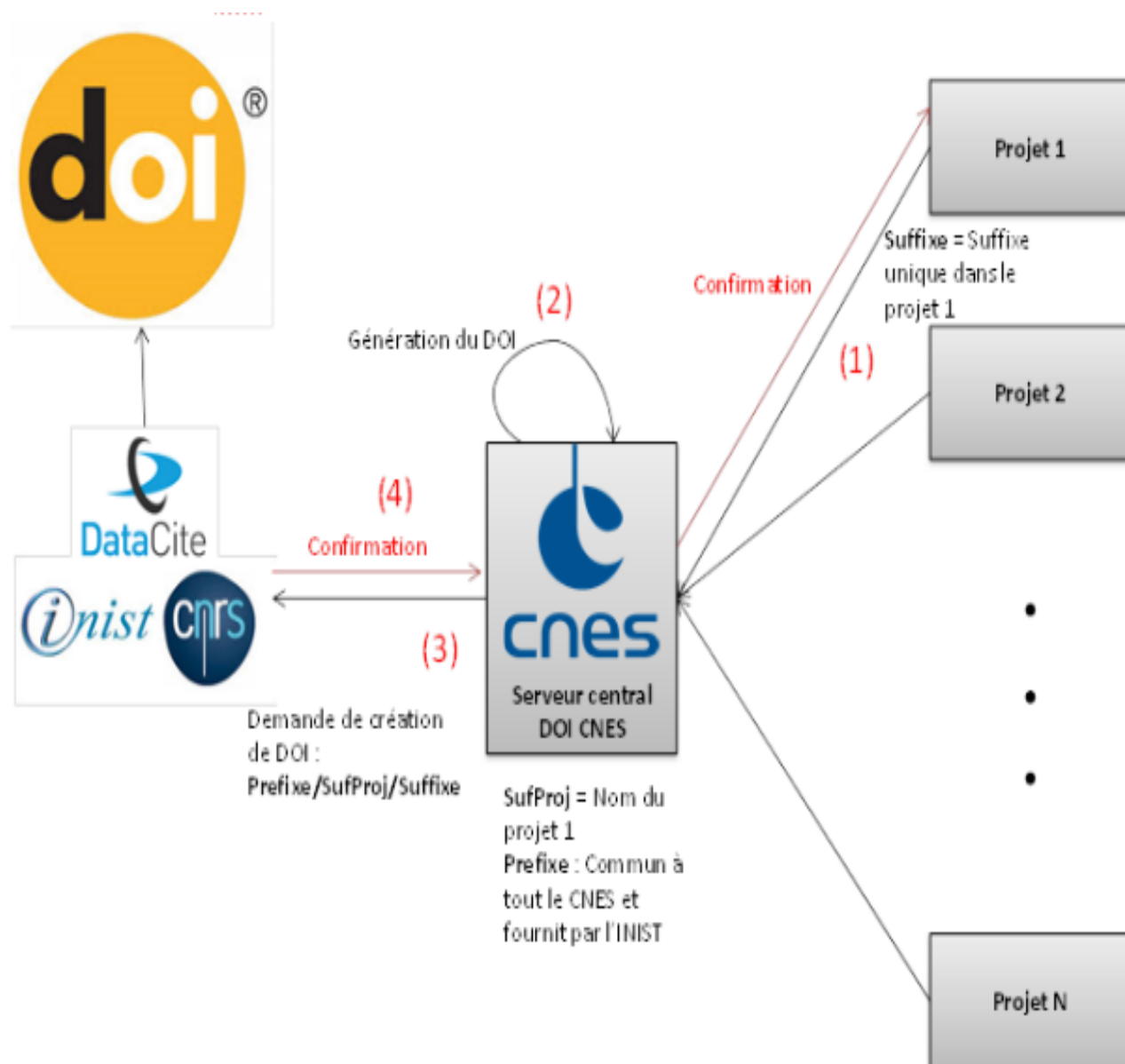
Findability

Track citations

Reusability

Measure impact

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# 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 [administration 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.

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

### Field Summary

public static final	<a href="#">DEFAULT_CORS_CREDENTIALS</a> If true, adds 'Access-Control-Allow-Credentials' header. Value: <b>true</b>
public static final	<a href="#">DEFAULT_CORS_ORIGIN</a> Default value of 'Access-Control-Allow-Origin' header.

### Constructor Summary

public	<a href="#">AbstractApplication()</a> This constructor creates an instance of proxySettings and doiSettings.
--------	---

### Method Summary

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

org.restlet.security. ChallengeAuthenticator	<a href="#"><u>createTokenAuthenticator()</u></a> Creates an authentication by token.
<a href="#"><u>DoiSettings</u></a>	<a href="#"><u>getConfig()</u></a> Returns the configuration of the DOI server.
org.apache.logging.log4j.Logger	<a href="#"><u>getLog()</u></a> Returns the logger.
<a href="#"><u>AbstractTokenDBHelper</u></a>	<a href="#"><u>getTokenDB()</u></a> Returns the token database.
void	<a href="#"><u>sendAlertWhenDataCiteFailed()</u></a> (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
```

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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:**

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Authenticator based on a challenge scheme

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## 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.

---

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**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)

```

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

public static final	<a href="#">TOKEN_TEMPLATE</a> Token template. Value: <b>tokenID</b>
public static final	<a href="#">TOKEN_URI</a> URI #TOKEN_URI to create a token. Value: <b>/token</b>
public static final	<a href="#">USERS_NAME</a> URI #USERS_NAME to handle user. Value: <b>/ {userName}</b>
public static final	<a href="#">USERS_NAME_TEMPLATE</a> Template user. Value: <b>userName</b>
public static final	<a href="#">USERS_URI</a> URI #USERS_URI to handle users. Value: <b>/users</b>

Fields inherited from class [fr.cnes.doi.application.AbstractApplication](#)

[DEFAULT\\_CORS\\_CREDENTIALS](#), [DEFAULT\\_CORS\\_ORIGIN](#)

## Constructor Summary

public	<a href="#">AdminApplication</a> ( <a href="#">ClientMDS</a> client) Constructor.
--------	--

## Method Summary

org.restlet.Restlet	<a href="#">createInboundRoot</a> () Creates a router for the AdminApplication.
List	<a href="#">getDois</a> (String idProject) Returns only the dois within the specified project from the search result.
org.apache.logging.log4j.Logger	<a href="#">getLog</a> () 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**

---

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---

## SUPERUSERS\_URI

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

URI #SUPERUSERS\_URI to handle superusers.  
Constant value: **/superusers**

---

## 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\_URI 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(ClientMDS client)
```

Constructor.

**Parameters:**

client - Client MDS

---



## 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

---

### getDois

```
public List getDois(String idProject)  
throws ClientMdsException
```

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

**Parameters:**

idProject - project ID

**Returns:**

the search result

**Throws:**

[fr.cnes.doi.exception.ClientMdsException](#) - it happens when a problem happens with Datacite

## 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	<a href="#">FORMAT_URI</a> URI #FORMAT_URI to retrieves the citation. Value: <b>/format</b>
public static final	<a href="#">LANGUAGE_URI</a> URI #LANGUAGE_URI to get the languages, which are used to format the citation. Value: <b>/language</b>
public static final	<a href="#">NAME</a> Application name. Value: <b>Cross Cite Application</b>
public static final	<a href="#">STYLES_URI</a> URI #STYLES_URI to get the styles, which are used to format the citation. Value: <b>/style</b>

Fields inherited from class [fr.cnes.doi.application.AbstractApplication](#)

[DEFAULT\\_CORS\\_CREDENTIALS](#), [DEFAULT\\_CORS\\_ORIGIN](#)

## Constructor Summary

public	<a href="#">DoiCrossCiteApplication()</a> Constructs the application.
--------	--

## Method Summary

org.restlet.Restlet	<a href="#">createInboundRoot()</a> Creates router the DOICrossCiteApplication.
<a href="#">ClientCrossCiteCitati on</a>	<a href="#">getClient()</a> Returns the client to query cross cite.
org.apache.logging.log4j.Logger	<a href="#">getLog()</a> 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\_URI 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**

(continued from last page)

## 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	<a href="#">DoiMdsApplication.API_MDS</a>
	DoiMdsApplication.API_MDS

class	<a href="#">DoiMdsApplication.SecurityPostProcessingFilter</a> DoiMdsApplication.SecurityPostProcessingFilter
-------	--

## Field Summary

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

## Fields inherited from class [fr.cnes.doi.application.AbstractApplication](#)

[DEFAULT\\_CORS\\_CREDENTIALS](#), [DEFAULT\\_CORS\\_ORIGIN](#)

## Constructor Summary

public	<a href="#">DoiMdsApplication</a> ( <a href="#">ClientMDS</a> client) Creates the Digital Object Identifier server application.
--------	--

## Method Summary

org.restlet.Restlet	<a href="#">createInboundRoot</a> () Creates a router for the DoiMdsApplication.
ApplicationInfo	<a href="#">getApplicationInfo</a> (org.restlet.Request request, org.restlet.Response response) Method to describe application in the WADL.
<a href="#">ClientMDS</a>	<a href="#">getClient</a> () Returns the client.
String	<a href="#">getDataCentrePrefix</a> () Returns the DOI prefix.
org.apache.logging.log4j.Logger	<a href="#">getLog</a> () 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**



(continued from last page)

## 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: **/doisName**

## 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(ClientMDS client)
```

Creates the Digital Object Identifier server application.

**Parameters:**

client - ClientMDS

**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:**

(continued from last page)

## 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

---

## 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	<a href="#">SecurityPostProcessingFilter</a> (org.restlet.Context context, org.restlet.Restlet next) Constructor
--------	---

## Method Summary

void	<a href="#">afterHandle</a> (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	<a href="#">CREATE_METADATA</a> Create metadata.
public static final	<a href="#">DATACITE_PROBLEM</a> Internal server error.
public static final	<a href="#">DOI_VALIDATION</a> DOI validation error.
public static final	<a href="#">LANDING_PAGE_VALIDATION</a> Fail to create the landing page related to the DOI.
public static final	<a href="#">MEDIA_VALIDATION</a> Fail to create the media related to the DOI.
public static final	<a href="#">METADATA_VALIDATION</a> Fail to validate user input parameter for creating the DOI.
public static final	<a href="#">NETWORK_PROBLEM</a> Cannot access to Datacite.
public static final	<a href="#">SECURITY_USER_CONFLICT</a> Fail to know privileges of a user.
public static final	<a href="#">SECURITY_USER_NO_ROLE</a> Fail to authorize the user.
public static final	<a href="#">SECURITY_USER_NOT_IN_SELECTED_ROLE</a> Forbidden to use this role.
public static final	<a href="#">SECURITY_USER_PERMISSION</a> Fail to create a DOI.

### Method Summary

String	<a href="#">getShortMessage()</a> Returns the short message.
--------	---

<code>org.restlet.data.Status</code>	<a href="#"><code>getStatus()</code></a> Returns the status
<code>static DoiMdsApplication.API_MDS</code>	<a href="#"><code>valueOf(String name)</code></a>
<code>static DoiMdsApplication.API_MDS[]</code>	<a href="#"><code>values()</code></a>

**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 authenticated 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 authenticated 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.)"

---

## LANDING\_PAGE\_VALIDATION

```
public static final fr.cnes.doi.application.DoiMdsApplication.API_MDS
LANDING_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"

---

(continued from last page)

## 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.

## fr.cnes.doi.client Class BaseClient

java.lang.Object

└--fr.cnes.doi.client.BaseClient

**Direct Known Subclasses:**

[ClientLandingPage](#), [ClientCrossCiteCitation](#), [ClientMDS](#)

public class **BaseClient**  
extends Object

Base client

**Author:**

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

### Field Summary

public static final	<a href="#">DATACITE MOCKSERVER_PORT</a> Port of the Datacite mockserver Value: <b>1080</b>
---------------------	---

### Constructor Summary

public	<a href="#">BaseClient</a> (String uri) Constructor.
--------	---

### Method Summary

org.restlet.resource. ClientResource	<a href="#">getClient</a> () Returns the client.
---	---

org.apache.logging.log4j. Logger	<a href="#">getLog</a> () 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

(continued from last page)

## 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.

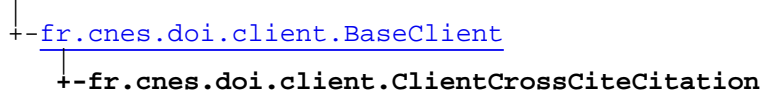
**Returns:**

the logger

# fr.cnes.doi.client

## Class ClientCrossCiteCitation

java.lang.Object



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	<a href="#">ClientCrossCiteCitation.Context</a> ClientCrossCiteCitation.Context
-------	--

### Field Summary

public static final	<a href="#">CROSS_CITE MOCK_URL</a> Service end point #CROSS_CITE MOCK_URL. Value: <b>http://localhost:1080</b>
public static final	<a href="#">CROSS_CITE_URL</a> Service end point #CROSS_CITE_URL. Value: <b>http://citation.crosscite.org</b>
public static final	<a href="#">FORMAT_URI</a> URI to get format #FORMAT_URI. Value: <b>format</b>
public static final	<a href="#">LOCALE_URI</a> URI to get locales #LOCALE_URI. Value: <b>locales</b>
public static final	<a href="#">STYLE_URI</a> URI to get styles #STYLE_URI. Value: <b>styles</b>

### Fields inherited from class [fr.cnes.doi.client.BaseClient](#)

[DATACITE MOCKSERVER\\_PORT](#)

### Constructor Summary

public	<a href="#">ClientCrossCiteCitation</a> () Creates a client to CROSS_CITE_URL with a <a href="#">prod</a> context and without a proxy.
public	<a href="#">ClientCrossCiteCitation</a> ( <a href="#">ClientCrossCiteCitation.Context</a> context) Creates a client to an URI related to the context.

## Method Summary

String	<a href="#">getFormat</a> (String doiName, String style, String language) Returns the citation of a DOI based on the selected style and language.
List	<a href="#">getLanguages</a> () Returns languages by calling #LOCALE_URI.
List	<a href="#">getStyles</a> () Returns styles by calling #STYLE_URI.
void	<a href="#">init</a> () 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`**

(continued from last page)

## 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	<a href="#">DEV</a> Development context.
public static final	<a href="#">POST_DEV</a> Post development context.
public static final	<a href="#">PRE_PROD</a> Pre production context.
public static final	<a href="#">PROD</a> Production context.

### Method Summary

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

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	<a href="#">ClientLandingPage</a> (List dois) Constructor
--------	--

### Method Summary

Map	<a href="#">getErrors</a> () Returns the errors.
boolean	<a href="#">isError</a> () Returns True when there is more than zero error otherwise False
boolean	<a href="#">isSuccess</a> () 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

---

(continued from last page)

**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](mailto:jean-christophe.malapert@cnes.fr))

### Nested Class Summary

class	<a href="#">ClientMDS.Context</a> ClientMDS.Context
class	<a href="#">ClientMDS.DATAcite_API_RESPONSE</a> ClientMDS.DATAcite_API_RESPONSE

### Field Summary

public static final	<a href="#">DATA_CITE MOCK_URL</a> Metadata store mock service endpoint #DATA_CITE MOCK_URL. Value: <b>http://localhost:1080</b>
public static final	<a href="#">DATA_CITE TEST_URL</a> Metadata store test service endpoint #DATA_CITE TEST_URL. Value: <b>https://mds.test.datacite.org</b>
public static final	<a href="#">DATA_CITE_URL</a> Metadata store service endpoint #DATA_CITE_URL. Value: <b>https://mds.datacite.org</b>
public static final	<a href="#">DOI_RESOURCE</a> DOI resource #DOI_RESOURCE. Value: <b>doi</b>
public static final	<a href="#">MEDIA_RESOURCE</a> Media resource #MEDIA_RESOURCE. Value: <b>media</b>
public static final	<a href="#">METADATA_RESOURCE</a> Metadata resource #METADATA_RESOURCE. Value: <b>metadata</b>
public static final	<a href="#">POST_DOI</a> DOI query parameter #POST_DOI. Value: <b>doi</b>

public static final	<a href="#">POST_URL</a> URL query parameter #POST_URL. Value: <b>url</b>
public static final	<a href="#">SCHEMA_DATAcite</a> Default XML schema for Datacite: #SCHEMA_DATAcite Value: <b>https://schema.datacite.org/meta/kernel-4-1/metadata.xsd</b>
public static final	<a href="#">TEST_DOI_PREFIX</a> Test DOI prefix #TEST_DOI_PREFIX. Value: <b>10.5072</b>
public static final	<a href="#">TEST_MODE</a> Test mode sets to true.

#### Fields inherited from class [fr.cnes.doi.client.BaseClient](#)

[DATAcite MOCKSERVER\\_PORT](#)

## Constructor Summary

public	<a href="#">ClientMDS</a> ( <a href="#">ClientMDS.Context</a> context) Creates a client to handle DataCite server.
public	<a href="#">ClientMDS</a> ( <a href="#">ClientMDS.Context</a> context, String login, String pwd) Creates a client to handle DataCite with a HTTP Basic authentication.
public	<a href="#">ClientMDS</a> (String login, String pwd) Creates a client to handle DataCite with a HTTP Basic authentication.

## Method Summary

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

List	<a href="#">getDois</a> (String idProject) Returns only the dois within the specified project from the search result.
String	<a href="#">getMedia</a> (String doiName) This request returns list of pairs of media type and URLs associated with a given DOI.
org.restlet.representation.Representation	<a href="#">getMetadata</a> (String doiName) Returns the metadata based on its DOI name.
<a href="#">Resource</a>	<a href="#">getMetadataAsObject</a> (String doiName) This request returns the most recent version of metadata associated with a given DOI.
<a href="#">Resource</a>	<a href="#">parseMetadata</a> (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**

(continued from last page)

---

## 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)
```



(continued from last page)

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 parameter `testMode`. 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 parameter `testMode`. 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

(continued from last page)

## 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>"

---

## getDois

```
public List getDois()
throws ClientMdsException
```

## getDois

```
public List getDois(String idProject)
    throws ClientMdsException
```

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

**Parameters:**

idProject - project ID

**Returns:**

the search result

**Throws:**

[fr.cnes.doi.exception.ClientMdsException](#) - When an error happens with Datacite

---

## 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

---

(continued from last page)

**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:**

(continued from last page)

[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"](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 marshal 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"](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 unmarshal 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
```

(continued from last page)

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

(continued from last page)

**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, UTF-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	<a href="#"><u>BAD_REQUEST</u></a> Fail to create a media or the metadata.
public static final	<a href="#"><u>DOI_INACTIVE</u></a> Get an inactive DOI.
public static final	<a href="#"><u>DOI_NOT_FOUND</u></a> Fail to get the DOI.
public static final	<a href="#"><u>FORBIDDEN</u></a> Fail to create/delete media/metadata/Landing page.
public static final	<a href="#"><u>INTERNAL_SERVER_ERROR</u></a> Internal server Error.
public static final	<a href="#"><u>PROCESS_ERROR</u></a> Fail to create a DOI because metadata must be uploaded first.
public static final	<a href="#"><u>SUCCESS</u></a> Get/Delete successfully a DOI or a media.
public static final	<a href="#"><u>SUCCESS_NO_CONTENT</u></a> Get a DOI without metadata.
public static final	<a href="#"><u>SUCCESS_CREATED</u></a> Create successfully a DOI.
public static final	<a href="#"><u>UNAUTHORIZED</u></a> Fail to authorize the user to create/delete a DOI.

### Method Summary

static String	<a href="#"><u>getMessageFromStatus</u></a> (org.restlet.data.Status statusToFind) Returns the message for a specific Status.
String	<a href="#"><u>getShortMessage</u></a> ( ) Returns the short message



<code>org.restlet.data.Status</code>	<a href="#"><code>getStatus()</code></a> Returns the status
<code>static <a href="#">ClientMDS.DATAcite_API_RESPONSE</a></code>	<a href="#"><code>valueOf(String name)</code></a>
<code>static <a href="#">ClientMDS.DATAcite_API_RESPONSE[]</a></code>	<a href="#"><code>values()</code></a>

**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

### SUCCESS\_CREATED

```
public static final fr.cnes.doi.client.ClientMDS.DATAcite_API_RESPONSE SUCCESS_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

---

(continued from last page)

## 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

## 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	<a href="#">DEV</a> Development context.
public static final	<a href="#">POST_DEV</a> Post development context.
public static final	<a href="#">PRE_PROD</a> Pre production context.
public static final	<a href="#">PROD</a> Production context.

### Method Summary

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

**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)
```

(continued from last page)

---

## 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

---

---

## 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	<a href="#">ADD_RECORD</a> Notification message when the record is added #ADD_RECORD. Value: <b>ADD</b>
public static final	<a href="#">DELETE_RECORD</a> Notification message when the record is added #DELETE_RECORD. Value: <b>DELETE</b>
public static final	<a href="#">RENAME_RECORD</a> Notification message when the record is added #RENAME_RECORD. Value: <b>RENAME</b>

### Constructor Summary

public	<a href="#">AbstractProjectSuffixDBHelper()</a>
--------	---

### Method Summary

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



abstract List	<a href="#"><code>getProjects()</code></a> Returns the database records.
abstract List	<a href="#"><code>getProjectsFromUser(String userName)</code></a> Returns the projects related to a specific user.
abstract boolean	<a href="#"><code>isExistID(int projectID)</code></a> Tests is a suffix project exists in the database.
abstract boolean	<a href="#"><code>isExistProjectName(String projectName)</code></a> Tests is the project name exists in the database.
abstract boolean	<a href="#"><code>renameProject(int projectID, String newProjectName)</code></a> 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()
```

(continued from last page)

## 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 if 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)
```

---

(continued from last page)

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.

---

(continued from last page)

**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	<a href="#">AbstractTokenDBHelper()</a>
--------	---

### Method Summary

abstract boolean	<a href="#">addToken(String jwt)</a> Adds a token in the database
abstract boolean	<a href="#">deleteToken(String jwt)</a> Deletes a token from the database.
abstract List	<a href="#">getTokens()</a> Return the token list from database.
abstract boolean	<a href="#">isExist(String jwt)</a> 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	<a href="#">ADD_USER_NOTIFICATION</a> Notification message when an user is added #ADD_USER_NOTIFICATION. Value: <b>AddUserNotification</b>
public static final	<a href="#">REMOVE_USER_NOTIFICATION</a> Notification message when an user is deleted #REMOVE_USER_NOTIFICATION. Value: <b>RemoveUserNotification</b>

## Constructor Summary

public	<a href="#">AbstractUserRoleDBHelper()</a>
--------	--

## Method Summary

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

abstract boolean	<a href="#"><code>isUserExist</code></a> (String username) Tests if the user exists.
abstract boolean	<a href="#"><code>removeDOIUser</code></a> (String username) Removes the user
abstract boolean	<a href="#"><code>removeUserToRole</code></a> (String user, int role) Removes an user from a specific role.
abstract boolean	<a href="#"><code>setUserToAdminGroup</code></a> (String admin) Add user to Administrators group
abstract boolean	<a href="#"><code>unsetUserFromAdminGroup</code></a> (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:**

(continued from last page)

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

(continued from last page)

## **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

## 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	<a href="#">authenticateUser</a> (String login, String password) Authenticates an user via the authentication service.
abstract String	<a href="#">getDOIAdmin</a> () Returns the user from the authentication access, which will be the administrator of DOI server.
abstract List	<a href="#">getDOIProjectMembers</a> () 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

## 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" 1.520, which threw ArrayIndexOutOfBoundsException

**Author:**  
disto

### Constructor Summary

public	<a href="#">MyMemoryRealm()</a> Constructor.
--------	---

### Method Summary

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

List	<a href="#"><code>getUsers()</code></a> Returns the modifiable list of users.
void	<a href="#"><code>map(org.restlet.security.Group group, org.restlet.security.Role role)</code></a> Maps a group defined in a component to a role defined in the application.
void	<a href="#"><code>map(org.restlet.security.User user, org.restlet.Application application, String roleName)</code></a> Maps a user defined in a component to a role defined in the application.
void	<a href="#"><code>map(org.restlet.security.User user, org.restlet.security.Role role)</code></a> Maps a user defined in a component to a role defined in the application.
void	<a href="#"><code>setRootGroups(List rootGroups)</code></a> Sets the modifiable list of root groups.
void	<a href="#"><code>setUsers(List users)</code></a> Sets the modifiable list of users.
void	<a href="#"><code>unmap(org.restlet.security.Group group, org.restlet.Application application, String roleName)</code></a> Unmaps a group defined in a component from a role defined in the application.
void	<a href="#"><code>unmap(org.restlet.security.Group group, org.restlet.security.Role role)</code></a> Unmaps a group defined in a component from a role defined in the application.
void	<a href="#"><code>unmap(org.restlet.security.User user, org.restlet.Application application, String roleName)</code></a> Unmaps a user defined in a component from a role defined in the application.
void	<a href="#"><code>unmap(org.restlet.security.User user, org.restlet.security.Role role)</code></a> 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)
```

(continued from last page)

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.

---



(continued from last page)

## 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.

(continued from last page)

**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` - the 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:**

(continued from last page)

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.

(continued from last page)

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	<a href="#">AuthSystemUser()</a>
--------	----------------------------------

### Method Summary

String	<a href="#">getEmail()</a> Returns the email.
String	<a href="#">getFullname()</a> Returns the full name.
String	<a href="#">getUsername()</a> Returns the username.
void	<a href="#">setEmail(String email)</a> Sets the email.
void	<a href="#">setFullname(String fullname)</a> Sets the full name.
void	<a href="#">setUsername(String username)</a> Sets the username
String	<a href="#">toString()</a>

### 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

---

(continued from last page)

**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	<a href="#">DOIProject()</a>
--------	------------------------------

### Method Summary

String	<a href="#">getProjectname()</a> Returns the project name.
int	<a href="#">getSuffix()</a> Returns the suffix.
Boolean	<a href="#">isEqualTo(DOIProject doiProject)</a> Tests a doiProject is equal to this one.
void	<a href="#">setProjectname(String projectname)</a> Sets the project name.
void	<a href="#">setSuffix(int suffix)</a> 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

(continued from last page)

## 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	<a href="#">DOIUser()</a>
--------	---------------------------

### Method Summary

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

### Methods inherited from class java.lang.Object

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

### Constructors

(continued from last page)

## 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()
```

(continued from last page)

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-Christophe Malapert (Jean-Christophe.malapert@cnes.fr)

## Constructor Summary

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

## Constructor Summary

public	<a href="#">ClienSearchDataCiteException</a> (org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	<a href="#">ClienSearchDataCiteException</a> (org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.



public	<a href="#">ClienSearchDataCiteException</a> (org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	<a href="#">ClienSearchDataCiteException</a> (org.restlet.data.Status status, String message, Throwable cause) Constructs a new exception with the specified detail HTTP status, message and cause.
public	<a href="#">ClienSearchDataCiteException</a> (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	<a href="#">getDetailMessage</a> () Returns detail message;
org.restlet.data.Status	<a href="#">getStatus</a> () 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**

(continued from last page)

## 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)
```

(continued from last page)

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	<a href="#">ClientCrossCiteException</a> (org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	<a href="#">ClientCrossCiteException</a> (org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.
public	<a href="#">ClientCrossCiteException</a> (org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	<a href="#">ClientCrossCiteException</a> (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	<a href="#">getDetailMessage</a> () Returns detail message;
org.restlet.data.Status	<a href="#">getStatus</a> () 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

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

public static final	<a href="#"><u>SUCCESS_CREATED</u></a> Operation successful. Value: <b>201</b>
public static final	<a href="#"><u>SUCCESS_NO_CONTENT</u></a> no DOIs founds. Value: <b>204</b>
public static final	<a href="#"><u>SUCCESS_OK</u></a> Operation successful. Value: <b>200</b>

## Constructor Summary

public	<a href="#"><u>ClientMdsException</u></a> (org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	<a href="#"><u>ClientMdsException</u></a> (org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.
public	<a href="#"><u>ClientMdsException</u></a> (org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	<a href="#"><u>ClientMdsException</u></a> (org.restlet.data.Status status, String message, Throwable cause) Constructs a new exception with the specified detail HTTP status, message and cause.
public	<a href="#"><u>ClientMdsException</u></a> (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	<a href="#"><u>getDetailMessage</u></a> () Returns detail message;
org.restlet.data.Status	<a href="#"><u>getStatus</u></a> () 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



(continued from last page)

---

## 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**

---

(continued from last page)

---

## 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)
```

---

(continued from last page)

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	<a href="#">DOIDbException</a> (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 DoRuntimeException

```

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

**All Implemented Interfaces:**  
Serializable

public class **DoRuntimeException**  
extends RuntimeException

Runtime Exception for the project

**Author:**  
Claire

### Constructor Summary

public	<a href="#">DoRuntimeException()</a> Constructs a new runtime exception with null as its detail message.
public	<a href="#">DoRuntimeException(String message, Throwable cause)</a> Constructs a new runtime exception with the specified detail message and cause.
public	<a href="#">DoRuntimeException(String message)</a> Constructs a new runtime exception with the specified detail message.
public	<a href="#">DoRuntimeException(Throwable cause)</a> 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

### DoRuntimeException

```
public DoRuntimeException()
```

(continued from last page)

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 `DoRuntimeException.initCause`.

---

## DoRuntimeException

```
public DoRuntimeException(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 `DoRuntimeException.getMessage()` method).  
cause - the cause (which is saved for later retrieval by the `DoRuntimeException.getCause()` method). (A null value is permitted, and indicates that the cause is nonexistent or unknown.)

---

## DoRuntimeException

```
public DoRuntimeException(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 `DoRuntimeException.initCause`.

### Parameters:

message - the detail message. The detail message is saved for later retrieval by the `DoRuntimeException.getMessage()` method

---

## DoRuntimeException

```
public DoRuntimeException(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 `DoRuntimeException.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	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">DoiMdsApplication.API_MDS</a> error) Creates an exception based on the app and the error coming from Doi-server.
public	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">DoiMdsApplication.API_MDS</a> error, Exception ex) Creates an exception based on the app and the error coming from Doi-server.
public	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">DoiMdsApplication.API_MDS</a> error, String description) Creates an exception based on the app and the error coming from Doi-server.
public	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">DoiMdsApplication.API_MDS</a> error, String description, Throwable cause) Creates an exception based on the app and the error coming from Doi-server.
public	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">ClientMDS.DATAACITE_API_RESPONSE</a> error) Creates an exception based on the app and the error coming from Doi-server.
public	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">ClientMDS.DATAACITE_API_RESPONSE</a> error, Exception ex) Creates an exception based on the app and the error coming from Doi-server.
public	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">ClientMDS.DATAACITE_API_RESPONSE</a> error, String description) Creates an exception based on the app and the error coming from Doi-server.
public	<a href="#">DoiServerException</a> (org.restlet.Application app, <a href="#">ClientMDS.DATAACITE_API_RESPONSE</a> error, String description, Throwable cause) Creates an exception based on the app and the error coming from Doi-server.

public	<a href="#">DoiServerException</a> (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	<a href="#">DoiServerException</a> (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.



(continued from last page)

**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

---

(continued from last page)

## 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	<a href="#">TokenSecurityException</a> (org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	<a href="#">TokenSecurityException</a> (org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.
public	<a href="#">TokenSecurityException</a> (org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	<a href="#">TokenSecurityException</a> (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	<a href="#">getStatus</a> () 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

(continued from last page)

## 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	<a href="#">ValidationMetadataException()</a> Constructs a new ValidationMetadataException with null as its detail message.
public	<a href="#">ValidationMetadataException(String message)</a> Constructs a ValidationMetadataException with the specified detail message.
public	<a href="#">ValidationMetadataException(Throwable cause)</a> 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	<a href="#">ValidationMetadataException(String message, Throwable cause)</a> 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()
```

(continued from last page)

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, 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



(continued from last page)

## 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:

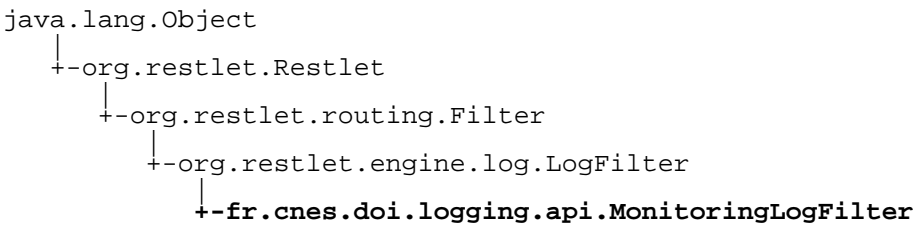
context - context

### Returns:

filter

# fr.cnes.doi.logging.api

## Class 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	<a href="#">MonitoringLogFilter</a> (org.restlet.Context context, <a href="#">DoiMonitoring</a> doiMonitoring, org.restlet.service.LogService logService) Constructs a filter that filters applications to monitor

Method Summary	
void	<a href="#">afterHandle</a> (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	<a href="#">JsonMessage</a> (Object object) Constructs a JsonMessage.
--------	--

## Method Summary

String	<a href="#">getFormat</a> ()
String	<a href="#">getFormattedMessage</a> ()
Object[]	<a href="#">getParameters</a> ()
Throwable	<a href="#">getThrowable</a> ()

### 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	<a href="#">DoiSecurityLogFilter()</a> Instantiates a new sitools log filter.
--------	--

### Method Summary

void	<a href="#">afterHandle</a> (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	<a href="#">AbstractAuthenticationPluginHelper()</a> 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	<a href="#">AbstractProjectSuffixPluginHelper()</a> 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	<a href="#">AbstractTokenDBPluginHelper</a> ( ) 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

(continued from last page)

## **AbstractTokenDBPluginHelper**

`protected AbstractTokenDBPluginHelper()`

Empty constructor.

## 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	<a href="#">AbstractUserRolePluginHelper()</a> 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.

# 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	<a href="#">initConnection()</a> Init the connection
abstract boolean	<a href="#">isConfigured()</a> Checks if the plugin is already configured
abstract void	<a href="#">release()</a> Release the plugin.
abstract void	<a href="#">setConfiguration</a> (Object configuration) Sets the configuration.
abstract StringBuilder	<a href="#">validate()</a> 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

(continued from last page)

## 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
```

Initiates the connection

**Throws:**

[DoiRuntimeException](#) - When an connection error happens

---

## release

```
public abstract void release()
```

Release the plugin.

# 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 <a href="#">AbstractAuthenticationPluginHelper</a>	<a href="#">getAuthenticationSystem()</a> Returns the concrete implementation of the authentication system.
static <a href="#">AbstractProjectSuffixPluginHelper</a>	<a href="#">getProjectSuffix()</a> Returns the concrete implementation of the suffix project db.
static <a href="#">AbstractTokenDBPluginHelper</a>	<a href="#">getToken()</a> Returns the concrete implementation of the token db.
static <a href="#">AbstractUserRolePluginHelper</a>	<a href="#">getUserManagement()</a> Returns the concrete implementation of the user management interface.
static void	<a href="#">init</a> (Map settings) Loads the path of plugins from Settings.
static boolean	<a href="#">isPassword</a> (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

(continued from last page)

---

## 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	<a href="#">getAuthor()</a> Returns the author of the plugin.
abstract String	<a href="#">getDescription()</a> Returns the description of the plugin
abstract String	<a href="#">getLicense()</a> Returns the license of the plugin.
abstract String	<a href="#">getName()</a> Returns the name of the plugin.
abstract String	<a href="#">getOwner()</a> Returns the owner of the plugin.
abstract String	<a href="#">getVersion()</a> 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 Utills

java.lang.Object

└--fr.cnes.doi.plugin.Utills

public final class **Utills**  
extends Object

Utility class for plugins.

**Author:**

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

### Method Summary

static void	<a href="#">addPath</a> (String path) Adds a path in the classPath.
static void	<a href="#">loadFileInClassPath</a> (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



(continued from last page)

## 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

---

**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	<a href="#">LDAP_ATTR_FULLNAME</a> Attributes name in LDAP for fullname. Value: <b>Starter.LDAP.attr.fullname</b>
public static final	<a href="#">LDAP_ATTR_MAIL</a> Attributes name in LDAP for mail. Value: <b>Starter.LDAP.attr.mail</b>
public static final	<a href="#">LDAP_ATTR_USERNAME</a> Attributes name in LDAP for username. Value: <b>Starter.LDAP.attr.username</b>
public static final	<a href="#">LDAP_DOI_ADMIN</a> LDAP username who is the administrator of the DOI server Value: <b>Starter.LDAP.user.admin</b>
public static final	<a href="#">LDAP_PROJECT</a> LDAP project Value: <b>Starter.LDAP.project</b>
public static final	<a href="#">LDAP_PWD</a> LDAP pwd Value: <b>Starter.LDAP.password</b>
public static final	<a href="#">LDAP_SEARCH_GROUP</a> Specifies the filter expression to get the group. Value: <b>Starter.LDAP.search.group</b>
public static final	<a href="#">LDAP_SEARCH_USER</a> Specifies the filter expression to get the users. Value: <b>Starter.LDAP.search.user</b>

public static final	<a href="#">LDAP_URL</a> LDAP url Value: <b>Starter.LDAP.url</b>
public static final	<a href="#">LDAP_USER</a> LDAP user Value: <b>Starter.LDAP.user</b>

## Constructor Summary

public	<a href="#">DefaultLDAPImpl()</a>
--------	-----------------------------------

## Method Summary

boolean	<a href="#">authenticateUser</a> (String login, String password)
List	<a href="#">getAllDOIProjectMembers</a> ( javax.naming.ldap.InitialLdapContext context) Search on LDAP all users which are in the group Consts.LDAP_PROJECT.
String	<a href="#">getAuthor</a> ()
String	<a href="#">getDescription</a> ()
String	<a href="#">getDOIAdmin</a> ()
List	<a href="#">getDOIProjectMembers</a> ()
String	<a href="#">getLicense</a> ()
String	<a href="#">getName</a> ()
String	<a href="#">getOwner</a> ()
String	<a href="#">getVersion</a> ()
void	<a href="#">initConnection</a> ()
boolean	<a href="#">isConfigured</a> ()
static boolean	<a href="#">isPassword</a> (String key) Checks if the keyword is a password.
void	<a href="#">release</a> ()
void	<a href="#">setConfiguration</a> (Object configuration)
StringBuilder	<a href="#">validate</a> ()

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
```

(continued from last page)

---

## 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()
```

(continued from last page)

---

## 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	<a href="#">DefaultProjectSuffixImpl()</a>
--------	--

## Method Summary

boolean	<a href="#">addProjectSuffix</a> (int projectID, String projectName) Adds a suffix project in the database.
boolean	<a href="#">deleteProject</a> (int projectID) Deletes a suffix project from the database.
List	<a href="#">getAllDOIUsersForProject</a> (int doiSuffix) Returns the users related to a project.
String	<a href="#">getAuthor</a> ()
String	<a href="#">getDescription</a> ()
int	<a href="#">getIDFrom</a> (String projectName) Returns the project suffix based on the project name.
String	<a href="#">getLicense</a> ()
String	<a href="#">getName</a> ()
String	<a href="#">getOwner</a> ()

String	<a href="#"><u>getProjectFrom</u></a> (int projectID) Returns the project name based on the suffix project.
List	<a href="#"><u>getProjects</u></a> () Returns the database records.
List	<a href="#"><u>getProjectsFromUser</u></a> (String userName) Returns the projects related to a specific user.
String	<a href="#"><u>getVersion</u></a> ()
void	<a href="#"><u>initConnection</u></a> ()
boolean	<a href="#"><u>isConfigured</u></a> ()
boolean	<a href="#"><u>isExistID</u></a> (int projectID) Tests is a suffix project exists in the database.
boolean	<a href="#"><u>isExistProjectName</u></a> (String projectName) Tests is the project name exists in the database.
static boolean	<a href="#"><u>isPassword</u></a> (String key) Checks if the keyword is a password.
void	<a href="#"><u>release</u></a> ()
boolean	<a href="#"><u>renameProject</u></a> (int projectId, String newProjectName) Rename a project in the database.
void	<a href="#"><u>setConfiguration</u></a> (Object configuration)
StringBuilder	<a href="#"><u>validate</u></a> ()

#### 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.

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---

## 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()
```

---

---

(continued from last page)

## 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	<a href="#">DefaultTokenImpl()</a>
--------	------------------------------------

## Method Summary

boolean	<a href="#">addToken(String jwt)</a> Adds a token in the database
boolean	<a href="#">deleteToken(String jwt)</a> Deletes a token from the database.
String	<a href="#">getAuthor()</a>
String	<a href="#">getDescription()</a>
String	<a href="#">getLicense()</a>
String	<a href="#">getName()</a>
String	<a href="#">getOwner()</a>
List	<a href="#">getTokens()</a> Return the token list from database.
String	<a href="#">getVersion()</a>
void	<a href="#">initConnection()</a>

boolean	<a href="#"><u>isConfigured()</u></a>
boolean	<a href="#"><u>isExist</u></a> (String jwt) Tests if the token exists in the database.
static boolean	<a href="#"><u>isPassword</u></a> (String key) Checks if the keyword is a password.
void	<a href="#"><u>release</u></a> ()
void	<a href="#"><u>setConfiguration</u></a> (Object configuration)
StringBuilder	<a href="#"><u>validate</u></a> ()

#### 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)
```

(continued from last page)

---

## 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()
```

---



---

(continued from last page)

## 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	<a href="#">DefaultUserRoleImpl()</a>
--------	---------------------------------------

## Method Summary

boolean	<a href="#">addDOIUser</a> (String username, Boolean admin) Add a DOI user
boolean	<a href="#">addDOIUser</a> (String username, Boolean admin, String email) Add a DOI user
boolean	<a href="#">addUserToRole</a> (String user, int role) Adds an user to a specific role.
String	<a href="#">getAuthor</a> ()
String	<a href="#">getDescription</a> ()
String	<a href="#">getLicense</a> ()
String	<a href="#">getName</a> ()
String	<a href="#">getOwner</a> ()
List	<a href="#">getUsers</a> () Returns the allowed users for authentication.

List	<a href="#"><u>getUsersFromRole</u></a> (int roleName) Get users from a specific role.
String	<a href="#"><u>getVersion</u></a> ()
void	<a href="#"><u>initConnection</u></a> ()
boolean	<a href="#"><u>isConfigured</u></a> ()
static boolean	<a href="#"><u>isPassword</u></a> (String key) Checks if the keyword is a password.
boolean	<a href="#"><u>isUserExist</u></a> (String username) Tests if the user exists.
void	<a href="#"><u>release</u></a> ()
boolean	<a href="#"><u>removeDOIUser</u></a> (String username) Removes the user
boolean	<a href="#"><u>removeUserToRole</u></a> (String user, int role) Removes an user from a specific role.
void	<a href="#"><u>setConfiguration</u></a> (Object configuration)
boolean	<a href="#"><u>setUserToAdminGroup</u></a> (String user) Add user to Administrators group
boolean	<a href="#"><u>unsetUserFromAdminGroup</u></a> (String user) Remove user to Administrators group
StringBuilder	<a href="#"><u>validate</u></a> ()

#### 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	<a href="#">DB_MAX_ACTIVE_CONNECTIONS</a> Maximum number of active connections that can be allocated at the same time. Value: <b>Starter.Database.MaxActiveConnections</b>
public static final	<a href="#">DB_MAX_IDLE_CONNECTIONS</a> Minimum number of connection object that are to be kept alive in the pool Value: <b>Starter.Database.MaxIdleConnections</b>
public static final	<a href="#">DB_MIN_IDLE_CONNECTIONS</a> Minimum number of connection object that are to be kept alive in the pool Value: <b>Starter.Database.MinIdleConnections</b>
public static final	<a href="#">DB_PWD</a> Database password Value: <b>Starter.Database.Pwd</b>
public static final	<a href="#">DB_URL</a> Database url Value: <b>Starter.Database.Doidburl</b>
public static final	<a href="#">DB_USER</a> Database user Value: <b>Starter.Database.User</b>

### Constructor Summary

public	<a href="#">DOIDbDataAccessServiceImpl()</a> Constructor.
public	<a href="#">DOIDbDataAccessServiceImpl(String dbUrl, String dbUser, String dbPwd, Map options)</a> Create the implementation of DOI database by creation the JDBC connection from a specific configuration file.



## Method Summary

void	<a href="#"><u>addDOIProject</u></a> (int suffix, String projectname)
void	<a href="#"><u>addDOIProjectToUser</u></a> (String username, int suffix)
void	<a href="#"><u>addDOIUser</u></a> (String username, Boolean admin)
void	<a href="#"><u>addDOIUser</u></a> (String username, Boolean admin, String email)
void	<a href="#"><u>addToken</u></a> (String token)
void	<a href="#"><u>close</u></a> ()
void	<a href="#"><u>deleteToken</u></a> (String token)
List	<a href="#"><u>getAllDOIProjects</u></a> ()
List	<a href="#"><u>getAllDOIProjectsForUser</u></a> (String username)
List	<a href="#"><u>getAllDOIUsers</u></a> ()
List	<a href="#"><u>getAllDOIUsersForProject</u></a> (int suffix)
String	<a href="#"><u>getDOIProjectName</u></a> (int suffix)
List	<a href="#"><u>getTokens</u></a> ()
void	<a href="#"><u>init</u></a> (String dbUrl, String dbUser, String dbPwd, Map options) Initialize the JDBC connection when it is not defined.
boolean	<a href="#"><u>isAdmin</u></a> (String username)
boolean	<a href="#"><u>isUserExist</u></a> (String username)
void	<a href="#"><u>removeDOIProject</u></a> (int suffix)
void	<a href="#"><u>removeDOIProjectFromUser</u></a> (String username, int suffix)
void	<a href="#"><u>removeDOIUser</u></a> (String username)
void	<a href="#"><u>renameDOIProject</u></a> (int suffix, String newprojectname)
void	<a href="#"><u>setAdmin</u></a> (String username)
void	<a href="#"><u>unsetAdmin</u></a> (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](#)

[addDOIPProject](#), [addDOIPProjectToUser](#), [addDOIUser](#), [addDOIUser](#), [addToken](#), [close](#), [deleteToken](#), [getAllDOIPProjects](#), [getAllDOIPProjectsForUser](#), [getAllDOIUsers](#), [getAllDOIUsersForProject](#), [getDOIPProjectName](#), [getTokens](#), [isAdmin](#), [isUserExist](#), [removeDOIPProject](#), [removeDOIPProjectFromUser](#), [removeDOIUser](#), [renameDOIPProject](#), [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

(continued from last page)

---

## 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
```

---

(continued from last page)

---

## 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
```

# fr.cnes.doi.plugin.impl.db.impl

## Class JDBCCConnector

java.lang.Object  
└-fr.cnes.doi.plugin.impl.db.impl.JDBCCConnector

public class **JDBCCConnector**  
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	<a href="#">DEFAULT_MAX_ACTIVE_CONNECTION</a> Default max active connection #DEFAULT_MAX_ACTIVE_CONNECTION. Value: <b>50</b>
public static final	<a href="#">DEFAULT_MAX_IDLE_CONNECTION</a> Default max IDL connection #DEFAULT_MAX_IDLE_CONNECTION. Value: <b>50</b>

public static final

[DEFAULT\\_MIN\\_IDLE\\_CONNECTION](#)

Default min IDL connection #DEFAULT\_MIN\_IDLE\_CONNECTION.  
Value: **10**

## Constructor Summary

public

[JDBCCConnector](#)(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

### JDBCCConnector

```
public JDBCCConnector(String dbUrl,
                      String dbUser,
                      String dbPwd,
                      Map options)
```

Creates the JDBC connector based on a specific configuration file.



---

(continued from last page)

**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

<a href="#">DOIDbDataAccessService</a>	<a href="#">getDatabaseAccess()</a> Returns the database access.
static <a href="#">DatabaseSingleton</a>	<a href="#">getInstance()</a> Returns the instance
void	<a href="#">init</a> (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

(continued from last page)

options - database options

---

## getDatabaseAccess

```
public DOIDbDataAccessService getDatabaseAccess ( )
```

Returns the database access.

**Returns:**

the database access.

## 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	<a href="#">addDOIProject</a> (int suffix, String projectname) Add a DOI project
abstract void	<a href="#">addDOIProjectToUser</a> (String username, int suffix) Assign a DOI project to a user
abstract void	<a href="#">addDOIUser</a> (String username, Boolean admin) Add a DOI user
abstract void	<a href="#">addDOIUser</a> (String username, Boolean admin, String email) Add a DOI user
abstract void	<a href="#">addToken</a> (String token) Add token
abstract void	<a href="#">close</a> () Close and release all the Data access connections.
abstract void	<a href="#">deleteToken</a> (String token) Delete token
abstract List	<a href="#">getAllDOIProjects</a> () Get all DOI projects from data base
abstract List	<a href="#">getAllDOIProjectsForUser</a> (String username) Get Projects related to a given username
abstract List	<a href="#">getAllDOIUsers</a> () Get all DOI users from data base
abstract List	<a href="#">getAllDOIUsersForProject</a> (int suffix) Get Users from a given project.
abstract String	<a href="#">getDOIProjectName</a> (int suffix) Get Project name from its suffix.
abstract List	<a href="#">getTokens</a> () Get tokens
abstract boolean	<a href="#">isAdmin</a> (String username) Check if user is an admin user

abstract boolean	<a href="#"><code>isUserExist</code></a> (String username) Check if user exists in the database
abstract void	<a href="#"><code>removeDOIProject</code></a> (int suffix) Remove a DOI project
abstract void	<a href="#"><code>removeDOIProjectFromUser</code></a> (String username, int suffix) Remove a DOI project from a user
abstract void	<a href="#"><code>removeDOIUser</code></a> (String username) Remove a DOI user
abstract void	<a href="#"><code>renameDOIProject</code></a> (int suffix, String newprojectname) Rename DOI project from its suffix.
abstract void	<a href="#"><code>setAdmin</code></a> (String username) Add admin right to a user
abstract void	<a href="#"><code>unsetAdmin</code></a> (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

---

(continued from last page)

## 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

---



(continued from last page)

---

## 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

---

(continued from last page)

## 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	<a href="#">AbstractResource</a> ()
--------	-------------------------------------

## Method Summary

void	<a href="#">addRequestDocToMethod</a> (MethodInfo info, List params) Adds Wadl description of the request to the method.
void	<a href="#">addRequestDocToMethod</a> (MethodInfo info, List params, RepresentationInfo rep) Adds Wadl description of the request to the method.
void	<a href="#">addRequestDocToMethod</a> (MethodInfo info, ParameterInfo param) Adds Wadl description of the request to a method.
void	<a href="#">addResponseDocToMethod</a> (MethodInfo info, ResponseInfo response) Adds Wadl description of the response to a method.
ParameterInfo	<a href="#">createQueryParamDoc</a> (String name, ParameterStyle style, String doc, boolean isRequired, String datatype) Creates a query parameter.
RepresentationInfo	<a href="#">createQueryRepresentationDoc</a> (String identifier, org.restlet.data.MediaType mediaType, String doc, String xmlElement) Creates query representation.
ResponseInfo	<a href="#">createResponseDoc</a> (org.restlet.data.Status status, String doc) Creates a textual explanation of the response for a given status.

ResponseInfo	<a href="#"><code>createResponseDoc</code></a> (org.restlet.data.Status status, String doc, RepresentationInfo representation) Creates a textual explanation of the response for a given status.
ResponseInfo	<a href="#"><code>createResponseDoc</code></a> (org.restlet.data.Status status, String doc, String refRepresentation) Creates a textual explanation of the response for a given status.
void	<a href="#"><code>doInit</code></a> () Init
RepresentationInfo	<a href="#"><code>htmlRepresentation</code></a> () projects representation
boolean	<a href="#"><code>isObjectExist</code></a> (Object obj) Test if an object is null.
boolean	<a href="#"><code>isObjectNotExist</code></a> (Object obj) Test if an object is not null.
boolean	<a href="#"><code>isValueExist</code></a> (org.restlet.data.Form form, String parameterName) Tests if the form is not null and the parameter exists in the form.
boolean	<a href="#"><code>isValueNotExist</code></a> (org.restlet.data.Form form, String parameterName) The opposite of <a href="#"><code>isValueExist(Form, String)</code></a>
RepresentationInfo	<a href="#"><code>stringRepresentation</code></a> () projects representation

**Methods inherited from class org.restlet.ext.wadl.WadlServerResource**

canDescribe, createHtmlRepresentation, createWadlRepresentation, 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, 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

(continued from last page)

## 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

---

(continued from last page)

---

## 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

---

(continued from last page)

**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	<a href="#">AuthenticateResource()</a>
--------	--

### Method Summary

org.restlet.representation.Representation	<a href="#">checkAuth()</a>
---	-----------------------------

#### 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](#), [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	<a href="#">ConfigIhmResource()</a>
--------	-------------------------------------

### Method Summary

void	<a href="#">describeGet</a> (MethodInfo info)
void	<a href="#">doInit</a> () Init
org.restlet.representation.Representation	<a href="#">getConfig</a> () 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()
```



(continued from last page)

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	<a href="#">FooterIhmResource()</a>
--------	-------------------------------------

### Method Summary

void	<a href="#">describeGet</a> (MethodInfo info)
void	<a href="#">doInit</a> ()
org.restlet.representation.Representation	<a href="#">getFooter</a> () 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()
```

(continued from last page)

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	<a href="#">PROJECT_NAME_PARAMETER</a> Parameter for the project name #PROJECT_NAME_PARAMETER. Value: <b>newProjectName</b>
---------------------	---

### Constructor Summary

public	<a href="#">ManageProjectsResource</a> ( )
--------	--

### Method Summary

void	<a href="#">deleteProject</a> () Delete the project from database.
void	<a href="#">describeDelete</a> (MethodInfo info)
void	<a href="#">describePost</a> (MethodInfo info)
void	<a href="#">doInit</a> () Set-up method that can be overridden in order to initialize the state of the resource.
void	<a href="#">renameProject</a> (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, 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, 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

(continued from last page)

## 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	<a href="#">ManageSuperUserResource</a> ( )
--------	---

### Method Summary

void	<a href="#">deleteSuperUser</a> ( ) Delete the SUPERUSER from database.
void	<a href="#">describeDelete</a> (MethodInfo info)
void	<a href="#">describeGet</a> (MethodInfo info)
void	<a href="#">doInit</a> ( ) Set-up method that can be overridden in order to initialize the state of the resource.
boolean	<a href="#">isUserExistAndAdmin</a> ( ) 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](#), [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	<a href="#">SUPERUSER_NAME_PARAMETER</a> Parameter for the SUPERUSER name #SUPERUSER_NAME_PARAMETER. Value: <b>superUserName</b>
---------------------	--

### Constructor Summary

public	<a href="#">ManageSuperUsersResource</a> ()
--------	---

### Method Summary

void	<a href="#">createSuperUser</a> (org.restlet.data.Form mediaForm) Rename the SUPERUSER from the SUPERUSER id sent in url.
void	<a href="#">doInit</a> () Set-up method that can be overridden in order to initialize the state of the resource.
List	<a href="#">getSuperUsersAsJson</a> () 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, 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, 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

(continued from last page)

## 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	<a href="#">USER_NAME_PARAMETER</a> Parameter for the user name #USER_NAME_PARAMETER. Value: <b>user</b>
---------------------	--

### Constructor Summary

public	<a href="#">ManageUsersResource()</a>
--------	---------------------------------------

### Method Summary

void	<a href="#">addUserToProject</a> (org.restlet.data.Form mediaForm) Adds user to project
void	<a href="#">deleteProject</a> () Delete the project
void	<a href="#">doInit</a> () Set-up method that can be overridden in order to initialize the state of the resource.
List	<a href="#">getUsers</a> () 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, 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 a user to a project.  
Constant value: **user**

## Constructors

(continued from last page)

## 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	<a href="#">RedirectingResource()</a>
--------	---------------------------------------

### Method Summary

org.restlet.representation.Representation	<a href="#">doGet()</a>
---	-------------------------

#### 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	<a href="#">SuffixProjectsDoisResource()</a>
--------	--

### Method Summary

void	<a href="#">describeGet</a> (MethodInfo info) Describes a GET method.
void	<a href="#">doInit</a> () Set-up method that can be overridden in order to initialize the state of the resource.
List	<a href="#">getProjectsNameAsJson</a> () 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](#), [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

## 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	<a href="#">NB_DIGITS</a> Number of digits (#NB_DIGITS) in which the suffix project is encoded. Value: <b>6</b>
public static final	<a href="#">PROJECT_NAME_PARAMETER</a> Parameter for the project name #PROJECT_NAME_PARAMETER. Value: <b>projectName</b>
public static final	<a href="#">USER_PARAMETER</a> Query parameter for user #USER_PARAMETER. Value: <b>user</b>

### Constructor Summary

public	<a href="#">SuffixProjectsResource</a> ( )
--------	--

### Method Summary

org.restlet.representation.Representation	<a href="#">createProject</a> (org.restlet.data.Form mediaForm) Creates a suffix project based on the project name.
void	<a href="#">describeGet</a> (MethodInfo info) Describes a GET method.
void	<a href="#">describePost</a> (MethodInfo info) Describes a POST method.
void	<a href="#">doInit</a> ( ) Set-up method that can be overridden in order to initialize the state of the resource.
Map	<a href="#">getProjectsNameAsJson</a> ( ) 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](#), [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**

(continued from last page)

## 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.



(continued from last page)

**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	<a href="#">AMOUNT_OF_TIME_PARAMETER</a> Amount of time for which the token is not expired. Value: <b>amountTime</b>
public static final	<a href="#">IDENTIFIER_PARAMETER</a> User ID of the operator that creates the token. Value: <b>identifier</b>
public static final	<a href="#">PROJECT_ID_PARAMETER</a> Token for a specific project. Value: <b>projectID</b>
public static final	<a href="#">UNIT_OF_TIME_PARAMETER</a> Unit of time used to define the expiration time of the token. Value: <b>typeOfTime</b>

### Constructor Summary

public	<a href="#">TokenResource()</a>
--------	---------------------------------

### Method Summary

String	<a href="#">createToken</a> (org.restlet.data.Form infoForm) Creates and stores a token.
void	<a href="#">deleteToken</a> () Deletes token.
void	<a href="#">describeGet</a> (MethodInfo info) Describes GET method.

void	<a href="#"><u>describePost</u></a> (MethodInfo info) Describes POST method.
void	<a href="#"><u>doInit</u></a> () Set-up method that can be overridden in order to initialize the state of the resource
org.restlet.representation.Representation	<a href="#"><u>getTokenInformation</u></a> () 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`, `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

(continued from last page)

## 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](http://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	<a href="#">DOI_PARAMETER</a> Parameter providing the digital object identifier #DOI_PARAMETER. Value: <b>doi</b>
public static final	<a href="#">LANG_PARAMETER</a> Language parameter to format the citation #LANG_PARAMETER. Value: <b>lang</b>
protected volatile	<a href="#">LOG</a> Logger.
public static final	<a href="#">STYLE_PARAMETER</a> Style parameter to format the citation #STYLE_PARAMETER. Value: <b>style</b>

## Constructor Summary

public	<a href="#">BaseCitationResource</a> ()
--------	---

## Method Summary

void	<a href="#">doInit</a> () Init.
<a href="#">DoiCrossCiteApplication</a>	<a href="#">getApp</a> () Returns CrossCiteApplication.

RepresentationInfo	<a href="#">listRepresentation</a> (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](#), [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.

(continued from last page)

**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	<a href="#">FormatCitationResource()</a>
--------	--

## Method Summary

void	<a href="#">describeGet</a> (MethodInfo info) Describes the Get Method.
void	<a href="#">doInit</a> () Init by getting doi, lang and style values.
String	<a href="#">getFormat</a> () 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`, `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

(continued from last page)

## 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	<a href="#">LanguageCitationResource()</a>
--------	--

### Method Summary

void	<a href="#">describeGet</a> (MethodInfo info) Describes the Get Method.
void	<a href="#">doInit</a> () Init.
List	<a href="#">getLanguages</a> () 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, 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

(continued from last page)

## 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)
```

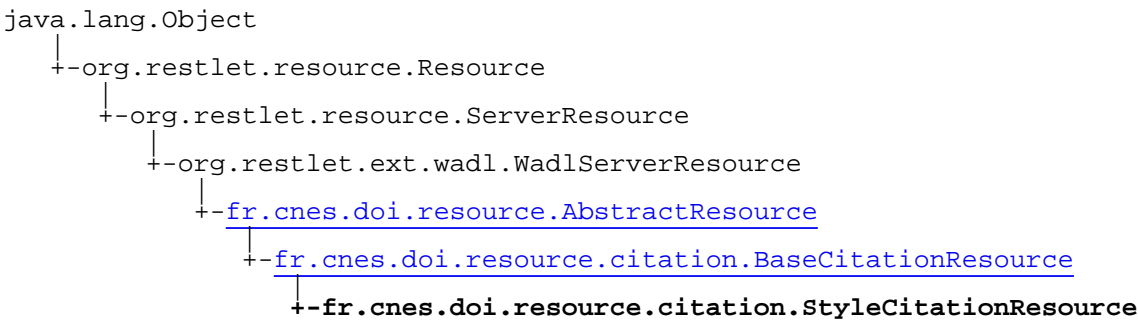
Describes the Get Method.

**Parameters:**

info - Wadl description



fr.cnes.doi.resource.citation
Class StyleCitationResource



public class StyleCitationResource
extends BaseCitationResource

The supported styles for citation.
Author:
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Table with 1 row: Fields inherited from class fr.cnes.doi.resource.citation.BaseCitationResource. Content: DOI\_PARAMETER, LANG\_PARAMETER, LOG, STYLE\_PARAMETER.

Table with 1 row: Constructor Summary. Content: public StyleCitationResource().

Table with 1 row: Method Summary. Content: describeGet(MethodInfo info) - Describes the Get Method.; doInit() - Init.; getStyles() - Returns the styles as JSON array for a citation.

Table with 1 row: Methods inherited from class fr.cnes.doi.resource.citation.BaseCitationResource. Content: doInit, getApp, listRepresentation.

Table with 1 row: Methods inherited from class fr.cnes.doi.resource.AbstractResource. Content: addRequestDocToMethod, addResponseDocToMethod, createQueryParamDoc, createQueryRepresentationDoc, createResponseDoc, doInit, htmlRepresentation, isObjectExist, isObjectNotExist, isValueExist, isValueNotExist, stringRepresentation.

Table with 1 row: Methods inherited from class org.restlet.ext.wadl.WadlServerResource.

canDescribe, createHtmlRepresentation, createWadlRepresentation, 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

(continued from last page)

## 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	<a href="#">DOI_PARAMETER</a> The parameter that describes the DOI name #DOI_PARAMETER. Value: <b>doi</b>
protected volatile	<a href="#">LOG</a> Logger.
public static final	<a href="#">URL_PARAMETER</a> The parameter that describes the landing page related to the DOI #URL_PARAMETER. Value: <b>url</b>

### Constructor Summary

public	<a href="#">BaseMdsResource</a> ()
--------	------------------------------------

### Method Summary

void	<a href="#">checkPermission</a> (String doiName, String selectedRole) Checks permissions to access according to the role of the user and the DOI name.
void	<a href="#">describeDelete</a> (MethodInfo info) Describes WADL representation for <a href="#">checkPermission(String, String)</a> method.
void	<a href="#">describePost</a> (MethodInfo info) Describes WADL representation for <a href="#">checkPermission(String, String)</a> method.
void	<a href="#">doInit</a> () Init.

RepresentationInfo	<a href="#"><u>explainRepresentation()</u></a> Body representation.
String	<a href="#"><u>extractSelectedRoleFromRequestIfExists()</u></a> Extract <i>selectedRole</i> from HTTP header.
String	<a href="#"><u>getAttributePath(String basePath)</u></a> Retrieves path by cleaning query parameters.
<a href="#"><u>DoiMdsApplication</u></a>	<a href="#"><u>getDoiApp()</u></a> 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`, `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](#)

(continued from last page)

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)
```

(continued from last page)

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	<a href="#">GET_Doi</a> Function of this resource #GET_Doi. Value: <b>Get Doi</b>
---------------------	---

Fields inherited from class [fr.cnes.doi.resource.mds.BaseMdsResource](#)

[DOI\\_PARAMETER](#), [LOG](#), [URL\\_PARAMETER](#)

## Constructor Summary

public	<a href="#">DoiResource()</a>
--------	-------------------------------

## Method Summary

void	<a href="#">describeGet</a> (MethodInfo info) Describes the Get Method.
void	<a href="#">doInit()</a> Init by getting the DOI name in the <a href="#">template URL</a> .
org.restlet.representation.Representation	<a href="#">getDoi()</a> 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`, `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

(continued from last page)

## 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 returned. 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.DATAACITE\\_API\\_RESPONSE.DOI\\_NOT\\_FOUND](#)
- [DoiMdsApplication.API\\_MDS.DATAACITE\\_PROBLEM](#)
- [DoiMdsApplication.API\\_MDS.DOI\\_VALIDATION](#)

### describeGet

```
protected final void describeGet(MethodInfo info)
```

(continued from last page)

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

## 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	<a href="#">CREATE_DOI</a> Function of this resource #CREATE_DOI. Value: <b>Create a DOI</b>
public static final	<a href="#">LIST_ALL_DOIS</a> Function of this resource #LIST_ALL_DOIS. Value: <b>List all DOIs</b>

Fields inherited from class [fr.cnes.doi.resource.mds.BaseMdsResource](#)

[DOI\\_PARAMETER](#), [LOG](#), [URL\\_PARAMETER](#)

### Constructor Summary

public	<a href="#">DoisResource</a> ()
--------	---------------------------------

### Method Summary

String	<a href="#">createDoi</a> (org.restlet.data.Form doiForm) Creates a new DOI based on the doi and url parameters The DOI name is built following this syntax: <i>CNES_prefix/project_provided_the_DOI_server/project_suffix</i> .
void	<a href="#">describeGet</a> (MethodInfo info) Describes the GET method.
void	<a href="#">describePost</a> (MethodInfo info) Describes the POST method.
void	<a href="#">doInit</a> () Init.



List	<a href="#">getDois()</a> 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](#), [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

(continued from last page)

## 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.DATAACITE\\_API\\_RESPONSE.PROCESS\\_ERROR](#)
- [DoiMdsApplication.API\\_MDS.DATAACITE\\_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.DATAACITE\\_API\\_RESPONSE.SUCCESS](#)
- [ClientMDS.DATAACITE\\_API\\_RESPONSE.SUCCESS\\_NO\\_CONTENT](#)
- [DoiMdsApplication.API\\_MDS.DATAACITE\\_PROBLEM](#)

### Parameters:

info - Wadl description

## describePost

```
protected final void describePost(MethodInfo info)
```

(continued from last page)

Describes the POST method. The different representations are the followings:

- [ClientMDS.DATAcite\\_API\\_RESPONSE.SUCCESS\\_CREATED](#)
- [DoiMdsApplication.API\\_MDS.LANDING\\_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

## 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	<a href="#">MediaResource</a> ()
--------	----------------------------------

## Method Summary

org.restlet.representation.Representation	<a href="#">createMedia</a> (org.restlet.data.Form mediaForm)
---	---

Creates a media related to an URL for a given DOI.

void	<a href="#">describeGet</a> (MethodInfo info)
------	---

Describes the GET method.

void	<a href="#">describePost</a> (MethodInfo info)
------	--

Describes the POST method.

void	<a href="#">doInit</a> ()
------	---------------------------

Init by getting the media name.

org.restlet.representation.Representation	<a href="#">getMedias</a> ()
---	------------------------------

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`, `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

(continued from last page)

## 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:**

(continued from last page)

[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	<a href="#">DELETE_METADATA</a> Function of this resource #DELETE_METADATA. Value: <b>Delete a Metadata</b>
public static final	<a href="#">GET_METADATA</a> Function of this resource #GET_METADATA. Value: <b>Get a Metadata</b>

Fields inherited from class [fr.cnes.doi.resource.mds.BaseMdsResource](#)

[DOI\\_PARAMETER](#), [LOG](#), [URL\\_PARAMETER](#)

### Constructor Summary

public	<a href="#">MetadataResource()</a>
--------	------------------------------------

### Method Summary

org.restlet.representation.Representation	<a href="#">deleteMetadata()</a> Deletes a representation for a given DOI.
void	<a href="#">describeDelete</a> (MethodInfo info) Describes the DELETE method.
void	<a href="#">describeGet</a> (MethodInfo info) Describes the GET method.
void	<a href="#">doInit()</a> Init by getting a DOI.

org.restlet.representation.Representation	<a href="#">getMetadata()</a> Returns the metadata for a given DOI.
<a href="#">Resource</a>	<a href="#">getMetadataAsJson()</a> 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](#), [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:**

(continued from last page)

[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

---

(continued from last page)

## 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

# 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	<a href="#">CREATE_METADATA</a> Function of this resource #CREATE_METADATA. Value: <b>Create Metadata</b>
---------------------	---

Fields inherited from class [fr.cnes.doi.resource.mds.BaseMdsResource](#)

[DOI\\_PARAMETER](#), [LOG](#), [URL\\_PARAMETER](#)

## Constructor Summary

public	<a href="#">MetadatasResource</a> ( )
--------	---------------------------------------

## Method Summary

String	<a href="#">createMetadata</a> (org.restlet.representation.Representation entity) Create Metadata for a given DOI.
void	<a href="#">describePost</a> (MethodInfo info) Describes the POST method.
void	<a href="#">doInit</a> ( ) 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`, `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

(continued from last page)

## CREATE\_METADATA

```
public static final java.lang.String CREATE_METADATA
```

Function of this resource #CREATE\_METADATA.  
Constant value: **Create Metadata**

## Constructors

### MetadataResource

```
public MetadataResource()
```

## 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)
```



(continued from last page)

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 AlowerIP

```

java.lang.Object
|
+-org.restlet.Restlet
|
|   +-org.restlet.routing.Filter
|   |
|   |   +-fr.cnes.doi.security.AllowerIP

```

### All Implemented Interfaces:

org.restlet.Uniform

```

public class AlowerIP
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	<a href="#">LOCALHOST_IPV4</a> Localhost in IPv4. Value: <b>127.0.0.1</b>
public static final	<a href="#">LOCALHOST_IPV6</a> Localhost in IPv6. Value: <b>0:0:0:0:0:0:0:1</b>

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

CONTINUE, SKIP, STOP

## Constructor Summary

public	<a href="#">AlowerIP</a> (org.restlet.Context context, boolean isEnabledIP) Constructor based on the context and a parameter to make enabled/disabled the service
--------	--

## Method Summary

int	<a href="#">beforeHandle</a> (org.restlet.Request request, org.restlet.Response response) Before Handler.
Set	<a href="#">getAllowedAddresses</a> () Returns the allowed addresses.
boolean	<a href="#">isEnabled</a> () 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)
```

(continued from last page)

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	<a href="#">LoginBasedVerifier()</a> Constructor.
--------	--

## Method Summary

int	<a href="#">verify</a> (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

(continued from last page)

## 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

# 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	<a href="#">GROUP_ADMIN</a> Group name for the administrators #GROUP_ADMIN. Value: <b>Administrator</b>
public static final	<a href="#">GROUP_USERS</a> Group name for the users #GROUP_USERS. Value: <b>Users</b>
public static final	<a href="#">ROLE_ADMIN</a> Role name for the administrators #ROLE_ADMIN. Value: <b>admin</b>

## Method Summary

boolean	<a href="#">createRealmFor</a> (org.restlet.Application app) Init Realm for an application.
static <a href="#">RoleAuthorizer</a>	<a href="#">getInstance</a> () Access to unique INSTANCE of role authorizer
void	<a href="#">update</a> (Observable obs, Object obj) Adds/removes the <i>users</i> 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



(continued from last page)

## 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	<a href="#">TokenBasedVerifier</a> ( <a href="#">AbstractTokenDBHelper</a> tokenDB) Constructor.
--------	---

## Method Summary

int	<a href="#">verify</a> (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	<a href="#">TokenSecurity.TimeUnit</a> TokenSecurity.TimeUnit
-------	--

### Field Summary

public static final	<a href="#">DATE_FORMAT</a> Default date format for the token #DATE_FORMAT Value: <b>EEE MMM dd HH:mm:ss z yyyy</b>
public static final	<a href="#">DEFAULT_TOKEN_KEY</a> Default token key. Value: <b>Yn2kjibddFAWtnPJ2AF1L8WXmohJMCvigQggaEypa5E=</b>
public static final	<a href="#">PROJECT_ID</a> Project ID name in token. Value: <b>projectID</b>
public static final	<a href="#">PROJECT_NAME</a> Project name in token. Value: <b>projectName</b>

### Method Summary

static String	<a href="#">createKeySignatureHS256()</a> Creates a key for token signature encoded with the algorithm HS256
String	<a href="#">generate</a> (String userID, int projectID, <a href="#">TokenSecurity.TimeUnit</a> timeUnit, int amount) Creates a token.
String	<a href="#">generate</a> (String userID, <a href="#">TokenSecurity.TimeUnit</a> timeUnit, int amount) Creates a token.
static <a href="#">TokenSecurity</a>	<a href="#">getInstance()</a> Access to unique INSTANCE of Settings
<a href="#">AbstractTokenDBHelper</a>	<a href="#">getTokenDB()</a> Returns the token DB.

io.jsonwebtoken.Jws	<a href="#">getTokenInformation</a> (String jwtToken) Returns the token information.
String	<a href="#">getTokenKey</a> () Returns the token key computed by the algorithm HS256.
boolean	<a href="#">isExpired</a> (String token) Returns true when the token is expired otherwise false.
void	<a href="#">setTokenKey</a> (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: **Yn2kjibddFAWtnPJ2AF1L8WXmohJMCvigQggaEypa5E=**

### 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	<a href="#">DAY</a> Day.
public static final	<a href="#">HOUR</a> Hour.
public static final	<a href="#">YEAR</a> Year.

### Method Summary

int	<a href="#">getTimeUnit()</a> Returns the time unit.
static <a href="#">TokenSecurity.TimeUnit</a> <a href="#">t</a>	<a href="#">getTimeUnitFrom(int value)</a> Returns the time unit from a value.
static <a href="#">TokenSecurity.TimeUnit</a> <a href="#">t</a>	<a href="#">valueOf(String name)</a>
static <a href="#">TokenSecurity.TimeUnit</a> <a href="#">t[]</a>	<a href="#">values()</a>

#### 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

### HOURL

```
public static final fr.cnes.doi.security.TokenSecurity.TimeUnit HOURL
```

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:**

(continued from last page)

time unit

## fr.cnes.doi.security Class UtlsCryptography

java.lang.Object

└─fr.cnes.doi.security.UtlsCryptography

public final class **UtlsCryptography**  
extends Object

Utility class to encrypt/decrypt

**Author:**

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

### Field Summary

public static final	<a href="#">CIPHER_ALGORITHM</a> Name of the transformation. Value: <b>AES</b>
public static final	<a href="#">DEFAULT_SECRET_KEY</a> Default key to encrypt/decrypt. Value: <b>16BYTESSECRETKEY</b>
public static final	<a href="#">KEY_ALGORITHM</a> Name of the secret-key algorithm to be associated with the given key material. Value: <b>AES</b>

### Method Summary

static String	<a href="#">decrypt</a> (String encryptedInput) Decrypts the string with the DEFAULT_SECRET_KEY.
static String	<a href="#">decrypt</a> (String encryptedInput, String secretKey) Decrypts the string with a custom secret key.
static String	<a href="#">encrypt</a> (String str) Encrypts the string with the DEFAULT_SECRET_KEY.
static String	<a href="#">encrypt</a> (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**

(continued from last page)

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.

---

(continued from last page)

## **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

## 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	<a href="#">CITATION_URI</a> URI of the Citation application. Value: <b>/citation</b>
public static final	<a href="#">DEFAULT_MAX_CONNECTIONS_PER_HOST</a> Default number for RESTLET_MAX_CONNECTIONS_PER_HOST. Value: <b>-1</b>
public static final	<a href="#">DEFAULT_MAX_TOTAL_CONNECTIONS</a> Default number for RESTLET_MAX_TOTAL_CONNECTIONS. Value: <b>-1</b>
public static final	<a href="#">DEFAULT_SSL_CTX</a> Default value for <a href="#">SSL_CTX_FACTORY</a> parameter : #DEFAULT_SSL_CTX. Value: <b>org.restlet.engine.ssl.DefaultSslContextFactory</b>
public static final	<a href="#">JKS_DIRECTORY</a> Directory #JKS_DIRECTORY. Value: <b>jks</b>
public static final	<a href="#">JKS_FILE</a> JKS file, which is stored in the JAR. Value: <b>doiServerKey.jks</b>
public static final	<a href="#">KEY_PWD</a> Key password parameter #KEY_PWD. Value: <b>keyPassword</b>
public static final	<a href="#">KEY_STORE_PATH</a> Key store parameter #KEY_STORE_PATH. Value: <b>keyStorePath</b>



public static final	<a href="#">KEY_STORE_PWD</a> Key store password parameter #KEY_STORE_PWD. Value: <b>keyStorePassword</b>
public static final	<a href="#">KEY_STORE_TYPE</a> Key store type parameter #KEY_STORE_TYPE. Value: <b>keyStoreType</b>
public static final	<a href="#">MDS_URI</a> URI of the Meta Data Store application. Value: <b>/mds</b>
public static final	<a href="#">RESTLET_MAX_CONNECTIONS_PER_HOST</a> Number connections per host. Value: <b>maxConnectionsPerHost</b>
public static final	<a href="#">RESTLET_MAX_TOTAL_CONNECTIONS</a> Number total connections. Value: <b>maxTotalConnections</b>
public static final	<a href="#">SSL_CTX_FACTORY</a> SslContextFactory parameter #SSL_CTX_FACTORY. Value: <b>sslContextFactory</b>
public static final	<a href="#">STATUS_URI</a> URI of the Datacite status. Value: <b>/status</b>
public static final	<a href="#">TRUST_STORE_PATH</a> Trust store path parameter #TRUST_STORE_PATH. Value: <b>trustStorePath</b>
public static final	<a href="#">TRUST_STORE_PWD</a> Trust store password parameter #TRUST_STORE_PATH. Value: <b>trustStorePassword</b>
public static final	<a href="#">TRUST_STORE_TYPE</a> Trust store type parameter #TRUST_STORE_PATH. Value: <b>trustStoreType</b>

## Constructor Summary

public	<a href="#">DoiServer</a> ( <a href="#">DoiSettings</a> settings) Creates an instance of the server with settings coming from the config.properties
--------	--

## Method Summary

void	<a href="#">start</a> ()
void	<a href="#">stop</a> ()

**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
```

SslContextFactory 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**

(continued from last page)

---

## 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
```

---

(continued from last page)

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

#### Throws:

[fr.cnes.doi.exception.ClientMdsException](#) - It happens when the server cannot access to Datacite account

## Methods

### start

```
public void start()  
    throws Exception
```

(continued from last page)

---

## **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	<a href="#">BITS_16</a> Length of the secret key #BITS_16 Value: <b>16</b>
---------------------	--

## Method Summary

static void	<a href="#">main</a> (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 [Meta Data Store application](#).

## 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	<a href="#">CnesStatusService()</a> Creates a specific error page.
--------	---

## Method Summary

org.restlet.representation.Representation	<a href="#">getRepresentation()</a> (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	<a href="#">DoiMonitoring</a> ( )
--------	-----------------------------------

### Method Summary

void	<a href="#">addMeasurement</a> (org.restlet.data.Method name, String path, float duration) Add Measurement.
float	<a href="#">getCurrentAverage</a> (org.restlet.data.Method name, String path) Returns the average speed of the measurement.
String	<a href="#">getDescription</a> (org.restlet.data.Method name, String path) Returns the description.
boolean	<a href="#">isRegistered</a> (org.restlet.data.Method name, String path) Checks if the features is registered.
void	<a href="#">register</a> (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

(continued from last page)

---

## 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)
```

---

(continued from last page)

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	<a href="#">DoiMonitoringRecord</a> (String description, float average, int nbAccess) Constructor.
--------	---

### Method Summary

float	<a href="#">getAverage</a> () Returns the average speed of the request.
String	<a href="#">getDescription</a> () Returns the service description.
int	<a href="#">getNbAccess</a> () Returns the number of access.
void	<a href="#">setAverage</a> (float average) Sets the average speed of the request.
void	<a href="#">setDescription</a> (String description) Sets the service description.
void	<a href="#">setNbAccess</a> (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

(continued from last page)

## 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:

(continued from last page)

the nbAccess

---

**setNbAccess**

```
public void setNbAccess(int nbAccess)
```

Sets the number of access.

**Parameters:**

nbAccess - the nbAccess to set

## 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	<a href="#">DOIUsersUpdate()</a>
--------	----------------------------------

## Method Summary

void	<a href="#">run()</a>
------	-----------------------

### 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	<a href="#">LandingPageMonitoring</a> ( <a href="#">ClientMDS</a> client)
--------	---

## Method Summary

void	<a href="#">run</a> () 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(ClientMDS client)
```

## 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	<a href="#">UpdateTokenDataBase()</a>
--------	---------------------------------------

## Method Summary

void	<a href="#">run()</a>
------	-----------------------

### 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

### 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	<a href="#">ADMIN_IP_ALLOWER</a> Allowed IPs for the administration application. Value: <b>Starter.admin.IP.allower</b>
public static final	<a href="#">APP_NAME</a> Application's name. Value: <b>Starter.APP_NAME</b>
public static final	<a href="#">ATTRIBUTION</a> Attributes name in LDAP for fullname. Value: <b>Starter.attribution</b>
public static final	<a href="#">CONTEXT_MODE</a> Context (DEV, POST_DEV, PRE_PROD, PROD) of the use. Value: <b>Starter.CONTEXT_MODE</b>
public static final	<a href="#">COPYRIGHT</a> Application's copyright. Value: <b>Starter.COPYRIGHT</b>
public static final	<a href="#">DATACITE_SCHEMA</a> DataCite schema. Value: <b>Starter.dataciteSchema</b>
public static final	<a href="#">DB_UPDATE_JOB_PERIOD</a> Update Database job period Value: <b>Starter.updateDatabaseJob.period</b>
public static final	<a href="#">ENCRYPTED_FIELDS</a> True when login/password are encoded otherwise false. Value: <b>Starter.encrypted_fields</b>
public static final	<a href="#">INIST_DOI</a> DOI prefix, which is given by INIST. Value: <b>Starter.Inist.doi</b>

public static final	<a href="#">INIST_LOGIN</a> INIST login to use DATACITE's web services. Value: <b>Starter.Inist.login</b>
public static final	<a href="#">INIST_PWD</a> INIST password to use DATACITE's web services. Value: <b>Starter.Inist.pwd</b>
public static final	<a href="#">JETTY_ACCEPT_QUEUE_SIZE</a> Connector accept queue size; also known as accept backlog. Value: <b>Starter.ACCEPT_QUEUE_SIZE</b>
public static final	<a href="#">JETTY_ACCEPTOR_THREADS</a> Connector acceptor thread count; when -1, Jetty will default to <code>Runtime.availableProcessors() / 2</code> , with a minimum of 1. Value: <b>Starter.ACCEPTOR_THREADS</b>
public static final	<a href="#">JETTY_GRACEFUL_SHUTDOWN</a> Connector stop timeout in milliseconds; the maximum time allowed for the service to shutdown Value: <b>Starter.GRACEFUL_SHUTDOWN</b>
public static final	<a href="#">JETTY_IO_MAX_IDLE_TIME_MS</a> Connector idle timeout in milliseconds; see <code>Socket.setSoTimeout(int)</code> ; 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: <b>Starter.IO_MAX_IDLE_TIME_MS</b>
public static final	<a href="#">JETTY_LOW_RESOURCES_MAX_CONNECTIONS</a> Low resource monitor max connections; when 0, the check is disabled. Value: <b>Starter.LOW_RESOURCES_MAX_CONNECTIONS</b>
public static final	<a href="#">JETTY_LOW_RESOURCES_MAX_IDLE_TIME_MS</a> Time in ms that connections will persist if listener is low on resources. Value: <b>Starter.LOW_RESOURCES_MAX_IDLE_TIME_MS</b>
public static final	<a href="#">JETTY_LOW_RESOURCES_MAX_MEMORY</a> Low resource monitor max memory in bytes; when 0, the check disabled; memory used is calculated as <code>(totalMemory-freeMemory)</code> . Value: <b>Starter.LOW_RESOURCES_MAX_MEMORY</b>
public static final	<a href="#">JETTY_LOW_RESOURCES_PERIOD</a> Low resource monitor period in milliseconds; when 0, low resource monitoring is disabled. Value: <b>Starter.LOW_RESOURCES_PERIOD</b>
public static final	<a href="#">JETTY_LOW_RESOURCES_THREADS</a> Low resource monitor, whether to check if we're low on threads. Value: <b>Starter.LOW_RESOURCES_THREADS</b>
public static final	<a href="#">JETTY_MAX_THREADS</a> Jetty : Thread pool max threads. Value: <b>Starter.MAX_THREADS</b>
public static final	<a href="#">JETTY_MIN_THREADS</a> Jetty : Thread pool minimum threads. Value: <b>Starter.MIN_THREADS</b>

public static final	<a href="#">JETTY_REQUEST_BUFFER_SIZE</a> HTTP header cache size in bytes. Value: <b>Starter.REQUEST_BUFFER_SIZE</b>
public static final	<a href="#">JETTY_REQUEST_HEADER_SIZE</a> 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: <b>Starter.REQUEST_HEADER_SIZE</b>
public static final	<a href="#">JETTY_RESPONSE_BUFFER_SIZE</a> 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: <b>Starter.RESPONSE_BUFFER_SIZE</b>
public static final	<a href="#">JETTY_RESPONSE_HEADER_SIZE</a> HTTP response header size in bytes; larger headers will allow for more and/or larger cookies and longer HTTP headers (e.g. Value: <b>Starter.RESPONSE_HEADER_SIZE</b>
public static final	<a href="#">JETTY_SELECTOR_THREADS</a> Connector selector thread count; when -1, Jetty will default to Runtime.availableProcessors(). Value: <b>Starter.SELECTOR_THREADS</b>
public static final	<a href="#">JETTY_SO_LINGER_TIME</a> Connector TCP/IP SO linger time in milliseconds; when -1 is disabled; see Socket.setSoLinger(boolean, int). Value: <b>Starter.SO_LINGER_TIME</b>
public static final	<a href="#">JETTY_THREAD_MAX_IDLE_TIME_MS</a> Jetty : Thread pool idle timeout in milliseconds; threads that are idle for longer than this period may be stopped. Value: <b>Starter.THREAD_MAX_IDLE_TIME_MS</b>
public static final	<a href="#">JETTY_THREAD_STOP_TIME_MS</a> Thread pool stop timeout in milliseconds; the maximum time allowed for the service to shutdown. Value: <b>Starter.THREAD_MAX_STOP_TIME_MS</b>
public static final	<a href="#">JETTY_THREADS_PRIORITY</a> Jetty : Thread pool threads priority. Value: <b>Starter.THREADS_PRIORITY</b>
public static final	<a href="#">LOG_FORMAT</a> LOG format. Value: <b>Starter.Server.Log.format</b>
public static final	<a href="#">LOG_IP_ADDRESS</a> Log for IP client forwarded to proxy. Value: <b>ipAddress</b>
public static final	<a href="#">NAME</a> Name of the configuration file. Value: <b>Starter.NAME</b>

public static final	<a href="#">PLUGIN_AUTHENTICATION</a> Plugin to load the authentication system. Value: <b>Starter.Plugin.Authentication</b>
public static final	<a href="#">PLUGIN_PROJECT_SUFFIX</a> Plugin to load the project suffix database. Value: <b>Starter.Plugin.ProjectSuffix</b>
public static final	<a href="#">PLUGIN_TOKEN</a> Plugin to load the token database. Value: <b>Starter.Plugin.Token</b>
public static final	<a href="#">PLUGIN_USER_GROUP_MGT</a> Plugin to load the list of users and to fill group with users Value: <b>Starter.Plugin.UserGroupMgt</b>
public static final	<a href="#">PROXIFIED_IP</a> Get IP client forwarded to proxy. Value: <b>X-Forwarded-For</b>
public static final	<a href="#">RESTLET_MAX_CONNECTIONS_PER_HOST</a> Tunning Connection for Restlet Value: <b>Starter.maxConnectionsPerHost</b>
public static final	<a href="#">RESTLET_MAX_TOTAL_CONNECTIONS</a> Tunning connection for Restlet. Value: <b>Starter.maxTotalConnections</b>
public static final	<a href="#">SERVER_CONTACT_ADMIN</a> Email of the administrator. Value: <b>Starter.Server.contactAdmin</b>
public static final	<a href="#">SERVER_HTTP_PORT</a> HTTP port number. Value: <b>Starter.Server.HTTP.Port</b>
public static final	<a href="#">SERVER_HTTPS_KEYSTORE_PASSWD</a> HTTPS keystore password. Value: <b>Starter.Server.HTTPS.keystorePassword</b>
public static final	<a href="#">SERVER_HTTPS_KEYSTORE_PATH</a> HTTPS keystore path. Value: <b>Starter.Server.HTTPS.KeystorePath</b>
public static final	<a href="#">SERVER_HTTPS_PORT</a> HTTPS port number. Value: <b>Starter.Server.HTTPS.Port</b>
public static final	<a href="#">SERVER_HTTPS_SECRET_KEY</a> HTTPS password for this application. Value: <b>Starter.Server.HTTPS.SecretKey</b>
public static final	<a href="#">SERVER_HTTPS_TRUST_STORE_PASSWD</a> Trust store password. Value: <b>Starter.Server.HTTPS.TrustStorePassword</b>

public static final	<a href="#">SERVER_HTTPS_TRUST_STORE_PATH</a> Trust store path. Value: <b>Starter.Server.HTTPS.TrustStorePath</b>
public static final	<a href="#">SERVER_NONPROXY_HOSTS</a> Set of hostname on which the authentication to the proxy is disabled. Value: <b>Starter.NoProxy.hosts</b>
public static final	<a href="#">SERVER_PROXY_HOST</a> Proxy host name. Value: <b>Starter.Proxy.host</b>
public static final	<a href="#">SERVER_PROXY_JAAS_CONTEXT</a> TODO. Value: <b>Starter.Proxy.Jass.Context</b>
public static final	<a href="#">SERVER_PROXY_JAAS_FILE</a> TODO. Value: <b>Starter.Proxy.Jass.File</b>
public static final	<a href="#">SERVER_PROXY_JAAS_SPN</a> TODO. Value: <b>Starter.Proxy.Jass.Spn</b>
public static final	<a href="#">SERVER_PROXY_LOGIN</a> Proxy login. Value: <b>Starter.Proxy.login</b>
public static final	<a href="#">SERVER_PROXY_PORT</a> Proxy port number. Value: <b>Starter.Proxy.port</b>
public static final	<a href="#">SERVER_PROXY_PWD</a> Proxy password. Value: <b>Starter.Proxy.pwd</b>
public static final	<a href="#">SERVER_PROXY_TYPE</a> Type of proxy. Value: <b>Starter.Proxy.type</b>
public static final	<a href="#">SMTP_AUTH_PWD</a> SMTP password. Value: <b>Starter.mail.send.secret</b>
public static final	<a href="#">SMTP_AUTH_USER</a> SMTP login. Value: <b>Starter.mail.send.identifier</b>
public static final	<a href="#">SMTP_PROTOCOL</a> Protocol name. Value: <b>Starter.mail.send.protocol</b>
public static final	<a href="#">SMTP_STARTTLS_ENABLE</a> TLS. Value: <b>Starter.mail.send.tls</b>



public static final	<a href="#">SMTP_URL</a> SMTP URL. Value: <b>Starter.mail.send.server</b>
public static final	<a href="#">THRESHOLD_SPEED_PERCENT</a> Level for which an alert must be send. Value: <b>Starter.Monitoring.Threshold_speed</b>
public static final	<a href="#">TOKEN_EXPIRATION_DELAY</a> Set token expiration delay during creation Value: <b>Starter.Token.Delay</b>
public static final	<a href="#">TOKEN_EXPIRATION_UNIT</a> Set token expiration unit during creation Value: <b>Starter.Token.Unit</b>
public static final	<a href="#">TOKEN_KEY</a> key for token signature encoded with the algorithm HS256 in base64 Value: <b>Starter.Token.key</b>
public static final	<a href="#">USE_FORWARDED_FOR_HEADER</a> Option to configure IP client. Value: <b>useForwardedForHeader</b>
public static final	<a href="#">VERSION</a> Application's version. Value: <b>Starter.VERSION</b>

#### 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**

---

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---

## 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**

---

(continued from last page)

---

## 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
```

(continued from last page)

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**

---

(continued from last page)

---

## 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**

---



(continued from last page)

---

## 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**

---

## USE\_FORWARDED\_FOR\_HEADER

```
public static final java.lang.String USE_FORWARDED_FOR_HEADER
```

Option to configure IP client.

Constant value: **useForwardedForHeader**

---

## PROXIFIED\_IP

```
public static final java.lang.String PROXIFIED_IP
```

Get IP client forwarded to proxy.

Constant value: **X-Forwarded-For**

---

## LOG\_IP\_ADDRESS

```
public static final java.lang.String LOG_IP_ADDRESS
```

---

(continued from last page)

Log for IP client forwarded to proxy.  
Constant value: **ipAddress**

## 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	<a href="#"><u>CONFIG_PROPERTIES</u></a> Configuration files in JAR. Value: <b>config.properties</b>
---------------------	--

### Method Summary

void	<a href="#"><u>displayConfigFile()</u></a> Displays the configuration file.
boolean	<a href="#"><u>getBoolean(String key)</u></a> Returns the value of the key as a boolean.
static <a href="#"><u>DoiSettings</u></a>	<a href="#"><u>getInstance()</u></a> Access to unique INSTANCE of Settings
int	<a href="#"><u>getInt(String key)</u></a> Returns the value of the key as an integer.
int	<a href="#"><u>getInt(String key, String defaultValue)</u></a> Returns the value of the key as an integer.
Long	<a href="#"><u>getLong(String key)</u></a> Returns the value of the key as a long.
Long	<a href="#"><u>getLong(String key, String defaultValue)</u></a> Returns the value of the key as a long.
String	<a href="#"><u>getPathApp()</u></a> Returns the path of the application on the file system.
String	<a href="#"><u>getSecret(String key)</u></a> Returns the decoded value of the key.
String	<a href="#"><u>getSecretKey()</u></a> Returns the secret key.
String	<a href="#"><u>getSecretValue(String value)</u></a> Returns the decoded value of the value.

String	<a href="#"><code>getString</code></a> (String key) Returns the value of the key or null if no mapping for the key.
String	<a href="#"><code>getString</code></a> (String key, String defaultValue) Returns the value of the key as string.
boolean	<a href="#"><code>hasValue</code></a> (String key) Tests if the key has a value.
void	<a href="#"><code>setPropertyFile</code></a> (InputStream inputStream) Sets a custom properties file.
void	<a href="#"><code>setPropertyFile</code></a> (String path) Sets a custom properties file.
void	<a href="#"><code>setSecretKey</code></a> (String secretKey) Sets the secret key.
void	<a href="#"><code>validConfigurationFile</code></a> () 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)
```

(continued from last page)

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)
```

(continued from last page)

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)
```

(continued from last page)

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:**

(continued from last page)

path - Path to the properties file

**Throws:**

`IOException` - - if an error occurred when reading from the input stream.

---

## setPropertyFile

```
public void setPropertyFile(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	<a href="#"><code>getAuthPwd()</code></a> Returns the decrypted password.
String	<a href="#"><code>getAuthUser()</code></a> Returns the decrypted login.
String	<a href="#"><code>getContactAdmin()</code></a> Returns the administrator's email.
static <a href="#"><code>EmailSettings</code></a>	<a href="#"><code>getInstance()</code></a> Access to unique INSTANCE of Settings
String	<a href="#"><code>getSmtpProtocol()</code></a> Returns the protocol.
String	<a href="#"><code>getSmtpURL()</code></a> Returns the protocol URL.
String	<a href="#"><code>getTlsEnable()</code></a> Returns True when TLS is enable otherwise False.
void	<a href="#"><code>init()</code></a> Init singleton.
boolean	<a href="#"><code>isDebug()</code></a> Returns the debug.
boolean	<a href="#"><code>sendMessage(String subject, String msg)</code></a> Sends a message by email.
boolean	<a href="#"><code>sendMessage(String subject, String msg, String receiverEmail)</code></a> Sends a message by email to receiver.
void	<a href="#"><code>setDebug(boolean isEnabled)</code></a> 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.

---

(continued from last page)

**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()
```

---

(continued from last page)

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	<a href="#">JettySettings</a> (org.restlet.Server server, <a href="#">DoiSettings</a> settings) Constructs settings for Jetty.
--------	---

### Method Summary

void	<a href="#">addParamsToServerContext</a> () addParamsToServerContext.
int	<a href="#">getConnectorAcceptors</a> () Connector acceptor thread count.
int	<a href="#">getConnectorAcceptQueueSize</a> () Connector accept queue size.
int	<a href="#">getConnectorIdleTimeout</a> () Connector idle timeout in milliseconds.
int	<a href="#">getConnectorSelectors</a> () Connector selector thread count.
int	<a href="#">getConnectorSoLingerTime</a> () Connector TCP/IP SO linger time in milliseconds.
int	<a href="#">getConnectorStopTimeout</a> () Connector stop timeout in milliseconds.
int	<a href="#">getHttpHeaderCacheSize</a> () HTTP header cache size in bytes.

int	<a href="#"><code>getHttpOutputBufferSize()</code></a> HTTP output buffer size in bytes.
int	<a href="#"><code>getHttpRequestHeaderSize()</code></a> HTTP request header size in bytes.
int	<a href="#"><code>getHttpResponseHeaderSize()</code></a> HTTP response header size in bytes.
int	<a href="#"><code>getLowResourceMonitorIdleTimeout()</code></a> Low resource monitor idle timeout in milliseconds.
int	<a href="#"><code>getLowResourceMonitorMaxConnections()</code></a> Low resource monitor max connections.
long	<a href="#"><code>getLowResourceMonitorMaxMemory()</code></a> Low resource monitor max memory in bytes.
int	<a href="#"><code>getLowResourceMonitorPeriod()</code></a> Low resource monitor period in milliseconds.
long	<a href="#"><code>getLowResourceMonitorStopTimeout()</code></a> Low resource monitor stop timeout in milliseconds.
boolean	<a href="#"><code>getLowResourceMonitorThreads()</code></a> Low resource monitor, whether to check if we're low on threads.
int	<a href="#"><code>getThreadPoolIdleTimeout()</code></a> Thread pool idle timeout in milliseconds.
int	<a href="#"><code>getThreadPoolMaxThreads()</code></a> Thread pool maximum threads.
int	<a href="#"><code>getThreadPoolMinThreads()</code></a> Thread pool minimum threads.
long	<a href="#"><code>getThreadPoolStopTimeout()</code></a> Thread pool stop timeout in milliseconds.
int	<a href="#"><code>getThreadPoolThreadsPriority()</code></a> 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.

(continued from last page)

---

## 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.

---



(continued from last page)

---

## 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.

---

(continued from last page)

---

## 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.

---

(continued from last page)

## **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.

## 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	<a href="#"><code>configureProxy()</code></a> Configure the proxy.
static <a href="#"><code>ProxySettings</code></a>	<a href="#"><code>getInstance()</code></a> Access to unique INSTANCE of Settings
String	<a href="#"><code>getNonProxyHosts()</code></a> Gets the nonproxyHosts value
String	<a href="#"><code>getProxyHost()</code></a> Gets the proxyHost value
String	<a href="#"><code>getProxyPassword()</code></a> Gets the proxyPassword value
String	<a href="#"><code>getProxyPort()</code></a> Gets the proxyPort value
String	<a href="#"><code>getProxyType()</code></a> Returns get type of proxy
String	<a href="#"><code>getProxyUser()</code></a> Gets the proxyUser value
void	<a href="#"><code>init()</code></a> Init the proxy setting
boolean	<a href="#"><code>isAuthenticate()</code></a> Returns true when the proxy needs an authentication otherwise false.
boolean	<a href="#"><code>isWithProxy()</code></a> 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

(continued from last page)

**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	<a href="#">DOIProperties()</a>
--------	---------------------------------

## Method Summary

String	<a href="#">getProperty</a> (String string)
--------	---

String	<a href="#">getProperty</a> (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 <a href="#">UniqueProjectName</a>	<a href="#">getInstance()</a> Access to unique INSTANCE of Settings
List	<a href="#">getProjects()</a> Returns the projects from the database.
List	<a href="#">getProjectsFromUser</a> (String userName) Returns the projects associated to an user from the database.
int	<a href="#">getShortName</a> (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:**

(continued from last page)

[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	<a href="#">APP_LOGGER_NAME</a> Name of the logger to measure performances #APP_LOGGER_NAME. Value: <b>fr.cnes.doi.logging.app</b>
public static final	<a href="#">EMPTY_OBJECT_ARRAY</a> An empty immutable Object array.
public static final	<a href="#">HTTP_LOGGER_NAME</a> Name of the logger for http requests and answers #HTTP_LOGGER_NAME. Value: <b>fr.cnes.doi.logging.api</b>
public static final	<a href="#">SECURITY_LOGGER_NAME</a> Name of the logger to measure performances #SECURITY_LOGGER_NAME. Value: <b>fr.cnes.doi.logging.security</b>
public static final	<a href="#">SHELL_LOGGER_NAME</a> Name of the logger in console without date. Value: <b>fr.cnes.doi.logging.shell</b>

### Method Summary

static Set	<a href="#">getKeysByValue</a> (Map map, Object value) Returns the keys related to a value within a map.
static int	<a href="#">getLength</a> (Object array) Returns the length of the specified array.
static boolean	<a href="#">isEmpty</a> (CharSequence charSeq) Checks whether the char sequence is empty.
static boolean	<a href="#">isEmpty</a> (Object[] array) Checks if an array of Objects is empty or null.
static boolean	<a href="#">isNotEmpty</a> (CharSequence charSeq) Checks whether the char sequence is not empty.
static Object[]	<a href="#">nullToEmpty</a> (Object[] array) Defensive programming technique to change a null reference to an empty one.

static Object[]	<a href="#"><code>nullToEmpty</code></a> (Object[] array, Class type) Defensive programming technique to change a null reference to an empty one.
static String	<a href="#"><code>transformPasswordToStars</code></a> (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:**

(continued from last page)

charSeq - the char sequence

**Returns:**

True when the char sequence is empty otherwise False

---

## isEmpty

```
public static boolean isEmpty(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)
```

(continued from last page)

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



---

**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	<a href="#">COMPLETE</a>
public static final	<a href="#">NONE</a>
public static final	<a href="#">PARTIAL</a>

### Method Summary

static <a href="#">CoverageAnnotation</a>	<a href="#">valueOf</a> (String name)
static <a href="#">CoverageAnnotation[]</a>	<a href="#">values</a> ()

#### 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

(continued from last page)

---

## 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	<a href="#">DOI_ARCHI_010</a> Value: <b>DOI_ARCHI_010</b>
public static final	<a href="#">DOI_ARCHI_010_NAME</a> Value: <b>Protocole HTTP et HTTPS pour les API</b>
public static final	<a href="#">DOI_ARCHI_020</a> Value: <b>DOI_ARCHI_020</b>
public static final	<a href="#">DOI_ARCHI_020_NAME</a> Value: <b>Logs</b>
public static final	<a href="#">DOI_ARCHI_030</a> Value: <b>DOI_ARCHI_030</b>
public static final	<a href="#">DOI_ARCHI_030_NAME</a> Value: <b>Plugins</b>
public static final	<a href="#">DOI_ARCHI_040</a> Value: <b>DOI_ARCHI_040</b>
public static final	<a href="#">DOI_ARCHI_040_NAME</a> Value: <b>Chargement des plugins</b>
public static final	<a href="#">DOI_AUTH_010</a> Value: <b>DOI_AUTH_010</b>
public static final	<a href="#">DOI_AUTH_010_NAME</a> Value: <b>Authentification par login/mot de passe</b>
public static final	<a href="#">DOI_AUTH_020</a> Value: <b>DOI_AUTH_020</b>
public static final	<a href="#">DOI_AUTH_020_NAME</a> Value: <b>Authentification par token</b>

public static final	<a href="#">DOI_AUTH_030</a> Value: <b>DOI_AUTH_030</b>
public static final	<a href="#">DOI_AUTH_030_NAME</a> Value: <b>Authentification IHM</b>
public static final	<a href="#">DOI_AUTO_010</a> Value: <b>DOI_AUTO_010</b>
public static final	<a href="#">DOI_AUTO_010_NAME</a> Value: <b>Association des projets</b>
public static final	<a href="#">DOI_AUTO_020</a> Value: <b>DOI_AUTO_020</b>
public static final	<a href="#">DOI_AUTO_020_NAME</a> Value: <b>sélection du rôle</b>
public static final	<a href="#">DOI_AUTO_030</a> Value: <b>DOI_AUTO_030</b>
public static final	<a href="#">DOI_AUTO_030_NAME</a> Value: <b>Vérification du projet</b>
public static final	<a href="#">DOI_CONFIG_010</a> Value: <b>DOI_CONFIG_010</b>
public static final	<a href="#">DOI_CONFIG_010_NAME</a> Value: <b>Configuration du serveur central</b>
public static final	<a href="#">DOI_CONFIG_020</a> Value: <b>DOI_CONFIG_020</b>
public static final	<a href="#">DOI_CONFIG_020_NAME</a> Value: <b>Evolutivité du schéma de métadonnées</b>
public static final	<a href="#">DOI_DEPL_010</a> Value: <b>DOI_DEPL_010</b>
public static final	<a href="#">DOI_DEPL_010_NAME</a> Value: <b>Déploiement du serveur central</b>
public static final	<a href="#">DOI_DEV_010</a> Value: <b>DOI_DEV_010</b>
public static final	<a href="#">DOI_DEV_010_NAME</a> Value: <b>Développement en Java avec Maven</b>

public static final	<a href="#">DOI_DEV_020</a> Value: <b>DOI_DEV_020</b>
public static final	<a href="#">DOI_DEV_020_NAME</a> Value: <b>OpenSource</b>
public static final	<a href="#">DOI_DISPO_010</a> Value: <b>DOI_DISPO_010</b>
public static final	<a href="#">DOI_DISPO_010_NAME</a> Value: <b>Taux de disponibilité</b>
public static final	<a href="#">DOI_DISPO_020</a> Value: <b>DOI_DISPO_020</b>
public static final	<a href="#">DOI_DISPO_020_NAME</a> Value: <b>Vérification des landing pages</b>
public static final	<a href="#">DOI_DOC_010</a> Value: <b>DOI_DOC_010</b>
public static final	<a href="#">DOI_DOC_010_NAME</a> Value: <b>Documentation des interfaces</b>
public static final	<a href="#">DOI_IHM_010</a> Value: <b>DOI_IHM_010</b>
public static final	<a href="#">DOI_IHM_010_NAME</a> Value: <b>IHM Web</b>
public static final	<a href="#">DOI_IHM_020</a> Value: <b>DOI_IHM_020</b>
public static final	<a href="#">DOI_IHM_020_NAME</a> Value: <b>IHM de création d'un DOI</b>
public static final	<a href="#">DOI_IHM_030</a> Value: <b>DOI_IHM_030</b>
public static final	<a href="#">DOI_IHM_030_NAME</a> Value: <b>IHM de génération de métadonnées</b>
public static final	<a href="#">DOI_IHM_040</a> Value: <b>DOI_IHM_040</b>
public static final	<a href="#">DOI_IHM_040_NAME</a> Value: <b>IHM par service REST</b>

public static final	<a href="#">DOI_IHM_050</a> Value: <b>DOI_IHM_050</b>
public static final	<a href="#">DOI_IHM_050_NAME</a> Value: <b>IHM d'admin</b>
public static final	<a href="#">DOI_INTER_010</a> Value: <b>DOI_INTER_010</b>
public static final	<a href="#">DOI_INTER_010_NAME</a> Value: <b>Interface avec Datacite Metadata Store</b>
public static final	<a href="#">DOI_INTER_020</a> Value: <b>DOI_INTER_020</b>
public static final	<a href="#">DOI_INTER_020_NAME</a> Value: <b>Interface avec CrossCite Citation</b>
public static final	<a href="#">DOI_INTER_030</a> Value: <b>DOI_INTER_030</b>
public static final	<a href="#">DOI_INTER_030_NAME</a> Value: <b>Interface avec la base de données de gestion des suffixes DOI</b>
public static final	<a href="#">DOI_INTER_040</a> Value: <b>DOI_INTER_040</b>
public static final	<a href="#">DOI_INTER_040_NAME</a> Value: <b>Interface avec la base de données de gestion des tokens</b>
public static final	<a href="#">DOI_INTER_050</a> Value: <b>DOI_INTER_050</b>
public static final	<a href="#">DOI_INTER_050_NAME</a> Value: <b>Interface avec la base de données de gestion des utilisateurs</b>
public static final	<a href="#">DOI_INTER_060</a> Value: <b>DOI_INTER_060</b>
public static final	<a href="#">DOI_INTER_060_NAME</a> Value: <b>Vérification du schéma de métadonnées</b>
public static final	<a href="#">DOI_INTER_070</a> Value: <b>DOI_INTER_070</b>
public static final	<a href="#">DOI_INTER_070_NAME</a> Value: <b>Vérification des entrées fournies pour DataCite</b>

public static final	<a href="#">DOI_LIBCLI_010</a> Value: <b>DOI_LIBCLI_010</b>
public static final	<a href="#">DOI_LIBCLI_010_NAME</a> Value: <b>Template de landing page</b>
public static final	<a href="#">DOI_LIBCLI_020</a> Value: <b>DOI_LIBCLI_020</b>
public static final	<a href="#">DOI_LIBCLI_020_NAME</a> Value: <b>Librairies clientes en Java et Python</b>
public static final	<a href="#">DOI_MONIT_010</a> Value: <b>DOI_MONIT_010</b>
public static final	<a href="#">DOI_MONIT_010_NAME</a> Value: <b>Monitoring des temps de réponse</b>
public static final	<a href="#">DOI_MONIT_020</a> Value: <b>DOI_MONIT_020</b>
public static final	<a href="#">DOI_MONIT_020_NAME</a> Value: <b>Monitoring de l'état de DataCite</b>
public static final	<a href="#">DOI_PERF_010</a> Value: <b>DOI_PERF_010</b>
public static final	<a href="#">DOI_PERF_010_NAME</a> Value: <b>Nombre de projets</b>
public static final	<a href="#">DOI_PERF_020</a> Value: <b>DOI_PERF_020</b>
public static final	<a href="#">DOI_PERF_020_NAME</a> Value: <b>Temps de création d'un DOI</b>
public static final	<a href="#">DOI_PERF_030</a> Value: <b>DOI_PERF_030</b>
public static final	<a href="#">DOI_PERF_030_NAME</a> Value: <b>Création de DOI en parallèle</b>
public static final	<a href="#">DOI_SRV_010</a> Value: <b>DOI_SRV_010</b>
public static final	<a href="#">DOI_SRV_010_NAME</a> Value: <b>Création de métadonnées</b>



public static final	<a href="#">DOI_SRV_020</a> Value: <b>DOI_SRV_020</b>
public static final	<a href="#">DOI_SRV_020_NAME</a> Value: <b>Enregistrement d'un DOI</b>
public static final	<a href="#">DOI_SRV_030</a> Value: <b>DOI_SRV_030</b>
public static final	<a href="#">DOI_SRV_030_NAME</a> Value: <b>Mise à jour de l'URL de la landing page d'un DOI</b>
public static final	<a href="#">DOI_SRV_040</a> Value: <b>DOI_SRV_040</b>
public static final	<a href="#">DOI_SRV_040_NAME</a> Value: <b>Mise à jour des métadonnées d'un DOI</b>
public static final	<a href="#">DOI_SRV_050</a> Value: <b>DOI_SRV_050</b>
public static final	<a href="#">DOI_SRV_050_NAME</a> Value: <b>Désactivation d'un DOI</b>
public static final	<a href="#">DOI_SRV_060</a> Value: <b>DOI_SRV_060</b>
public static final	<a href="#">DOI_SRV_060_NAME</a> Value: <b>Récupération des métadonnées</b>
public static final	<a href="#">DOI_SRV_070</a> Value: <b>DOI_SRV_070</b>
public static final	<a href="#">DOI_SRV_070_NAME</a> Value: <b>Récupération de l'URL de la landing page</b>
public static final	<a href="#">DOI_SRV_080</a> Value: <b>DOI_SRV_080</b>
public static final	<a href="#">DOI_SRV_080_NAME</a> Value: <b>Création d'un média</b>
public static final	<a href="#">DOI_SRV_090</a> Value: <b>DOI_SRV_090</b>
public static final	<a href="#">DOI_SRV_090_NAME</a> Value: <b>Récupération des médias</b>

public static final	<a href="#">DOI_SRV_100</a> Value: <b>DOI_SRV_100</b>
public static final	<a href="#">DOI_SRV_100_NAME</a> Value: <b>Listing des styles</b>
public static final	<a href="#">DOI_SRV_110</a> Value: <b>DOI_SRV_110</b>
public static final	<a href="#">DOI_SRV_110_NAME</a> Value: <b>Listing des langues</b>
public static final	<a href="#">DOI_SRV_120</a> Value: <b>DOI_SRV_120</b>
public static final	<a href="#">DOI_SRV_120_NAME</a> Value: <b>Formatage d'une citation</b>
public static final	<a href="#">DOI_SRV_130</a> Value: <b>DOI_SRV_130</b>
public static final	<a href="#">DOI_SRV_130_NAME</a> Value: <b>Création d'un suffixe projet</b>
public static final	<a href="#">DOI_SRV_140</a> Value: <b>DOI_SRV_140</b>
public static final	<a href="#">DOI_SRV_140_NAME</a> Value: <b>Récupération du nom du projet à partir du suffixe projet</b>
public static final	<a href="#">DOI_SRV_150</a> Value: <b>DOI_SRV_150</b>
public static final	<a href="#">DOI_SRV_150_NAME</a> Value: <b>Création d'un token</b>
public static final	<a href="#">DOI_SRV_180</a> Value: <b>DOI_SRV_180</b>
public static final	<a href="#">DOI_SRV_180_NAME</a> Value: <b>Information sur le token</b>
public static final	<a href="#">DOI_SRV_190</a> Value: <b>DOI_SRV_190</b>
public static final	<a href="#">DOI_SRV_190_NAME</a> Value: <b>Visualisation des informations d'un DOI</b>

## Method Summary

String	<a href="#">comment()</a>
<a href="#">CoverageAnnotation</a>	<a href="#">coverage()</a>
String	<a href="#">documentName()</a>
String	<a href="#">reqId()</a>
String	<a href="#">reqName()</a>
String	<a href="#">version()</a>

### 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**

---

(continued from last page)

---

## 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
```

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---

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**

---

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---

## 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
```

---



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---

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**

---

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---

## 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
```

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---

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**

---

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---

## 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
```

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---

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()
```

---



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## 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

<a href="#">Requirement[]</a>	<a href="#">value()</a>
-------------------------------	-------------------------

**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	<a href="#">eastBoundLongitude</a>
protected	<a href="#">northBoundLatitude</a>
protected	<a href="#">southBoundLatitude</a>
protected	<a href="#">westBoundLongitude</a>

### Constructor Summary

public	<a href="#">Box()</a>
--------	-----------------------

### Method Summary

float	<a href="#"><code>getEastBoundLongitude()</code></a> Gets the value of the eastBoundLongitude property.
float	<a href="#"><code>getNorthBoundLatitude()</code></a> Gets the value of the northBoundLatitude property.
float	<a href="#"><code>getSouthBoundLatitude()</code></a> Gets the value of the southBoundLatitude property.
float	<a href="#"><code>getWestBoundLongitude()</code></a> Gets the value of the westBoundLongitude property.
void	<a href="#"><code>setEastBoundLongitude(float value)</code></a> Sets the value of the eastBoundLongitude property.
void	<a href="#"><code>setNorthBoundLatitude(float value)</code></a> Sets the value of the northBoundLatitude property.
void	<a href="#"><code>setSouthBoundLatitude(float value)</code></a> Sets the value of the southBoundLatitude property.
void	<a href="#"><code>setWestBoundLongitude(float value)</code></a> 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)
```

(continued from last page)

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	<a href="#"><u>CONTACT_PERSON</u></a> Person with knowledge of how to access, troubleshoot, or otherwise field issues related to the resource.
public static final	<a href="#"><u>DATA_COLLECTOR</u></a> Person/institution responsible for finding, gathering/collecting data under the guidelines of the author(s) or Principal Investigator (PI).
public static final	<a href="#"><u>DATA_CURATOR</u></a> 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	<a href="#"><u>DATA_MANAGER</u></a> Person (or organisation with a staff of data managers, such as a data centre) responsible for maintaining the finished resource.
public static final	<a href="#"><u>DISTRIBUTOR</u></a> Institution tasked with responsibility to generate/disseminate copies of the resource in either electronic or print form.
public static final	<a href="#"><u>EDITOR</u></a> A person who oversees the details related to the publication format of the resource.
public static final	<a href="#"><u>HOSTING_INSTITUTION</u></a> Typically, the organisation allowing the resource to be available on the internet through the provision of its hardware/software/operating support.
public static final	<a href="#"><u>OTHER</u></a> 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	<a href="#"><u>PRODUCER</u></a> Typically a person or organisation responsible for the artistry and form of a media product.
public static final	<a href="#"><u>PROJECT_LEADER</u></a> Person officially designated as head of project team or subâproject team instrumental in the work necessary to development of the resource.
public static final	<a href="#"><u>PROJECT_MANAGER</u></a> Person officially designated as manager of a project.
public static final	<a href="#"><u>PROJECT_MEMBER</u></a> Person on the membership list of a designated project/project team.
public static final	<a href="#"><u>REGISTRATION_AGENCY</u></a> Institution/organisation officially appointed by a Registration Authority to handle specific tasks within a defined area of responsibility.
public static final	<a href="#"><u>REGISTRATION_AUTHORITY</u></a> A standardsâsetting body from which Registration Agencies obtain official recognition and guidance.
public static final	<a href="#"><u>RELATED_PERSON</u></a> 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	<a href="#"><u>RESEARCH_GROUP</u></a> 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	<a href="#">RESEARCHER</a> A person involved in analyzing data or the results of an experiment or formal study.
public static final	<a href="#">RIGHTS HOLDER</a> Person or institution owning or managing property rights, including intellectual property rights over the resource.
public static final	<a href="#">SPONSOR</a> 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	<a href="#">SUPERVISOR</a> 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	<a href="#">WORK_PACKAGE_LEADER</a> A Work Package is a recognized data product, not all of which is included in publication.

## Method Summary

static <a href="#">ContributorType</a>	<a href="#">fromValue</a> (String v) Gets the contributor type from a value
String	<a href="#">value</a> () Gets the value.
static <a href="#">ContributorType</a>	<a href="#">valueOf</a> (String name)
static <a href="#">ContributorType[]</a>	<a href="#">values</a> ()

### 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

(continued from last page)

---

## 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 DataCurator's 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 how 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 fit 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 subproject 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 subteams. 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 standards-setting 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**

---

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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 in-kind 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()
```

(continued from last page)

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.

```
<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	<a href="#">ACCEPTED</a> The date that the publisher accepted the resource into their system.
public static final	<a href="#">AVAILABLE</a> The date the resource is made publicly available.
public static final	<a href="#">COLLECTED</a> The date or date range in which the resource content was collected.
public static final	<a href="#">COPYRIGHTED</a> The specific, documented date at which the resource receives a copyrighted status, if applicable.

<code>public static final</code>	<a href="#"><u>CREATED</u></a> 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.
<code>public static final</code>	<a href="#"><u>ISSUED</u></a> The date that the resource is published or distributed e.g.
<code>public static final</code>	<a href="#"><u>OTHER</u></a> Other
<code>public static final</code>	<a href="#"><u>SUBMITTED</u></a> The date the creator submits the resource to the publisher.
<code>public static final</code>	<a href="#"><u>UPDATED</u></a> The date of the last update to the resource, when the resource is being added to.
<code>public static final</code>	<a href="#"><u>VALID</u></a> The date or date range during which the dataset or resource is accurate.

## Method Summary

<code>static <a href="#"><u>DateType</u></a></code>	<a href="#"><u>fromValue</u></a> (String v) Finds DateType from value.
<code>String</code>	<a href="#"><u>value</u></a> () Returns the value
<code>static <a href="#"><u>DateType</u></a></code>	<a href="#"><u>valueOf</u></a> (String name)
<code>static <a href="#"><u>DateType</u></a>[]</code>	<a href="#"><u>values</u></a> ()

### 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.



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---

## 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.

---

(continued from last page)

## 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	<a href="#">ABSTRACT</a> A brief description of the resource and the context in which the resource was created.
public static final	<a href="#">METHODS</a> The methodology employed for the study or research.
public static final	<a href="#">OTHER</a> Other description information that does not fit into an existing category.
public static final	<a href="#">SERIES_INFORMATION</a> Information about a repeating series, such as volume, issue, number.
public static final	<a href="#">TABLE_OF_CONTENTS</a> A listing of the Table of Contents.
public static final	<a href="#">TECHNICAL_INFO</a> Detailed information that may be associated with design, implementation, operation, use, and/or maintenance of a process or system.

## Method Summary

<code>static <a href="#">DescriptionType</a></code>	<code><a href="#">fromValue</a>(String v)</code> Returns the description type from the value.
<code>String</code>	<code><a href="#">value</a>()</code> Returns the value.
<code>static <a href="#">DescriptionType</a></code>	<code><a href="#">valueOf</a>(String name)</code>
<code>static <a href="#">DescriptionType[]</a></code>	<code><a href="#">values</a>()</code>

### 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://kn.b.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/10.4229/23RDEUPVSEC2008&5CO.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

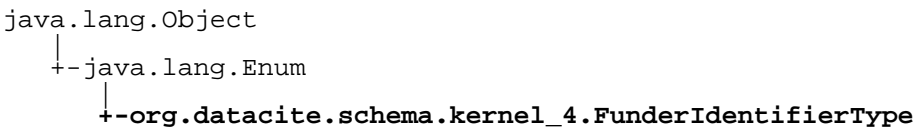
**Returns:**

the description type

---

# org.datacite.schema.kernel\_4

## Class FunderIdentifierType



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	<a href="#">CROSSREF_FUNDER_ID</a>
public static final	<a href="#">GRID</a>
public static final	<a href="#">ISNI</a>
public static final	<a href="#">OTHER</a>

Method Summary	
static <a href="#">FunderIdentifierType</a>	<a href="#">fromValue</a> (String v) Returns the FunderIdentifierType from the value
String	<a href="#">value</a> () Returns the value.
static <a href="#">FunderIdentifierType</a>	<a href="#">valueOf</a> (String name)

<pre>static FunderIdentifierType[ ]</pre>	<pre>values()</pre>
---	---------------------

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()
```

(continued from last page)

## 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



## 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	<a href="#">ORGANIZATIONAL</a>
public static final	<a href="#">PERSONAL</a>

### Method Summary

static <a href="#">NameType</a>	<a href="#">fromValue</a> (String v)
String	<a href="#">value</a> ()
static <a href="#">NameType</a>	<a href="#">valueOf</a> (String name)
static <a href="#">NameType[]</a>	<a href="#">values</a> ()

### 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	<a href="#">ObjectFactory()</a> 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

<a href="#">Box</a>	<a href="#">createBox()</a> Create an instance of <a href="#">Box</a>
<a href="#">Point</a>	<a href="#">createPoint()</a> Create an instance of <a href="#">Point</a>
<a href="#">Resource</a>	<a href="#">createResource()</a> Create an instance of <a href="#">Resource</a>
<a href="#">Resource.AlternateIdentifiers</a>	<a href="#">createResourceAlternateIdentifiers()</a> Create an instance of <a href="#">Resource.AlternateIdentifiers</a>
<a href="#">Resource.AlternateIdentifiers.AlternateIdentifier</a>	<a href="#">createResourceAlternateIdentifiersAlternateIdentifier()</a> Create an instance of <a href="#">Resource.AlternateIdentifiers.AlternateIdentifier</a>
<a href="#">Resource.Contributors</a>	<a href="#">createResourceContributors()</a> Create an instance of <a href="#">Resource.Contributors</a>
<a href="#">Resource.Contributors.Contributor</a>	<a href="#">createResourceContributorsContributor()</a> Create an instance of <a href="#">Resource.Contributors.Contributor</a>
<a href="#">Resource.Contributors.Contributor.ContributorName</a>	<a href="#">createResourceContributorsContributorContributorName()</a> Create an instance of <a href="#">Resource.Contributors.Contributor.ContributorName</a>
<a href="#">Resource.Contributors.Contributor.NameIdentifier</a>	<a href="#">createResourceContributorsContributorNameIdentifier()</a> Create an instance of <a href="#">Resource.Contributors.Contributor.NameIdentifier</a>
<a href="#">Resource.Creators</a>	<a href="#">createResourceCreators()</a> Create an instance of <a href="#">Resource.Creators</a>

<a href="#"><u>Resource.Creators.Creator</u></a>	<a href="#"><u>createResourceCreatorsCreator()</u></a> Create an instance of <a href="#"><u>Resource.Creators.Creator</u></a>
<a href="#"><u>Resource.Creators.Creator.CreatorName</u></a>	<a href="#"><u>createResourceCreatorsCreatorCreatorName()</u></a> Create an instance of <a href="#"><u>Resource.Creators.Creator.CreatorName</u></a>
<a href="#"><u>Resource.Creators.Creator.NameIdentifier</u></a>	<a href="#"><u>createResourceCreatorsCreatorNameIdentifier()</u></a> Create an instance of <a href="#"><u>Resource.Creators.Creator.NameIdentifier</u></a>
<a href="#"><u>Resource.Dates</u></a>	<a href="#"><u>createResourceDates()</u></a> Create an instance of <a href="#"><u>Resource.Dates</u></a>
<a href="#"><u>Resource.Dates.Date</u></a>	<a href="#"><u>createResourceDatesDate()</u></a> Create an instance of <a href="#"><u>Resource.Dates.Date</u></a>
<a href="#"><u>Resource.Descriptions</u></a>	<a href="#"><u>createResourceDescriptions()</u></a> Create an instance of <a href="#"><u>Resource.Descriptions</u></a>
<a href="#"><u>Resource.Descriptions.Description</u></a>	<a href="#"><u>createResourceDescriptionsDescription()</u></a> Create an instance of <a href="#"><u>Resource.Descriptions.Description</u></a>
<code>javax.xml.bind.JAXBElement</code>	<a href="#"><u>createResourceDescriptionsDescriptionBr(String value)</u></a> Create an instance of <code>javax.xml.bind.JAXBElement&lt;&lt;code&gt;java.lang.String&gt;</code>
<a href="#"><u>Resource.Formats</u></a>	<a href="#"><u>createResourceFormats()</u></a> Create an instance of <a href="#"><u>Resource.Formats</u></a>
<a href="#"><u>Resource.FundingReferences</u></a>	<a href="#"><u>createResourceFundingReferences()</u></a> Create an instance of <a href="#"><u>Resource.FundingReferences</u></a>
<a href="#"><u>Resource.FundingReferences.FundingReference</u></a>	<a href="#"><u>createResourceFundingReferencesFundingReference()</u></a> Create an instance of <a href="#"><u>Resource.FundingReferences.FundingReference</u></a>
<a href="#"><u>Resource.FundingReferences.FundingReference.AwardNumber</u></a>	<a href="#"><u>createResourceFundingReferencesFundingReferenceAwardNumber()</u></a> Create an instance of <a href="#"><u>Resource.FundingReferences.FundingReference.AwardNumber</u></a>
<a href="#"><u>Resource.FundingReferences.FundingReference.FunderIdentifier</u></a>	<a href="#"><u>createResourceFundingReferencesFundingReferenceFunderIdentifier()</u></a> Create an instance of <a href="#"><u>Resource.FundingReferences.FundingReference.FunderIdentifier</u></a>
<a href="#"><u>Resource.GeoLocations</u></a>	<a href="#"><u>createResourceGeoLocations()</u></a> Create an instance of <a href="#"><u>Resource.GeoLocations</u></a>
<a href="#"><u>Resource.GeoLocations.GeoLocation</u></a>	<a href="#"><u>createResourceGeoLocationsGeoLocation()</u></a> Create an instance of <a href="#"><u>Resource.GeoLocations.GeoLocation</u></a>
<a href="#"><u>Resource.GeoLocations.GeoLocation.GeoLocationPolygon</u></a>	<a href="#"><u>createResourceGeoLocationsGeoLocationGeoLocationPolygon()</u></a> Create an instance of <a href="#"><u>Resource.GeoLocations.GeoLocation.GeoLocationPolygon</u></a>
<a href="#"><u>Resource.Identifier</u></a>	<a href="#"><u>createResourceIdentifier()</u></a> Create an instance of <a href="#"><u>Resource.Identifier</u></a>
<a href="#"><u>Resource.RelatedIdentifiers</u></a>	<a href="#"><u>createResourceRelatedIdentifiers()</u></a> Create an instance of <a href="#"><u>Resource.RelatedIdentifiers</u></a>
<a href="#"><u>Resource.RelatedIdentifiers.RelatedIdentifier</u></a>	<a href="#"><u>createResourceRelatedIdentifiersRelatedIdentifier()</u></a> Create an instance of <a href="#"><u>Resource.RelatedIdentifiers.RelatedIdentifier</u></a>

<a href="#"><u>Resource.ResourceType</u></a>	<a href="#"><u>createResourceResourceType()</u></a> Create an instance of <a href="#"><u>Resource.ResourceType</u></a>
<a href="#"><u>Resource.RightsList</u></a>	<a href="#"><u>createResourceRightsList()</u></a> Create an instance of <a href="#"><u>Resource.RightsList</u></a>
<a href="#"><u>Resource.RightsList.Rights</u></a>	<a href="#"><u>createResourceRightsListRights()</u></a> Create an instance of <a href="#"><u>Resource.RightsList.Rights</u></a>
<a href="#"><u>Resource.Sizes</u></a>	<a href="#"><u>createResourceSizes()</u></a> Create an instance of <a href="#"><u>Resource.Sizes</u></a>
<a href="#"><u>Resource.Subjects</u></a>	<a href="#"><u>createResourceSubjects()</u></a> Create an instance of <a href="#"><u>Resource.Subjects</u></a>
<a href="#"><u>Resource.Subjects.Subject</u></a>	<a href="#"><u>createResourceSubjectsSubject()</u></a> Create an instance of <a href="#"><u>Resource.Subjects.Subject</u></a>
<a href="#"><u>Resource.Titles</u></a>	<a href="#"><u>createResourceTitles()</u></a> Create an instance of <a href="#"><u>Resource.Titles</u></a>
<a href="#"><u>Resource.Titles.Title</u></a>	<a href="#"><u>createResourceTitlesTitle()</u></a> Create an instance of <a href="#"><u>Resource.Titles.Title</u></a>

#### 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:**

(continued from last page)

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

---

(continued from last page)

---

## 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

---

(continued from last page)

---

## 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

---

(continued from last page)

---

## 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	<a href="#">pointLatitude</a>
protected	<a href="#">pointLongitude</a>

### Constructor Summary

public	<a href="#">Point</a> ()
--------	--------------------------

### Method Summary

float	<a href="#">getPointLatitude</a> () Gets the value of the pointLatitude property.
float	<a href="#">getPointLongitude</a> () Gets the value of the pointLongitude property.
void	<a href="#">setPointLatitude</a> (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.

(continued from last page)

**Returns:**

the latitude

---

**setPointLatitude**

```
public void setPointLatitude(float value)
```

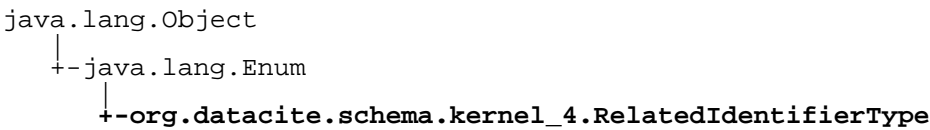
Sets the value of the pointLatitude property.

**Parameters:**

value - the latitude

# org.datacite.schema.kernel\_4

## Class RelatedIdentifierType



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	<a href="#">AR_XIV</a> 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	<a href="#">ARK</a> Archival Resource Key; URL designed to support long-term access to information objects.
public static final	<a href="#">BIBCODE</a> Astrophysics Data System bibliographic codes; a standardized 19 character identifier according to the syntax yyyyjjjjjvvvmppppa.
public static final	<a href="#">DOI</a> Digital Object Identifier; a character string used to uniquely identify an object.
public static final	<a href="#">EAN_13</a> European Article Number, now renamed International Article Number, but retaining the original acronym, is a 13-digit barcoding standard which is a superset of the original 12-digit Universal Product Code (UPC) system.
public static final	<a href="#">EISSN</a> Electronic International Standard Serial Number; ISSN used to identify periodicals in electronic form (eISSN or eâISSN).
public static final	<a href="#">HANDLE</a> e A handle is an abstract reference to a resource.
public static final	<a href="#">IGSN</a> International Geo Sample Number; a 9-digit alphanumeric code that uniquely identifies samples from our natural environment and related sampling features.
public static final	<a href="#">ISBN</a> International Standard Book Number; a unique numeric book identifier.
public static final	<a href="#">ISSN</a> International Standard Serial Number; a unique 8-digit number used to identify a print or electronic periodical publication.
public static final	<a href="#">ISTC</a> International Standard Text Code; a unique "number" assigned to a textual work.
public static final	<a href="#">LISSN</a> The linking ISSN or ISSNâL enables collocation or linking among different media versions of a continuing resource.
public static final	<a href="#">LSID</a> Life Science Identifiers; a unique identifier for data in the Life Science domain.
public static final	<a href="#">PMID</a> PubMed identifier; a unique number assigned to each PubMed record.
public static final	<a href="#">PURL</a> Persistent Uniform Resource Locator.
public static final	<a href="#">UPC</a> Universal Product Code is a barcode symbology used for tracking trade items in stores.
public static final	<a href="#">URL</a> Uniform Resource Locator, also known as web address, is a specific character string that constitutes a reference to a resource.
public static final	<a href="#">URN</a> Uniform Resource Name; is a unique and persistent identifier of an electronic document.

## Method Summary



<code>static RelatedIdentifierType</code>	<code>fromValue(String v)</code> Returns the related identifier type
<code>String</code>	<code>value()</code> Returns the value.
<code>static RelatedIdentifierType</code>	<code>valueOf(String name)</code>
<code>static RelatedIdentifierType []</code>	<code>values()</code>

**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 long-term 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
```

(continued from last page)

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  
yyyyjjjjjvvvmppppa.

<http://info.auri.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**

(continued from last page)

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
```

(continued from last page)

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
```

(continued from last page)

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:identifier:revision

```
<relatedidentifier>
  urn:lsid:ubio.org:namebank:11815
</relatedidentifier>
```

---

## PMID

```
public static final org.datacite.schema.kernel_4.RelatedIdentifierType PMID
```

(continued from last page)

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**

(continued from last page)

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 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\[\] values()
```

### valueOf

```
public static RelatedIdentifierType valueOf(String name)
```

### value

```
public String value()
```

Returns the value.

#### Returns:

the value

(continued from last page)

## fromValue

```
public static RelatedIdentifierType fromValue(String v)
```

Returns the related identifier type

### Parameters:

v - value

### 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	<a href="#"><u>CITES</u></a> indicates that A includes B in a citation.
public static final	<a href="#"><u>COMPILES</u></a> indicates B is the result of a compile or creation event using A.
public static final	<a href="#"><u>CONTINUES</u></a> indicates A is a continuation of the work B.
public static final	<a href="#"><u>DESCRIBES</u></a>
public static final	<a href="#"><u>DOCUMENTS</u></a> indicates A is documentation about/B.
public static final	<a href="#"><u>HAS_METADATA</u></a> indicates resource A has additional metadata B.
public static final	<a href="#"><u>HAS_PART</u></a> indicates A includes the part B.
public static final	<a href="#"><u>HAS_VERSION</u></a>
public static final	<a href="#"><u>IS_CITED_BY</u></a> indicates that B includes A in a citation.
public static final	<a href="#"><u>IS_COMPILED_BY</u></a> indicates B is used to compile or create A.
public static final	<a href="#"><u>IS_CONTINUED_BY</u></a> indicates A is continued by the work B.
public static final	<a href="#"><u>IS_DERIVED_FROM</u></a> indicates B is a source upon which A is based.
public static final	<a href="#"><u>IS_DESCRIBED_BY</u></a>

public static final	<a href="#"><u>IS_DOCUMENTED_BY</u></a> indicates B is documentation about/explaining A.
public static final	<a href="#"><u>IS_IDENTICAL_TO</u></a> 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	<a href="#"><u>IS_METADATA_FOR</u></a> indicates additional metadata A for a resource B.
public static final	<a href="#"><u>IS_NEW_VERSION_OF</u></a> indicates A is a new edition of B, where the new edition has been modified or updated.
public static final	<a href="#"><u>IS_ORIGINAL_FORM_OF</u></a> indicates A is the original form of B.
public static final	<a href="#"><u>IS_PART_OF</u></a> indicates A is a portion of B; may be used for elements of a series.
public static final	<a href="#"><u>IS_PREVIOUS_VERSION_OF</u></a> indicates A is a previous edition of B.
public static final	<a href="#"><u>IS_REFERENCED_BY</u></a> indicates A is used as a source of information by B.
public static final	<a href="#"><u>IS_REQUIRED_BY</u></a>
public static final	<a href="#"><u>IS_REVIEWED_BY</u></a> indicates that A is reviewed by B.
public static final	<a href="#"><u>IS_SOURCE_OF</u></a> indicates A is a source upon which B is based.
public static final	<a href="#"><u>IS_SUPPLEMENT_TO</u></a> indicates that A is a supplement to B.
public static final	<a href="#"><u>IS_SUPPLEMENTED_BY</u></a> indicates that B is a supplement to A.
public static final	<a href="#"><u>IS_VARIANT_FORM_OF</u></a> indicates A is a variant or different form of B, e.g.
public static final	<a href="#"><u>IS_VERSION_OF</u></a>
public static final	<a href="#"><u>REFERENCES</u></a> indicates B is used as a source of information for A.
public static final	<a href="#"><u>REQUIRES</u></a>
public static final	<a href="#"><u>REVIEWS</u></a> indicates that A is a review of B.

## Method Summary

static <a href="#"><u>RelationType</u></a>	<a href="#"><u>fromValue</u></a> (String v) Returns the relation type from a value
--	---

String	<a href="#"><code>value()</code></a> Returns the value.
static <a href="#"><code>RelationType</code></a>	<a href="#"><code>valueOf(String name)</code></a>
static <a href="#"><code>RelationType[]</code></a>	<a href="#"><code>values()</code></a>

#### 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
```

(continued from last page)

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**

(continued from last page)

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**

(continued from last page)

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**

(continued from last page)

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**

(continued from last page)

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**



(continued from last page)

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**

(continued from last page)

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 a 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**

(continued from last page)

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
```

---

(continued from last page)

## 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

(continued from last page)

**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.

```

<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>

```

```

        </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>
                  </sequence>
                </restriction>
              </complexContent>
            </complexType>
          </element>
        </sequence>
      </restriction>
    </complexContent>
  </complexType>
</element>

```

```

        </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>
            </complexType>
          </element>
        </sequence>
      </restriction>
    </complexContent>
  </complexType>
</element>

```

```

        </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>

```

```

    </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>

```

## Nested Class Summary

class	<a href="#">Resource.AlternateIdentifiers</a> Resource.AlternateIdentifiers
class	<a href="#">Resource.Contributors</a> Resource.Contributors
class	<a href="#">Resource.Creators</a> Resource.Creators
class	<a href="#">Resource.Dates</a> Resource.Dates
class	<a href="#">Resource.Descriptions</a> Resource.Descriptions

class	<a href="#">Resource.Formats</a> Resource.Formats
class	<a href="#">Resource.FundingReferences</a> Resource.FundingReferences
class	<a href="#">Resource.GeoLocations</a> Resource.GeoLocations
class	<a href="#">Resource.Identifier</a> Resource.Identifier
class	<a href="#">Resource.RelatedIdentifiers</a> Resource.RelatedIdentifiers
class	<a href="#">Resource.ResourceType</a> Resource.ResourceType
class	<a href="#">Resource.RightsList</a> Resource.RightsList
class	<a href="#">Resource.Sizes</a> Resource.Sizes
class	<a href="#">Resource.Subjects</a> Resource.Subjects
class	<a href="#">Resource.Titles</a> Resource.Titles

## Field Summary

protected	<a href="#">alternateIdentifiers</a>
protected	<a href="#">contributors</a>
protected	<a href="#">creators</a>
protected	<a href="#">dates</a>
protected	<a href="#">descriptions</a>
protected	<a href="#">formats</a>
protected	<a href="#">fundingReferences</a>
protected	<a href="#">geoLocations</a>
protected	<a href="#">identifier</a>
protected	<a href="#">language</a>
protected	<a href="#">publicationYear</a>



protected	<a href="#">publisher</a>
protected	<a href="#">relatedIdentifiers</a>
protected	<a href="#">resourceType</a>
protected	<a href="#">rightsList</a>
protected	<a href="#">sizes</a>
protected	<a href="#">subjects</a>
protected	<a href="#">titles</a>
protected	<a href="#">version</a>

## Constructor Summary

public	<a href="#">Resource</a> ( )
--------	------------------------------

## Method Summary

<a href="#">Resource.AlternateIdentifiers</a>	<a href="#">getAlternateIdentifiers</a> ( ) Gets the value of the alternateIdentifiers property.
<a href="#">Resource.Contributors</a>	<a href="#">getContributors</a> ( ) Gets the value of the contributors property.
<a href="#">Resource.Creators</a>	<a href="#">getCreators</a> ( ) Gets the value of the creators property.
<a href="#">Resource.Dates</a>	<a href="#">getDates</a> ( ) Gets the value of the dates property.
<a href="#">Resource.Descriptions</a>	<a href="#">getDescriptions</a> ( ) Gets the value of the descriptions property.
<a href="#">Resource.Formats</a>	<a href="#">getFormats</a> ( ) Gets the value of the formats property.
<a href="#">Resource.FundingReferences</a>	<a href="#">getFundingReferences</a> ( ) Gets the value of the fundingReferences property.
<a href="#">Resource.GeoLocations</a>	<a href="#">getGeoLocations</a> ( ) Gets the value of the geoLocations property.
<a href="#">Resource.Identifier</a>	<a href="#">getIdentifier</a> ( ) Gets the value of the identifier property.
String	<a href="#">getLanguage</a> ( ) Gets the value of the language property.
String	<a href="#">getPublicationYear</a> ( ) Gets the value of the publicationYear property.

String	<a href="#"><code>getPublisher()</code></a> Gets the value of the publisher property.
<a href="#"><code>Resource.RelatedIdentifiers</code></a>	<a href="#"><code>getRelatedIdentifiers()</code></a> Gets the value of the relatedIdentifiers property.
<a href="#"><code>Resource.ResourceType</code></a>	<a href="#"><code>getResourceType()</code></a> Gets the value of the resourceType property.
<a href="#"><code>Resource.RightsList</code></a>	<a href="#"><code>getRightsList()</code></a> Gets the value of the rightsList property.
<a href="#"><code>Resource.Sizes</code></a>	<a href="#"><code>getSizes()</code></a> Gets the value of the sizes property.
<a href="#"><code>Resource.Subjects</code></a>	<a href="#"><code>getSubjects()</code></a> Gets the value of the subjects property.
<a href="#"><code>Resource.Titles</code></a>	<a href="#"><code>getTitles()</code></a> Gets the value of the titles property.
String	<a href="#"><code>getVersion()</code></a> Gets the value of the version property.
void	<a href="#"><code>setAlternateIdentifiers(Resource.AlternateIdentifiers value)</code></a> Sets the value of the alternateIdentifiers property.
void	<a href="#"><code>setContributors(Resource.Contributors value)</code></a> Sets the value of the contributors property.
void	<a href="#"><code>setCreators(Resource.Creators value)</code></a> Sets the value of the creators property.
void	<a href="#"><code>setDates(Resource.Dates value)</code></a> Sets the value of the dates property.
void	<a href="#"><code>setDescriptions(Resource.Descriptions value)</code></a> Sets the value of the descriptions property.
void	<a href="#"><code>setFormats(Resource.Formats value)</code></a> Sets the value of the formats property.
void	<a href="#"><code>setFundingReferences(Resource.FundingReferences value)</code></a> Sets the value of the fundingReferences property.
void	<a href="#"><code>setGeoLocations(Resource.GeoLocations value)</code></a> Sets the value of the geoLocations property.
void	<a href="#"><code>setIdentifier(Resource.Identifier value)</code></a> Sets the value of the identifier property.
void	<a href="#"><code>setLanguage(String value)</code></a> Sets the value of the language property.
void	<a href="#"><code>setPublicationYear(String value)</code></a> Sets the value of the publicationYear property.
void	<a href="#"><code>setPublisher(String value)</code></a> Sets the value of the publisher property.

void	<a href="#"><code>setRelatedIdentifiers(Resource.RelatedIdentifiers value)</code></a> Sets the value of the relatedIdentifiers property.
void	<a href="#"><code>setResourceType(Resource.ResourceType value)</code></a> Sets the value of the resourceType property.
void	<a href="#"><code>setRightsList(Resource.RightsList value)</code></a> Sets the value of the rightsList property.
void	<a href="#"><code>setSizes(Resource.Sizes value)</code></a> Sets the value of the sizes property.
void	<a href="#"><code>setSubjects(Resource.Subjects value)</code></a> Sets the value of the subjects property.
void	<a href="#"><code>setTitles(Resource.Titles value)</code></a> Sets the value of the titles property.
void	<a href="#"><code>setVersion(String value)</code></a> 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`

(continued from last page)

---

## 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**

---

(continued from last page)

---

## 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()
```

---

(continued from last page)

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)
```

---



(continued from last page)

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()
```

---

(continued from last page)

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	<a href="#">Resource.AlternateIdentifiers.AlternateIdentifier</a> Resource.AlternateIdentifiers.AlternateIdentifier
-------	--

### Field Summary

protected	<a href="#">alternateIdentifier</a>
-----------	-------------------------------------

### Constructor Summary

public	<a href="#">AlternateIdentifiers()</a>
--------	--

### 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	<a href="#">alternateIdentifierType</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">AlternateIdentifier()</a>
--------	---------------------------------------

### Method Summary

String	<a href="#">getAlternateIdentifierType()</a> Gets the value of the alternateIdentifierType property.
String	<a href="#">getValue()</a> Gets the value of the value property.
void	<a href="#">setAlternateIdentifierType(String value)</a> Sets the value of the alternateIdentifierType property.
void	<a href="#">setValue(String value)</a> 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

---

(continued from last page)

## **setAlternateIdentifierType**

```
public void setAlternateIdentifierType(String value)
```

Sets the value of the alternateIdentifierType property.

### **Parameters:**

value - allowed object is `java.lang.String`



## 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	<a href="#">Resource.Contributors.Contributor</a> Resource.Contributors.Contributor
-------	--

## Field Summary

protected	<a href="#">contributor</a>
-----------	-----------------------------

## Constructor Summary

public	<a href="#">Contributors</a> ( )
--------	----------------------------------

## Method Summary

List	<a href="#">getContributor</a> ( ) 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**( )

(continued from last page)

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	<a href="#">Resource.Contributors.Contributor.ContributorName</a> Resource.Contributors.Contributor.ContributorName
class	<a href="#">Resource.Contributors.Contributor.NameIdentifier</a> Resource.Contributors.Contributor.NameIdentifier

## Field Summary

protected	<a href="#">affiliation</a>
protected	<a href="#">contributorName</a>
protected	<a href="#">contributorType</a>
protected	<a href="#">familyName</a>
protected	<a href="#">givenName</a>
protected	<a href="#">nameIdentifier</a>

## Constructor Summary

public	<a href="#">Contributor</a> ()
--------	--------------------------------

## Method Summary

List	<a href="#">getAffiliation</a> () Gets the value of the affiliation property.
<a href="#">Resource.Contributors.ContributorName</a>	<a href="#">getContributorName</a> () Gets the value of the contributorName property.
<a href="#">ContributorType</a>	<a href="#">getContributorType</a> () Gets the value of the contributorType property.
String	<a href="#">getFamilyName</a> () Gets the value of the familyName property.
String	<a href="#">getGivenName</a> () Gets the value of the givenName property.
List	<a href="#">getNameIdentifier</a> () Gets the value of the nameIdentifier property.
void	<a href="#">setContributorName</a> ( <a href="#">Resource.Contributors.Contributor.ContributorName</a> value) Sets the value of the contributorName property.
void	<a href="#">setContributorType</a> ( <a href="#">ContributorType</a> value) Sets the value of the contributorType property.
void	<a href="#">setFamilyName</a> (String value) Sets the value of the familyName property.
void	<a href="#">setGivenName</a> (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.



(continued from last page)

**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()
```

(continued from last page)

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>nonemptycontentType" >
      <attribute name="nameType" type="{http://datacite.org/schema/kernel-4}nameType" />
    </extension>
  </simpleContent>
</complexType>
```

### Field Summary

protected	<a href="#">nameType</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">ContributorName()</a>
--------	-----------------------------------

### Method Summary

<a href="#">NameType</a>	<a href="#">getNameType()</a> Gets the value of the nameType property.
String	<a href="#">getValue()</a> Gets the value of the value property.
void	<a href="#">setNameType(NameType value)</a> Sets the value of the nameType property.
void	<a href="#">setValue(String value)</a> 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](#)

---

(continued from last page)

## setNameType

```
public void setNameType(NameType value)
```

Sets the value of the nameType property.

### Parameters:

value - allowed object is [NameType](#)

## 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	<a href="#">nameIdentifierScheme</a>
protected	<a href="#">schemeURI</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">NameIdentifier()</a>
--------	----------------------------------

### Method Summary

String	<a href="#">getNameIdentifierScheme()</a> Gets the value of the nameIdentifierScheme property.
String	<a href="#">getSchemeURI()</a> Gets the value of the schemeURI property.
String	<a href="#">getValue()</a> Gets the value of the value property.

void	<a href="#">setNameIdentifierScheme</a> (String value) Sets the value of the nameIdentifierScheme property.
void	<a href="#">setSchemeURI</a> (String value) Sets the value of the schemeURI property.
void	<a href="#">setValue</a> (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.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>nonemptycontentTypeStringType">
                          <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>nonemptycontentTypeStringType">
                          <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	<a href="#">Resource.Creators.Creator</a> Resource.Creators.Creator
-------	--

## Field Summary

protected	<a href="#">creator</a>
-----------	-------------------------

## Constructor Summary

public	<a href="#">Creators()</a>
--------	----------------------------

## Method Summary

List	<a href="#">getCreator()</a> 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()**

(continued from last page)

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	<a href="#">Resource.Creators.Creator.CreatorName</a> Resource.Creators.Creator.CreatorName
class	<a href="#">Resource.Creators.Creator.NameIdentifier</a> Resource.Creators.Creator.NameIdentifier

## Field Summary

protected	<a href="#">affiliation</a>
protected	<a href="#">creatorName</a>
protected	<a href="#">familyName</a>
protected	<a href="#">givenName</a>
protected	<a href="#">nameIdentifier</a>

## Constructor Summary

public	<a href="#">Creator</a> ()
--------	----------------------------

## Method Summary

List	<a href="#">getAffiliation</a> () Gets the value of the affiliation property.
<a href="#">Resource.Creators.Creator.CreatorName</a>	<a href="#">getCreatorName</a> () Gets the value of the creatorName property.
String	<a href="#">getFamilyName</a> () Gets the value of the familyName property.
String	<a href="#">getGivenName</a> () Gets the value of the givenName property.
List	<a href="#">getNameIdentifier</a> () Gets the value of the nameIdentifier property.
void	<a href="#">setCreatorName</a> ( <a href="#">Resource.Creators.Creator.CreatorName</a> value) Sets the value of the creatorName property.
void	<a href="#">setFamilyName</a> (String value) Sets the value of the familyName property.
void	<a href="#">setGivenName</a> (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.

---



(continued from last page)

**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()
```

(continued from last page)

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>nonemptycontentType">
      <attribute name="nameType" type="{http://datacite.org/schema/kernel-4}nameType" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	<a href="#">nameType</a>
protected	<a href="#">value</a>

Constructor Summary

public	<a href="#">CreatorName()</a>
--------	-------------------------------

Method Summary

<a href="#">NameType</a>	<a href="#">getNameType()</a> Gets the value of the nameType property.
String	<a href="#">getValue()</a> Gets the value of the value property.
void	<a href="#">setNameType(NameType value)</a> Sets the value of the nameType property.
void	<a href="#">setValue(String value)</a> 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](#)

(continued from last page)

## setNameType

```
public void setNameType(NameType value)
```

Sets the value of the nameType property.

### Parameters:

value - allowed object is [NameType](#)

# 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>nonemptycontentType"
      <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	<a href="#">nameIdentifierScheme</a>
protected	<a href="#">schemeURI</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">NameIdentifier</a> ( )
--------	------------------------------------

### Method Summary

String	<a href="#">getNameIdentifierScheme</a> ( ) Gets the value of the nameIdentifierScheme property.
String	<a href="#">getSchemeURI</a> ( ) Gets the value of the schemeURI property.
String	<a href="#">getValue</a> ( ) Gets the value of the value property.

void	<a href="#">setNameIdentifierScheme</a> (String value) Sets the value of the nameIdentifierScheme property.
void	<a href="#">setSchemeURI</a> (String value) Sets the value of the schemeURI property.
void	<a href="#">setValue</a> (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	<a href="#">Resource.Dates.Date</a> Resource.Dates.Date
-------	--

### Field Summary

protected	<a href="#">date</a>
-----------	----------------------

### Constructor Summary

public	<a href="#">Dates()</a>
--------	-------------------------

## Method Summary

List	<a href="#">getDate()</a> 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	<a href="#">dateInformation</a>
protected	<a href="#">dateType</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">Date()</a>
--------	------------------------

### Method Summary

String	<a href="#">getDateInformation()</a> Gets the value of the dateInformation property.
<a href="#">DateType</a>	<a href="#">getDateType()</a> Gets the value of the dateType property.
String	<a href="#">getValue()</a> Gets the value of the value property.

void	<a href="#">setDateInformation</a> (String value) Sets the value of the dateInformation property.
void	<a href="#">setDateType</a> ( <a href="#">DateType</a> value) Sets the value of the dateType property.
void	<a href="#">setValue</a> (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`

(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`

---

## 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	<a href="#">description</a>
-----------	-----------------------------

## Constructor Summary

public	<a href="#">Descriptions</a> ()
--------	---------------------------------

## Method Summary

List	<a href="#">getDescription</a> () 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**()

(continued from last page)

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	<a href="#">content</a>
protected	<a href="#">descriptionType</a>
protected	<a href="#">lang</a>

### Constructor Summary

public	<a href="#">Description()</a>
--------	-------------------------------

### Method Summary

List	<a href="#"><code>getContent()</code></a> Gets the value of the content property.
<a href="#"><code>DescriptionType</code></a>	<a href="#"><code>getDescriptionType()</code></a> Gets the value of the descriptionType property.
String	<a href="#"><code>getLang()</code></a> Gets the value of the lang property.
void	<a href="#"><code>setDescriptionType&gt;DescriptionType</code></a> value) Sets the value of the descriptionType property.
void	<a href="#"><code>setLang</code></a> (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()`

(continued from last page)

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 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	<a href="#">format</a>
-----------	------------------------

### Constructor Summary

public	<a href="#">Formats()</a>
--------	---------------------------

### Method Summary

List	<a href="#">getFormat()</a> 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

(continued from last page)

## 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}nonemptycontentTypeStringType">
                        </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}nonemptycontentTypeStringType">
                          </restriction>
                        </simpleType>
                      </element>
                    </all>
                  </restriction>
                </complexContent>
              </complexType>
            </element>
          </sequence>
        </restriction>
      </complexContent>

```

</complexType>

## Nested Class Summary

class	<a href="#">Resource.FundingReferences.FundingReference</a> Resource.FundingReferences.FundingReference
-------	--

## Field Summary

protected	<a href="#">fundingReference</a>
-----------	----------------------------------

## Constructor Summary

public	<a href="#">FundingReferences()</a>
--------	-------------------------------------

## Method Summary

List	<a href="#">getFundingReference()</a> 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()**



(continued from last page)

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}nonemptycontentTypeStringType">
              </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}nonemptycontentTypeStringType">
                </restriction>
              </simpleType>
            </element>
          </all>
        </restriction>
      </complexContent>
    </complexType>

```

## Nested Class Summary

class	<a href="#">Resource.FundingReferences.FundingReference.AwardNumber</a> Resource.FundingReferences.FundingReference.AwardNumber
class	<a href="#">Resource.FundingReferences.FundingReference.FunderIdentifier</a> Resource.FundingReferences.FundingReference.FunderIdentifier

## Field Summary

protected	<a href="#">awardNumber</a>
protected	<a href="#">awardTitle</a>
protected	<a href="#">funderIdentifier</a>
protected	<a href="#">funderName</a>

## Constructor Summary

public	<a href="#">FundingReference</a> ( )
--------	--------------------------------------

## Method Summary

<a href="#">Resource.FundingReferences.FundingReference.AwardNumber</a>	<a href="#">getAwardNumber</a> ( ) Gets the value of the awardNumber property.
String	<a href="#">getAwardTitle</a> ( ) Gets the value of the awardTitle property.
<a href="#">Resource.FundingReferences.FundingReference.FunderIdentifier</a>	<a href="#">getFunderIdentifier</a> ( ) Gets the value of the funderIdentifier property.
String	<a href="#">getFunderName</a> ( ) Gets the value of the funderName property.
void	<a href="#">setAwardNumber</a> ( <a href="#">Resource.FundingReferences.FundingReference.AwardNumber</a> value) Sets the value of the awardNumber property.
void	<a href="#">setAwardTitle</a> (String value) Sets the value of the awardTitle property.
void	<a href="#">setFunderIdentifier</a> ( <a href="#">Resource.FundingReferences.FundingReference.FunderIdentifier</a> value) Sets the value of the funderIdentifier property.
void	<a href="#">setFunderName</a> (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**

(continued from last page)

---

## funderIdentifier

protected  
org.datacite.schema.kernel\_4.Resource.FundingReferences.FundingReference.FunderIdentifier **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.

(continued from last page)

**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	<a href="#">awardURI</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">AwardNumber</a> ( )
--------	---------------------------------

### Method Summary

String	<a href="#">getAwardURI</a> ( ) Gets the value of the awardURI property.
String	<a href="#">getValue</a> ( ) Gets the value of the value property.
void	<a href="#">setAwardURI</a> (String value) Sets the value of the awardURI property.
void	<a href="#">setValue</a> (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

---



(continued from last page)

## **setAwardURI**

```
public void setAwardURI(String value)
```

Sets the value of the awardURI property.

### **Parameters:**

value - allowed object is `java.lang.String`

## org.datacite.schema.kernel\_4 Class Resource.FundingReferences.FundingReference.FunderIdentifier

java.lang.Object

org.datacite.schema.kernel\_4.Resource.FundingReferences.FundingReference.FunderIdentifier

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	<a href="#">funderIdentifierType</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">FunderIdentifier()</a>
--------	------------------------------------

### Method Summary

<a href="#">FunderIdentifierType</a>	<a href="#">getFunderIdentifierType()</a> Gets the value of the funderIdentifierType property.
String	<a href="#">getValue()</a> Gets the value of the value property.
void	<a href="#">setFunderIdentifierType(FunderIdentifierType value)</a> Sets the value of the funderIdentifierType property.
void	<a href="#">setValue(String value)</a> 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](#)

---

(continued from last page)

## setFunderIdentifierType

```
public void setFunderIdentifierType(FunderIdentifierType value)
```

Sets the value of the funderIdentifierType property.

### Parameters:

value - allowed object is [FunderIdentifierType](#)

## 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	<a href="#">Resource.GeoLocations.GeoLocation</a> Resource.GeoLocations.GeoLocation
-------	--

## Field Summary

protected	<a href="#">geoLocation</a>
-----------	-----------------------------

## Constructor Summary

public	<a href="#">GeoLocations()</a>
--------	--------------------------------

## Method Summary

List	<a href="#">getGeoLocation()</a> 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	<a href="#">Resource.GeoLocations.GeoLocation.GeoLocationPolygon</a> 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()**

(continued from last page)

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 `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	<a href="#">inPolygonPoint</a>
protected	<a href="#">polygonPoint</a>

### Constructor Summary

public	<a href="#">GeoLocationPolygon()</a>
--------	--------------------------------------

### Method Summary

<a href="#">Point</a>	<a href="#">getInPolygonPoint()</a> Gets the value of the inPolygonPoint property.
List	<a href="#">getPolygonPoint()</a> Gets the value of the polygonPoint property.
void	<a href="#">setInPolygonPoint(<a href="#">Point</a> value)</a> 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.

---

(continued from last page)

**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	<a href="#">IDENTIFIER_TYPE</a> Value: DOI
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">Identifier()</a>
--------	------------------------------

### Method Summary

String	<a href="#">getValue()</a> Gets the value of the value property.
void	<a href="#">setValue(String value)</a> 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

(continued from last page)

## 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	<a href="#">Resource.RelatedIdentifiers.RelatedIdentifier</a> Resource.RelatedIdentifiers.RelatedIdentifier
-------	--



## Field Summary

protected	<a href="#">relatedIdentifier</a>
-----------	-----------------------------------

## Constructor Summary

public	<a href="#">RelatedIdentifiers()</a>
--------	--------------------------------------

## Method Summary

List	<a href="#">getRelatedIdentifier()</a> 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()**

(continued from last page)

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	<a href="#">relatedIdentifierType</a>
protected	<a href="#">relatedMetadataScheme</a>
protected	<a href="#">relationType</a>
protected	<a href="#">resourceTypeGeneral</a>
protected	<a href="#">schemeType</a>
protected	<a href="#">schemeURI</a>
protected	<a href="#">value</a>

## Constructor Summary

public	<a href="#"><u>RelatedIdentifier</u></a> ( )
--------	--

## Method Summary

<a href="#"><u>RelatedIdentifierType</u></a>	<a href="#"><u>getRelatedIdentifierType</u></a> ( ) Gets the value of the relatedIdentifierType property.
String	<a href="#"><u>getRelatedMetadataScheme</u></a> ( ) Gets the value of the relatedMetadataScheme property.
<a href="#"><u>RelationType</u></a>	<a href="#"><u>getRelationType</u></a> ( ) Gets the value of the relationType property.
<a href="#"><u>ResourceType</u></a>	<a href="#"><u>getResourceTypeGeneral</u></a> ( ) Gets the value of the resourceTypeGeneral property.
String	<a href="#"><u>getSchemeType</u></a> ( ) Gets the value of the schemeType property.
String	<a href="#"><u>getSchemeURI</u></a> ( ) Gets the value of the schemeURI property.
String	<a href="#"><u>getValue</u></a> ( ) Gets the value of the value property.
void	<a href="#"><u>setRelatedIdentifierType</u></a> ( <a href="#"><u>RelatedIdentifierType</u></a> value) Sets the value of the relatedIdentifierType property.
void	<a href="#"><u>setRelatedMetadataScheme</u></a> (String value) Sets the value of the relatedMetadataScheme property.
void	<a href="#"><u>setRelationType</u></a> ( <a href="#"><u>RelationType</u></a> value) Sets the value of the relationType property.
void	<a href="#"><u>setResourceTypeGeneral</u></a> ( <a href="#"><u>ResourceType</u></a> value) Sets the value of the resourceTypeGeneral property.
void	<a href="#"><u>setSchemeType</u></a> (String value) Sets the value of the schemeType property.
void	<a href="#"><u>setSchemeURI</u></a> (String value) Sets the value of the schemeURI property.
void	<a href="#"><u>setValue</u></a> (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)
```

---

(continued from last page)

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	<a href="#">resourceTypeGeneral</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">ResourceType</a> ( )
--------	----------------------------------

### Method Summary

<a href="#">ResourceType</a>	<a href="#">getResourceTypeGeneral</a> ( ) Gets the value of the resourceTypeGeneral property.
String	<a href="#">getValue</a> ( ) Gets the value of the value property.
void	<a href="#">setResourceTypeGeneral</a> ( <a href="#">ResourceType</a> value) Sets the value of the resourceTypeGeneral property.
void	<a href="#">setValue</a> (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](#)

(continued from last page)

## setResourceTypeGeneral

```
public void setResourceTypeGeneral(ResourceType value)
```

Sets the value of the resourceTypeGeneral property.

### Parameters:

value - allowed object is [ResourceType](#)

# 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" />
              </extension>
            </simpleContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

### Nested Class Summary

class	<a href="#">Resource.RightsList.Rights</a> Resource.RightsList.Rights
-------	--

### Field Summary

protected	<a href="#">rights</a>
-----------	------------------------

### Constructor Summary

public	<a href="#">RightsList()</a>
--------	------------------------------

## 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	<a href="#">lang</a>
protected	<a href="#">rightsURI</a>
protected	<a href="#">value</a>

### Constructor Summary

public	<a href="#">Rights()</a>
--------	--------------------------

### Method Summary

String	<a href="#">getLang()</a> Gets the value of the lang property.
String	<a href="#">getRightsURI()</a> Gets the value of the rightsURI property.
String	<a href="#">getValue()</a> Gets the value of the value property.
void	<a href="#">setLang(String value)</a> Sets the value of the lang property.

void	<a href="#"><code>setRightsURI</code></a> (String value) Sets the value of the rightsURI property.
void	<a href="#"><code>setValue</code></a> (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.

(continued from last page)

**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	<a href="#">size</a>
-----------	----------------------

### Constructor Summary

public	<a href="#">Sizes()</a>
--------	-------------------------

### Method Summary

List	<a href="#">getSize()</a> 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

(continued from last page)

## 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	<a href="#">Resource.Subjects.Subject</a> Resource.Subjects.Subject
-------	--

### Field Summary

protected	<a href="#">subject</a>
-----------	-------------------------

### Constructor Summary

public	<a href="#">Subjects()</a>
--------	----------------------------

## Method Summary

List	<a href="#">getSubject()</a> 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	<a href="#">lang</a>
protected	<a href="#">schemeURI</a>
protected	<a href="#">subjectScheme</a>
protected	<a href="#">value</a>
protected	<a href="#">valueURI</a>

### Constructor Summary

public	<a href="#">Subject()</a>
--------	---------------------------

### Method Summary

String	<a href="#">getLang()</a> Gets the value of the lang property.
--------	---

String	<a href="#"><code>getSchemeURI()</code></a> Gets the value of the schemeURI property.
String	<a href="#"><code>getSubjectScheme()</code></a> Gets the value of the subjectScheme property.
String	<a href="#"><code>getValue()</code></a> Gets the value of the value property.
String	<a href="#"><code>getValueURI()</code></a> Gets the value of the valueURI property.
void	<a href="#"><code>setLang(String value)</code></a> Sets the value of the lang property.
void	<a href="#"><code>setSchemeURI(String value)</code></a> Sets the value of the schemeURI property.
void	<a href="#"><code>setSubjectScheme(String value)</code></a> Sets the value of the subjectScheme property.
void	<a href="#"><code>setValue(String value)</code></a> Sets the value of the value property.
void	<a href="#"><code>setValueURI(String value)</code></a> 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**

(continued from last page)

---

## 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**()

(continued from last page)

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	<a href="#">Resource.Titles.Title</a> Resource.Titles.Title
-------	--

### Field Summary

protected	<a href="#">title</a>
-----------	-----------------------

### Constructor Summary

public	<a href="#">Titles()</a>
--------	--------------------------

## Method Summary

List	<a href="#">getTitle()</a> 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



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>nonemptycontentType"
      <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	<a href="#">lang</a>
protected	<a href="#">titleType</a>
protected	<a href="#">value</a>

Constructor Summary	
public	<a href="#">Title()</a>

Method Summary	
String	<a href="#">getLang()</a> Gets the value of the lang property.
<a href="#">TitleType</a>	<a href="#">getTitleType()</a> Gets the value of the titleType property.
String	<a href="#">getValue()</a> Gets the value of the value property.
void	<a href="#">setLang(String value)</a> Sets the value of the lang property.

void	<a href="#"><code>setTitleType(TitleType value)</code></a> Sets the value of the titleType property.
void	<a href="#"><code>setValue(String value)</code></a> 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.

(continued from last page)

**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)
```

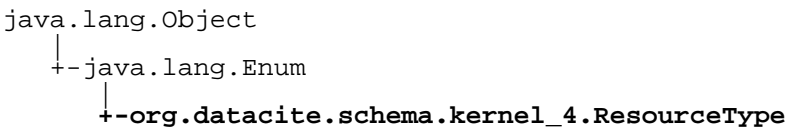
Sets the value of the lang property.

**Parameters:**value - allowed object is `java.lang.String`

---

# org.datacite.schema.kernel\_4

## Class ResourceType



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	<a href="#">AUDIOVISUAL</a>	A series of visual representations imparting an impression of motion when shown in succession.
public static final	<a href="#">COLLECTION</a>	An aggregation of resources of various types, or a list of resources that form part of a publication.

<code>public static final</code>	<a href="#">DATA_PAPER</a>
<code>public static final</code>	<a href="#">DATASET</a> Data encoded in a defined structure.
<code>public static final</code>	<a href="#">EVENT</a> A nonâpersistent, timeâbased occurrence.
<code>public static final</code>	<a href="#">IMAGE</a> A visual representation other than text.
<code>public static final</code>	<a href="#">INTERACTIVE_RESOURCE</a> A resource requiring interaction from the user to be understood, executed, or experienced.
<code>public static final</code>	<a href="#">MODEL</a> An abstract, conceptual, graphical, mathematical or visualization model that represents empirical objects, phenomena, or physical processes.
<code>public static final</code>	<a href="#">OTHER</a> If selected, supply a value for ResourceType.
<code>public static final</code>	<a href="#">PHYSICAL_OBJECT</a> An inanimate, threeâdimensional object or substance.
<code>public static final</code>	<a href="#">SERVICE</a> A system that provides one or more functions of value to the endâuser.
<code>public static final</code>	<a href="#">SOFTWARE</a> A computer program in source code (text) or compiled form.
<code>public static final</code>	<a href="#">SOUND</a> A resource primarily intended to be heard.
<code>public static final</code>	<a href="#">TEXT</a> A resource consisting primarily of words for reading.
<code>public static final</code>	<a href="#">WORKFLOW</a> 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

<code>static <a href="#">ResourceType</a></code>	<a href="#">fromValue</a> (String v) Gets the resource type from a value
<code>String</code>	<a href="#">value</a> () Gets the value.
<code>static <a href="#">ResourceType</a></code>	<a href="#">valueOf</a> (String name)
<code>static <a href="#">ResourceType</a>[]</code>	<a href="#">values</a> ()

### 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>

---

(continued from last page)

## 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	<a href="#">ALTERNATIVE_TITLE</a>
public static final	<a href="#">OTHER</a>
public static final	<a href="#">SUBTITLE</a>
public static final	<a href="#">TRANSLATED_TITLE</a>

## Method Summary

static <a href="#">TitleType</a>	<a href="#">fromValue</a> (String v) Returns the title type
String	<a href="#">value</a> () Returns the value
static <a href="#">TitleType</a>	<a href="#">valueOf</a> (String name)

static <a href="#">TitleType[]</a>	<a href="#">values()</a>
------------------------------------	--------------------------

**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

---

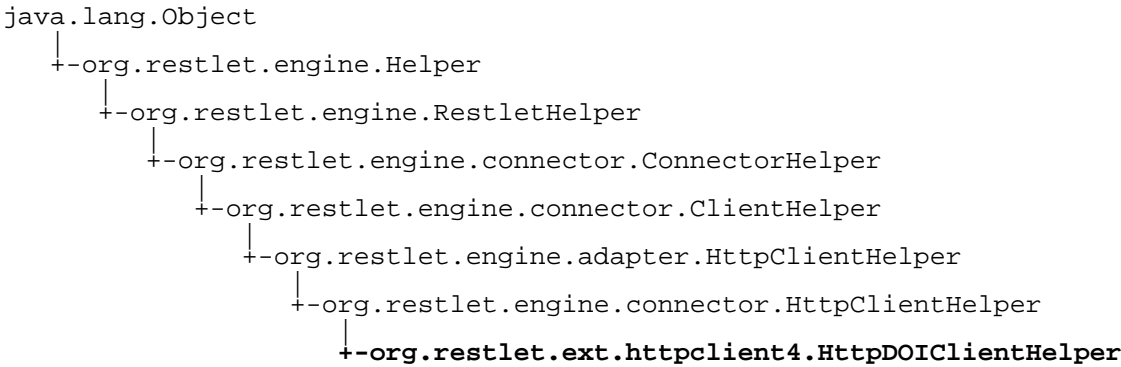
---

**Package**

# **org.restlet.ext.httpclient4**

Provides a Bridge to JSPNego library, which supports different kind of proxies.

org.restlet.ext.httpclient4  
Class HttpDOIClientHelper



```
public class HttpDOIClientHelper
extends org.restlet.engine.connector.HttpClientHelper
```

HttpClient configuration.  
**Author:**  
Jean-Christophe Malapert (jean-christophe.malapert@cnes.fr)

Constructor Summary

public	<a href="#">HttpDOIClientHelper</a> (org.restlet.Client client) Constructor.
--------	---

Method Summary

org.restlet.engine.adapter.ClientCall	<a href="#">create</a> (org.restlet.Request request)
fr.cnes.httpclient.HttpClient	<a href="#">getHttpClient</a> () Returns the wrapped Apache HTTP Client.
long	<a href="#">getIdleTimeout</a> () Returns the time in ms beyond which idle connections are eligible for reaping.
String	<a href="#">getKeyStorePath</a> () Returns the key store path.
String	<a href="#">getKeyStorePwd</a> () Returns the key store password.
String	<a href="#">getKeyStoreType</a> () Returns the key store type.
int	<a href="#">getMaxConnectionsPerHost</a> () Returns the maximum number of connections that will be created for any particular host.
int	<a href="#">getMaxRedirects</a> () Get Max retry.
int	<a href="#">getMaxTotalConnections</a> () Returns the maximum number of active connections.

int	<a href="#"><code>getRetry()</code></a> Get Max retry.
long	<a href="#"><code>getRetryDelay()</code></a> Delay between two retries.
String	<a href="#"><code>getTrustStorePath()</code></a> Returns the trust store path.
String	<a href="#"><code>getTrustStorePwd()</code></a> Returns the trust store password.
String	<a href="#"><code>getTrustStoreType()</code></a> Returns the trust store type.
boolean	<a href="#"><code>isDisabledSSL()</code></a> Returns true if the SSL is disabled otherwise false.
void	<a href="#"><code>start()</code></a>
void	<a href="#"><code>stop()</code></a>

#### 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()
```

---

(continued from last page)

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	<a href="#">HttpMethodCall</a> ( <a href="#">HttpDOIClientHelper</a> helper, String method, String requestUri, boolean hasEntity) Constructor.
--------	---

### Method Summary

org.apache.http.client.methods.HttpUriRequest	<a href="#">getHttpRequest()</a> Returns the HTTP request.
org.apache.http.HttpResponse	<a href="#">getHttpResponse()</a> Returns the HTTP response.
String	<a href="#">getReasonPhrase()</a>
java.nio.channels.WritableByteChannel	<a href="#">getRequestEntityChannel()</a> Not used.
OutputStream	<a href="#">getRequestEntityStream()</a> Not used.
OutputStream	<a href="#">getRequestHeadStream()</a> Not used.
java.nio.channels.ReadableByteChannel	<a href="#">getResponseEntityChannel</a> (long size) Not used.
InputStream	<a href="#">getResponseEntityStream</a> (long size)
org.restlet.util.Series	<a href="#">getResponseHeaders()</a>
String	<a href="#">getServerAddress()</a>
int	<a href="#">getStatusCode()</a>

org.restlet.data.Status	<a href="#">sendRequest</a> (org.restlet.Request request)
void	<a href="#">sendRequest</a> (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()
```

---

(continued from last page)

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:**

null

---

(continued from last page)

## **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	<a href="#">WadlCnesRepresentation</a> (ApplicationInfo application) Constructs a new Wadl representation based on a new XSLT.
--------	---

## Method Summary

org.restlet.representation.Representation	<a href="#">getHtmlRepresentation</a> () 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

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