

DOI-Server

Jean-Christophe Malapert

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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 - . _ : / +

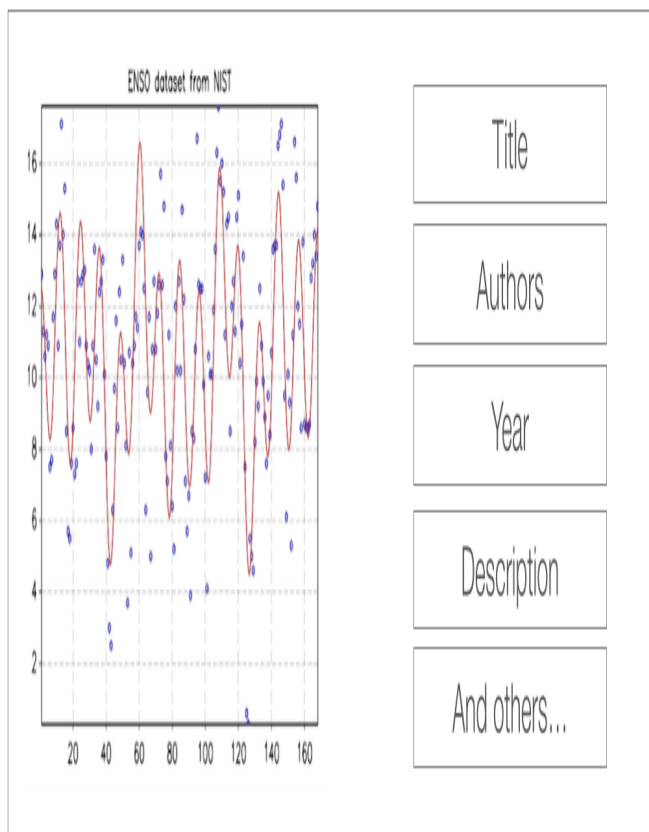
This document provides the description of the DOI server. it aims is to provide a common service to an organization so that each project of this organization can manage its own DOI according to their own access rights. The access rights are defined by the DOI server whereas the real creation of a DOI 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>



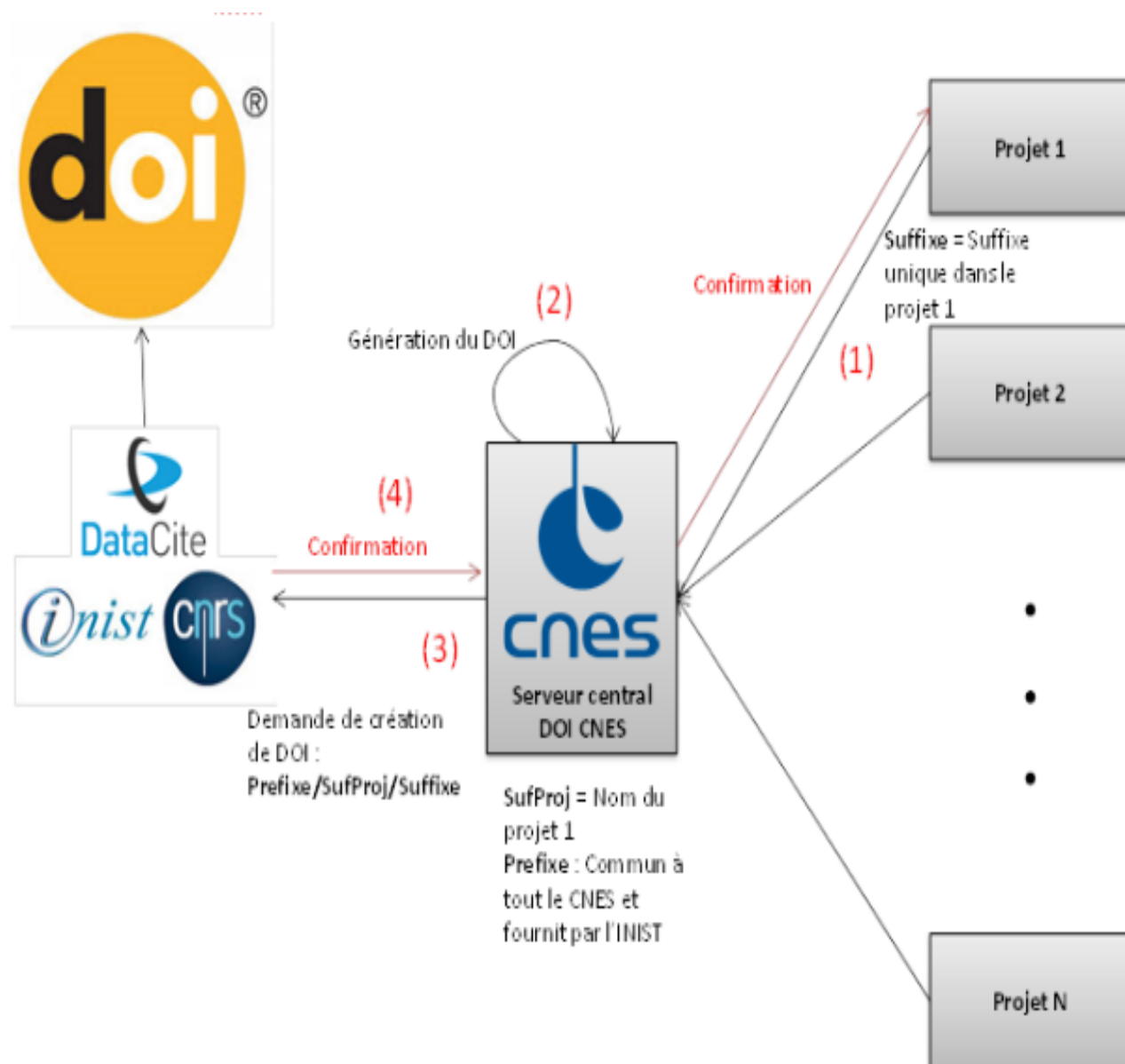
Unique



Persistent



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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.

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

Field Summary

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

Constructor Summary

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

Method Summary

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

org.restlet.security. ChallengeAuthenticator	<code>createTokenAuthenticator()</code> Creates an authentication by token.
<code>DoiSettings</code>	<code>getConfig()</code> Returns the configuration of the DOI server.
org.apache.logging.log4j.Logger	<code>getLog()</code> Returns the logger.
<code>AbstractTokenDBHelper</code>	<code>getTokenDB()</code> Returns the token database.
void	<code>sendAlertWhenDataCiteFailed(Exception exception)</code> 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

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)

```

Author:

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

See Also:

[Datacite status page](#), [Datacite stats page](#), [Creating a project suffix for DOI](#), [Creating a token and getting information about a token](#)

Field Summary

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

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

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

[DEFAULT_CORS_CREDENTIALS](#), [DEFAULT_CORS_ORIGIN](#)

Constructor Summary

public	AdminApplication() Constructor.
--------	--

Method Summary

org.restlet.Restlet	createInboundRoot() Creates a router for the AdminApplication.
org.apache.logging.log4j.Logger	getLog() Returns the logger.

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

[createAuthenticator](#), [createAuthenticatorLoginBased](#), [createCoreService](#), [createHtmlRepresentation](#), [createTokenAuthenticator](#), [getConfig](#), [getLog](#), [getTokenDB](#), [sendAlertWhenDataCiteFailed](#)

Methods inherited from class [org.restlet.ext.wadl.WadlApplication](#)

[attachToComponent](#), [attachToHost](#), [canDescribe](#), [createFinder](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [getApplicationInfo](#), [getBaseRef](#), [getPreferredWadlVariant](#), [getRouter](#), [getWadlVariants](#), [handle](#), [isAutoDescribing](#), [setAutoDescribing](#), [setBaseRef](#), [wadlRepresent](#), [wadlRepresent](#)

Methods inherited from class [org.restlet.Application](#)

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

Methods inherited from class `org.restlet.Restlet`

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Fields

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()
```

Constructor.

Methods

(continued from last page)

createInboundRoot

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

Creates a router for the AdminApplication. This router routes :

- the web resources for the website with no authentication
- the REST resources for the system administration with authentication/authorization

The web resources are attached by default to the AdminApplication where as the REST resources for the system administration are attached with the [ADMIN_URI](#)

Returns:

Router

See Also:

the router that contains the the web resources
the router that contains the REST resources
[the authentication mechanism](#)
the authorization mechanism

getLog

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

Returns the logger.

Returns:

the logger

fr.cnes.doi.application Class DoiCrossCiteApplication

```

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

```

All Implemented Interfaces:

org.restlet.Uniform

```

public final class DoiCrossCiteApplication
extends AbstractApplication

```

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

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

DataCite also looks to community practices that provide data citation guidance. The Joint Declaration of Data Citation Principles is a set of guiding principles for data within scholarly literature, another dataset, or any other research object (Data Citation Synthesis Group 2014).

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

Security

No authentication / no autorisation

Routing

root
|
|__ style
|__ language
|__ format

Author:

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

See Also:

[Making a citation](#)

Field Summary

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

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

[DEFAULT_CORS_CREDENTIALS](#), [DEFAULT_CORS_ORIGIN](#)

Constructor Summary

public	DoiCrossCiteApplication() Constructs the application.
--------	--

Method Summary

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

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

[createAuthenticator](#), [createAuthenticatorLoginBased](#), [createCoreService](#), [createHtmlRepresentation](#), [createTokenAuthenticator](#), [getConfig](#), [getLog](#), [getTokenDB](#), [sendAlertWhenDataCiteFailed](#)

Methods inherited from class [org.restlet.ext.wadl.WadlApplication](#)

[attachToComponent](#), [attachToHost](#), [canDescribe](#), [createFinder](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [getApplicationInfo](#), [getBaseRef](#), [getPreferredWadlVariant](#), [getRouter](#), [getWadlVariants](#), [handle](#), [isAutoDescribing](#), [setAutoDescribing](#), [setBaseRef](#), [wadlRepresent](#), [wadlRepresent](#)

Methods inherited from class [org.restlet.Application](#)

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

Methods inherited from class org.restlet.Restlet

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface org.restlet.Uniform

```
handle
```

Fields

STYLES_URI

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

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

LANGUAGE_URI

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

URI #LANGUAGE_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**

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Constructors

DoiCrossCiteApplication

```
public DoiCrossCiteApplication()
```

Constructs the application.

Methods

createInboundRoot

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

Creates router the DOICrossCiteApplication. This routes routes the following resources:

- [STYLES_URI](#) to access to the different styles for a citation
- [LANGUAGE_URI](#) to access to the different languages for a citation
- [FORMAT_URI](#) to access to the formatted citation

Returns:

router

getClient

```
public ClientCrossCiteCitation getClient()
```

Returns the client to query cross cite.

Returns:

the client

getLog

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

Returns the logger.

Returns:

the logger

fr.cnes.doi.application Class DoiMdsApplication

```

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

```

All Implemented Interfaces:

org.restlet.Uniform

```

public final class DoiMdsApplication
extends AbstractApplication

```

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

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

- [authenticator](#) by login/password
- [authenticator](#) by [token](#)

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

Security

The authentication is done by the following pipeline:

```

|Method authorization|-->|Authentication login/pwd|-->|Authentication token|
Method authorization : Only GET method does not need an authorization

```

Routing

```

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

```

Author:

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

See Also:

[the resources related to this application](#), [DOI Handbook](#), [API Documentation](#), [List and create DOI](#), [Handle a DOI](#), [Create metadata](#), [Handle DOI metadata](#), [Handle media related to metadata](#)

Nested Class Summary

class	DoiMdsApplication.API_MDS
	DoiMdsApplication.API_MDS

class	DoiMdsApplication.SecurityPostProcessingFilter DoiMdsApplication.SecurityPostProcessingFilter
-------	--

Field Summary

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

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

[DEFAULT_CORS_CREDENTIALS](#), [DEFAULT_CORS_ORIGIN](#)

Constructor Summary

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

Method Summary

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

org.apache.logging.log4j.Logger	getLog() Returns the logger.
AbstractTokenDBHelper	getTokenDB() Returns the token database.

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

[createAuthenticator](#), [createAuthenticatorLoginBased](#), [createCoreService](#), [createHtmlRepresentation](#), [createTokenAuthenticator](#), [getConfig](#), [getLog](#), [getTokenDB](#), [sendAlertWhenDataCiteFailed](#)

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

[attachToComponent](#), [attachToHost](#), [canDescribe](#), [createFinder](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [getApplicationInfo](#), [getBaseRef](#), [getPreferredWadlVariant](#), [getRouter](#), [getWadlVariants](#), [handle](#), [isAutoDescribing](#), [setAutoDescribing](#), [setBaseRef](#), [wadlRepresent](#), [wadlRepresent](#)

Methods inherited from class org.restlet.Application

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

Methods inherited from class org.restlet.Restlet

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

Methods inherited from class java.lang.Object

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

Methods inherited from interface org.restlet.Uniform

[handle](#)

Fields

DOI_TEMPLATE

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

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

DOI_URI

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

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

DOI_NAME_URI

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

URI to handle a DOI : #DOI_NAME_URI.
Constant value: **/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()
```

Creates the Digital Object Identifier server application.

Throws:

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

Methods

createInboundRoot

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

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

Returns:

Router

(continued from last page)

See Also:

the router that contains the Mds resources
[the authentication mechanism by login/password](#)
[the authentication mechanism by token](#)
the method authorization mechanism

getDataCentrePrefix

```
public String getDataCentrePrefix()
```

Returns the DOI prefix.

Returns:

the DOI prefix

getClient

```
public ClientMDS getClient()
```

Returns the client.

Returns:

the client

getClientSearch

```
public ClientSearchDataCite getClientSearch()
```

Returns the client.

Returns:

the client

getTokenDB

```
public AbstractTokenDBHelper getTokenDB()
```

Returns the token database.

Returns:

the token database

getLog

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

Returns the logger.

Returns:

the logger

getApplicationInfo

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

Method to describe application in the WADL.

Parameters:

(continued from last page)

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 oath but non authorized by the service because the user's role is not related to any projects

Fields inherited from class org.restlet.routing.Filter

CONTINUE, SKIP, STOP

Constructor Summary

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

Method Summary

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

Methods inherited from class org.restlet.routing.Filter

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

Methods inherited from class org.restlet.Restlet

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface org.restlet.Uniform

handle

Constructors

SecurityPostProcessingFilter

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

Constructor

Parameters:

context - context

next - gard

Methods

afterHandle

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

Fixed problem with Jetty response.

Parameters:

request - request

response - response

fr.cnes.doi.application Class DoiMdsApplication.API_MDS

```

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

All Implemented Interfaces:

Serializable, Comparable

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

API related only to the code in this webservice. Other codes can be returned by the [ClientMDS](#)

Field Summary

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

Method Summary

String	getShortMessage () Returns the short message.
--------	---

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

Methods inherited from class java.lang.Enum

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Comparable

compareTo

Fields

CREATE_METADATA

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

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

SECURITY_USER_NOT_IN_SELECTED_ROLE

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

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

SECURITY_USER_NO_ROLE

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

Fail to authorize the user. It happens when a client is 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.
- a [client](#) to request DataCite service to search DOI.

fr.cnes.doi.client Class BaseClient

java.lang.Object

↳ **fr.cnes.doi.client.BaseClient**

Direct Known Subclasses:

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

public class **BaseClient**
extends Object

Base client

Author:

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

Field Summary

public static final	DATACITE MOCKSERVER_PORT Port of the Datacite mockserver Value: 1080
---------------------	---

Constructor Summary

public	BaseClient (String uri) Constructor.
--------	---

Method Summary

org.restlet.resource. ClientResource	getClient () Returns the client.
---	---

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

Methods inherited from class java.lang.Object

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

Fields

DATACITE MOCKSERVER_PORT

public static final int **DATACITE MOCKSERVER_PORT**

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

Constructors

(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.

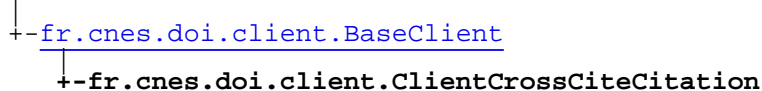
Returns:

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	ClientCrossCiteCitation.Context ClientCrossCiteCitation.Context
-------	--

Field Summary

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

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

[DATACITE MOCKSERVER_PORT](#)

Constructor Summary

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

Method Summary

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

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

[getClient](#), [getLog](#)

Methods inherited from class [java.lang.Object](#)

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

Fields

CROSS_CITE_URL

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

Service end point #CROSS_CITE_URL.

Constant value: **http://citation.crosscite.org**

CROSS_CITE MOCK_URL

```
public static final java.lang.String CROSS_CITE MOCK_URL
```

Service end point #CROSS_CITE MOCK_URL.

Constant value: **http://localhost:1080**

STYLE_URI

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

URI to get styles #STYLE_URI.

Constant value: **styles**

LOCALE_URI

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

URI to get locales #LOCALE_URI.

Constant value: **locales**

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

Method Summary

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

Methods inherited from class java.lang.Enum

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `java.lang.Comparable`

```
compareTo
```

Fields

DEV

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

Development context. This context uses the [ClientCrossCiteCitation.CROSS_CITE MOCK_URL](#) end point with a log level sets to OFF.

POST_DEV

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

Post development context. This context uses the [ClientCrossCiteCitation.CROSS_CITE_URL](#) end point with a log level sets to ALL.

PRE_PROD

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

Pre production context. This context uses the [ClientCrossCiteCitation.CROSS_CITE_URL](#) end point with a log level sets to FINE.

PROD

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

Production context. This context uses the [ClientCrossCiteCitation.CROSS_CITE_URL](#) end point with a log level sets to INFO.

Methods

values

```
public static ClientCrossCiteCitation.Context\[\] values()
```

valueOf

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

getLevelLog

```
public Level getLevelLog()
```

Returns the log level.

Returns:

the log level

getCrossCiteUrl

```
public String getCrossCiteUrl()
```

Returns the service end point.

Returns:

the service end point

setLevelLog

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

Sets the level log for a given context

Parameters:

context - the context

levelLog - the level log

setCrossCiteUrl

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

Sets the Cross Cite URL for a given context

Parameters:

context - the context

crossCiteUrl - Cross Cite URL

fr.cnes.doi.client Class ClientLandingPage

```
java.lang.Object
├--fr.cnes.doi.client.BaseClient
│   └--fr.cnes.doi.client.ClientLandingPage
```

```
public class ClientLandingPage
extends BaseClient
```

Checks the status of the landing page.

Author:

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

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

[DATACITE MOCKSERVER_PORT](#)

Constructor Summary

public	ClientLandingPage (List dois) Constructor
--------	--

Method Summary

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

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

[getClient](#), [getLog](#)

Methods inherited from class `java.lang.Object`

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

Constructors

ClientLandingPage

```
public ClientLandingPage(List dois)
```

Constructor

(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)

Nested Class Summary

class	ClientMDS.Context ClientMDS.Context
class	ClientMDS.DATA_CITE_API_RESPONSE ClientMDS.DATA_CITE_API_RESPONSE

Field Summary

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

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

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

[DATAcite MOCKSERVER_PORT](#)

Constructor Summary

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

Method Summary

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

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

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

[getClient](#), [getLog](#)

Methods inherited from class java.lang.Object

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

Fields

DATA_CITE_URL

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

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

DATA_CITE MOCK_URL

```
public static final java.lang.String DATA_CITE MOCK_URL
```

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

DATA_CITE_TEST_URL

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

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

DOI_RESOURCE

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

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

METADATA_RESOURCE

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

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

MEDIA_RESOURCE

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

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

TEST_MODE

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

Test mode sets to true.

TEST_DOI_PREFIX

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

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

POST_DOI

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

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

POST_URL

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

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

SCHEMA_DATACITE

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

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

Constructors

ClientMDS

```
public ClientMDS(ClientMDS.Context context)
```

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

It is important to understand that the Handle System (the technical infrastructure for DOIs) is a distributed network system. The consequence of this manifests is its inherent latency. For example, DOIs have TTL (time to live) defaulted to 24 hours, so your changes will be visible to the resolution infrastructure only when the TTL expires. Also, if you create a DOI and then immediately try to update its URL, you might get the error message HANDLE NOT EXISTS. This is because it takes some time for the system to register a handle for a DOI. Each API call can have optional query 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

(continued from last page)

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

checkIfAllCharsAreValid

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

(continued from last page)

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

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

Parameters:

test - DOI name to test

Throws:

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

getDoi

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

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

Parameters:

doiName - DOI name

Returns:

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

Throws:

[ClientMdsException](#) - - if an error happens

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

See Also:

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

createDoi

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

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

Parameters:

form - A form with the following attributes doi and url

(continued from last page)

Returns:

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

Throws:

[ClientMdsException](#) - - if an error happens

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

See Also:

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

getMetadataAsObject

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

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

Parameters:

doiName - DOI name

Returns:

XML representing a dataset

Throws:

[ClientMdsException](#) - - if an error happens

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

getMetadata

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

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

Parameters:

doiName - DOI name

Returns:

the metadata as XML

Throws:

(continued from last page)

[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"](https://mds.datacite.org/static/apidoc#tocAnchor-15)

createMetadata

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

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

Parameters:

entity - A valid XML

Returns:

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

Throws:

[ClientMdsException](#) - - if an error happens

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

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

createMetadata

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

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

Parameters:

entity - Metadata

Returns:

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

Throws:

(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)

parseMetadata

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

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

Parameters:

entity - metadata

Returns:

the Resource object from DataCite

Throws:

ValidationException - When validation failed

deleteMetadataDoiAsObject

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

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

Parameters:

doiName - DOI name

Returns:

XML representing a dataset

Throws:[ClientMdsException](#) - - if an error happens

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

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

deleteMetadata

```
public org.restlet.representation.Representation deleteMetadata(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:

the deleted metadata

Throws:

[ClientMdsException](#) - - if an error happens

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

See Also:

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

getMedia

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

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

Parameters:

doiName - DOI name

Returns:

list of pairs of media type and URLs

Throws:

[ClientMdsException](#) - - if an error happens

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

See Also:

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

createMedia

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

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

Parameters:

doiName - DOI identifier

(continued from last page)

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

Method Summary

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

<code>org.restlet.data.Status</code>	<code>getStatus()</code> Returns the status
<code>static ClientMDS.DATAcite_API_RESPONSE</code>	<code>valueOf(String name)</code>
<code>static ClientMDS.DATAcite_API_RESPONSE[]</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

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

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

Methods inherited from class `java.lang.Enum`

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `java.lang.Comparable`

`compareTo`

Fields

DEV

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

Development context.

POST_DEV

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

Post development context.

PRE_PROD

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

Pre production context.

PROD

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

Production context.

Methods

values

```
public static ClientMDS.Context\[\] values()
```

valueOf

```
public static ClientMDS.Context valueOf(String name)
```

(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

fr.cnes.doi.client Class ClientSearchDataCite

```

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

public class **ClientSearchDataCite**
extends [BaseClient](#)

Class to search DOI from metadata

Author:

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

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

[DATACITE MOCKSERVER_PORT](#)

Constructor Summary

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

Method Summary

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

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

[getClient](#), [getLog](#)

Methods inherited from class java.lang.Object

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

Constructors

ClientSearchDataCite

```
public ClientSearchDataCite()
```


(continued from last page)

Constructor.

Throws:

[fr.cnes.doi.exception.ClienSearchDataCiteException](#) - when an error happens

ClientSearchDataCite

```
public ClientSearchDataCite(String doiPrefix)
```

Constructor.

Parameters:

doiPrefix - DOI prefix

Throws:

[ClienSearchDataCiteException](#) - when an error happens

Methods

computeListDOI

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

Computes recursively the response.

Parameters:

start - page number

doiPrefix - DOI prefix

Throws:

[DoiRuntimeException](#) - - if the status of the query is not 200

java.io.IOException - - if an error happens in the stream

getDois

```
public List getDois()
```

Returns the search result.

Returns:

the search result

getDois

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

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

Parameters:

idProject - project ID

Returns:

the search result

Package

fr.cnes.doi.db

Provides interfaces to request external databases.

Three databases are needed :

- One to access to the [project database](#)
- Another one to access to the [token database](#)
- The last one to access to the [user/role database](#)

Project database

The project database stores the project name and its identifier. The identifier is used in the DOI name to assure the unique name through the organization. The DOI is built like this:

doi://prefix organization assigned by DataCite/suffix project assign by DOI server to a project/free identifier by the project

Token database

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

User/role database

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

fr.cnes.doi.db

Class AbstractProjectSuffixDBHelper

```

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

```

Direct Known Subclasses:

[AbstractProjectSuffixPluginHelper](#)

public abstract class **AbstractProjectSuffixDBHelper**
extends Observable

Interface for handling the project suffix database.

Author:

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

Field Summary

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

Constructor Summary

public	AbstractProjectSuffixDBHelper()
--------	---

Method Summary

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

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

Method Summary

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

Methods inherited from class java.util.Observable

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

Methods inherited from class java.lang.Object

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

Constructors

AbstractTokenDBHelper

public **AbstractTokenDBHelper()**

Methods

addToken

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

Adds a token in the database

Parameters:

jwt - a token

Returns:

True when the token is added to the database otherwise False

deleteToken

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

Deletes a token from the database.

Parameters:

jwt - the token

Returns:

True when the token is deletes otherwise false

isExist

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

Tests if the token exists in the database.

Parameters:

jwt - the token

Returns:

True when the token exists in the database otherwise False

getTokens

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

Return the token list from database.

Returns:

the list of tokens

Throws:

[fr.cnes.doi.exception.DOIDbException](#) - when an error occurs

fr.cnes.doi.db

Class AbstractUserRoleDBHelper

```

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

```

Direct Known Subclasses:

[AbstractUserRolePluginHelper](#)

public abstract class **AbstractUserRoleDBHelper**
 extends **Observable**

Interface for handling users and role database. This database is used to authenticate the requests.

Author:

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

Field Summary

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

Constructor Summary

public	AbstractUserRoleDBHelper()
--------	--

Method Summary

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

abstract boolean	<code>isUserExist</code> (String username) Tests if the user exists.
abstract boolean	<code>removeDOIUser</code> (String username) Removes the user
abstract boolean	<code>removeUserToRole</code> (String user, int role) Removes an user from a specific role.
abstract boolean	<code>setUserToAdminGroup</code> (String admin) Add user to Administrators group
abstract boolean	<code>unsetUserFromAdminGroup</code> (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	authenticateUser (String login, String password) Authenticates an user via the authentication service.
abstract String	getDOIAdmin () Returns the user from the authentication access, which will be the administrator of DOI server.
abstract List	getDOIProjectMembers () Returns the authentication members.

Methods

getDOIProjectMembers

public abstract List **getDOIProjectMembers**()
throws [AuthenticationAccessException](#)

Returns the authentication members.

Returns:

the authentication members

Throws:

[AuthenticationAccessException](#) - When a problem occurs

authenticateUser

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

Authenticates an user via the authentication service.

Parameters:

login - login
password - password

Returns:

True when the user is authenticated otherwise False.

getDOIAdmin

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

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

Returns:

the administrator

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	MyMemoryRealm() Constructor.
--------	---

Method Summary

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

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

Method Summary

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

Methods inherited from class java.lang.Object

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

Constructors

AuthSystemUser

```
public AuthSystemUser()
```

Methods

getUsername

```
public String getUsername()
```

Returns the username.

Returns:

the username

setUsername

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

Sets the username

Parameters:

username - the username

getEmail

```
public String getEmail()
```

Returns the email.

Returns:

the email

setEmail

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

Sets the email.

Parameters:

email - the email

getFullname

```
public String getFullname()
```

Returns the full name.

Returns:

the full name

setFullname

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

Sets the full name.

Parameters:

fullname - the full name

(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	DOIProject()
--------	------------------------------

Method Summary

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

Methods inherited from class java.lang.Object

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

Constructors

DOIProject

public **DOIProject()**

Methods

(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	DOIUser()
--------	---------------------------

Method Summary

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

Methods inherited from class java.lang.Object

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

Constructors

(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 $\tilde{\wedge}$ 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	AuthenticationAccessException (String message, Exception ex)
	Constructor

Methods inherited from class java.lang.Throwable

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

Methods inherited from class java.lang.Object

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

Constructors

AuthenticationAccessException

```

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

Constructor

Parameters:

message - Message explaining the exception
ex - exception

fr.cnes.doi.exception Class ClienSearchDataCiteException

```

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

All Implemented Interfaces:

Serializable

```

public class ClienSearchDataCiteException
extends Exception
  
```

Exception for Client Cross Cite.

Author:

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

Field Summary

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

Constructor Summary

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

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

Method Summary

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

Methods inherited from class java.lang.Throwable

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

Methods inherited from class java.lang.Object

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

Fields

SUCCESS_CREATED

```
public static final int SUCCESS_CREATED
```

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

SUCCESS_OK

```
public static final int SUCCESS_OK
```

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

SUCCESS_NO_CONTENT

```
public static final int SUCCESS_NO_CONTENT
```

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

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

Method Summary

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

Methods inherited from class java.lang.Throwable

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

Methods inherited from class java.lang.Object

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

Constructors

ClientCrossCiteException

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

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

Parameters:

status - HTTP status

ClientCrossCiteException

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

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

Parameters:

status - HTTP message

message - message

ClientCrossCiteException

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

Constructs a new exception with the specified detail cause.

Parameters:

status - HTTP status

cause - cause

ClientCrossCiteException

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

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

Parameters:

status - HTTP status

message - message

cause - cause

Methods

getStatus

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

Returns the status.

Returns:

the status

getDetailMessage

```
public String getDetailMessage()
```

Returns detail message;

Returns:

the detail message

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

public static final	<u>SUCCESS_CREATED</u> Operation successful. Value: 201
public static final	<u>SUCCESS_NO_CONTENT</u> no DOIs founds. Value: 204
public static final	<u>SUCCESS_OK</u> Operation successful. Value: 200

Constructor Summary

public	<u>ClientMdsException</u> (org.restlet.data.Status status) Constructs a new exception with HTTP status as its detail message.
public	<u>ClientMdsException</u> (org.restlet.data.Status status, String message) Constructs a new exception with the specified HTTP status and detail message.
public	<u>ClientMdsException</u> (org.restlet.data.Status status, Throwable cause) Constructs a new exception with the specified detail cause.
public	<u>ClientMdsException</u> (org.restlet.data.Status status, String message, Throwable cause) Constructs a new exception with the specified detail HTTP status, message and cause.
public	<u>ClientMdsException</u> (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	<u>getDetailMessage</u> () Returns detail message;
org.restlet.data.Status	<u>getStatus</u> () 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	DOIDbException (String message, java.sql.SQLException ex) Constructor.
--------	---

Methods inherited from class java.lang.Throwable

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

Methods inherited from class java.lang.Object

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

Constructors

DOIDbException

```

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

Constructor.

Parameters:

message - message about the exception
ex - SQL exception

fr.cnes.doi.exception Class 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	DoRuntimeException() Constructs a new runtime exception with null as its detail message.
public	DoRuntimeException(String message, Throwable cause) Constructs a new runtime exception with the specified detail message and cause.
public	DoRuntimeException(String message) Constructs a new runtime exception with the specified detail message.
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).

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

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

Methods inherited from class org.restlet.resource.ResourceException

getStatus, toString

Methods inherited from class java.lang.Throwable

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

Methods inherited from class java.lang.Object

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

Constructors

DoiServerException

```
public DoiServerException(org.restlet.Application app,
    DoiMdsApplication.API\_MDS error)
```

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

Parameters:

app - MDS application
error - MDS error

DoiServerException

```
public DoiServerException(org.restlet.Application app,
    DoiMdsApplication.API\_MDS error,
    Exception ex)
```

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

Parameters:

app - MDS application
error - MDS error
ex - Exception

DoiServerException

```
public DoiServerException(org.restlet.Application app,
    DoiMdsApplication.API\_MDS error,
    String description)
```

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

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

Method Summary

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

Methods inherited from class java.lang.Throwable

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

Methods inherited from class java.lang.Object

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

Constructors

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

Methods inherited from class java.lang.Throwable

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

Methods inherited from class java.lang.Object

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

Constructors

ValidationMetadataException

```
public ValidationMetadataException()
```


(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.Filter	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:

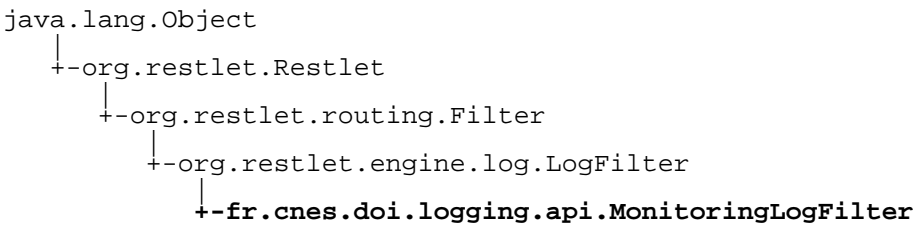
context - context

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	MonitoringLogFilter (org.restlet.Context context, DoiMonitoring doiMonitoring, org.restlet.service.LogService logService) Constructs a filter that filters applications to monitor

Method Summary	
void	afterHandle (org.restlet.Request request, org.restlet.Response response) Allows filtering after processing by the next Restlet.

Methods inherited from class org.restlet.engine.log.LogFilter	
	afterHandle, beforeHandle

Methods inherited from class org.restlet.routing.Filter	
	afterHandle, beforeHandle, doHandle, getNext, handle, hasNext, setNext, setNext, start, stop

Methods inherited from class org.restlet.Restlet	
--	--

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Constructors

MonitoringLogFilter

```
public MonitoringLogFilter(org.restlet.Context context,
                           DoiMonitoring doiMonitoring,
                           org.restlet.service.LogService logService)
```

Constructs a filter that filters applications to monitor

Parameters:

context - the Context
doiMonitoring - DOI monitoring
logService - the `org.restlet.service.LogService`

Methods

afterHandle

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

Allows filtering after processing by the next Restlet. Does nothing by default.

Parameters:

request - request
response - response

Package

fr.cnes.doi.logging.business

Provides Handler for handle application logs.

fr.cnes.doi.logging.business

Class JsonMessage

java.lang.Object

└-fr.cnes.doi.logging.business.JsonMessage

All Implemented Interfaces:

org.apache.logging.log4j.message.Message

public class **JsonMessage**
extends Object
implements org.apache.logging.log4j.message.Message

Converts an Object to a JSON String.

Constructor Summary

public	JsonMessage (Object object) Constructs a JsonMessage.
--------	--

Method Summary

String	getFormat ()
String	getFormattedMessage ()
Object[]	getParameters ()
Throwable	getThrowable ()

Methods inherited from class java.lang.Object

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

Methods inherited from interface org.apache.logging.log4j.message.Message

getFormat, getFormattedMessage, getParameters, getThrowable

Constructors

JsonMessage

public **JsonMessage**(Object object)

Constructs a JsonMessage.

Parameters:

object - the Object to serialize.

Methods

getFormattedMessage

```
public String getFormattedMessage()
```

getFormat

```
public String getFormat()
```

getParameters

```
public Object[] getParameters()
```

getThrowable

```
public Throwable getThrowable()
```

Package

fr.cnes.doi.logging.security

Provides a filter to log security event such as login to the administration page.

fr.cnes.doi.logging.security Class DoiSecurityLogFilter

```

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

All Implemented Interfaces:

org.restlet.Uniform

```

public class DoiSecurityLogFilter
extends org.restlet.routing.Filter
  
```

Log filter for DOI security

Author:

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

Fields inherited from class org.restlet.routing.Filter

CONTINUE, SKIP, STOP

Constructor Summary

public	DoiSecurityLogFilter() Instantiates a new sitools log filter.
--------	--

Method Summary

void	afterHandle (org.restlet.Request request, org.restlet.Response response) Allows filtering after processing by the next Restlet.
------	--

Methods inherited from class org.restlet.routing.Filter

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

Methods inherited from class org.restlet.Restlet

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface org.restlet.Uniform

handle

Constructors

DoiSecurityLogFilter

```
public DoiSecurityLogFilter()
```

Instantiates a new sitools log filter.

Methods

afterHandle

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

Allows filtering after processing by the next Restlet. Does nothing by default.

Parameters:

request - request
response - response

See Also:

`Filter.afterHandle(org.restlet.Request, org.restlet.Response)`

Package

fr.cnes.doi.plugin

Provides classes to loads a plugin in the classpath.

fr.cnes.doi.plugin

Class AbstractAuthenticationPluginHelper

java.lang.Object

↳ fr.cnes.doi.plugin.AbstractAuthenticationPluginHelper

All Implemented Interfaces:

[PluginConfiguration](#), [PluginMetadata](#), [IAuthenticationDBHelper](#)

Direct Known Subclasses:

[DefaultLDAPImpl](#)

public abstract class **AbstractAuthenticationPluginHelper**

extends Object

implements [IAuthenticationDBHelper](#), [PluginMetadata](#), [PluginConfiguration](#)

Author:

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

Constructor Summary

protected	AbstractAuthenticationPluginHelper() Empty constructor.
-----------	--

Methods inherited from class java.lang.Object

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

Methods inherited from interface [fr.cnes.doi.db.IAuthenticationDBHelper](#)

[authenticateUser](#), [getDOIAdmin](#), [getDOIProjectMembers](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginMetadata](#)

[getAuthor](#), [getDescription](#), [getLicense](#), [getName](#), [getOwner](#), [getVersion](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginConfiguration](#)

[initConnection](#), [isConfigured](#), [release](#), [setConfiguration](#), [validate](#)

Constructors

AbstractAuthenticationPluginHelper

protected **AbstractAuthenticationPluginHelper()**

Empty constructor.

fr.cnes.doi.plugin

Class AbstractProjectSuffixPluginHelper

```

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

All Implemented Interfaces:

[PluginConfiguration](#), [PluginMetadata](#)

Direct Known Subclasses:

[DefaultProjectSuffixImpl](#)

public abstract class **AbstractProjectSuffixPluginHelper**

extends [AbstractProjectSuffixDBHelper](#)

implements [PluginMetadata](#), [PluginConfiguration](#)

Author:

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

Fields inherited from class [fr.cnes.doi.db.AbstractProjectSuffixDBHelper](#)

[ADD_RECORD](#), [DELETE_RECORD](#), [RENAME_RECORD](#)

Constructor Summary

protected	AbstractProjectSuffixPluginHelper() Empty constructor.
-----------	---

Methods inherited from class [fr.cnes.doi.db.AbstractProjectSuffixDBHelper](#)

[addProjectSuffix](#), [deleteProject](#), [getAllDOIUsersForProject](#), [getIDFrom](#), [getProjectFrom](#), [getProjects](#), [getProjectsFromUser](#), [isExistID](#), [isExistProjectName](#), [renameProject](#)

Methods inherited from class [java.util.Observable](#)

[addObserver](#), [clearChanged](#), [countObservers](#), [deleteObserver](#), [deleteObservers](#), [hasChanged](#), [notifyObservers](#), [notifyObservers](#), [setChanged](#)

Methods inherited from class [java.lang.Object](#)

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginMetadata](#)

[getAuthor](#), [getDescription](#), [getLicense](#), [getName](#), [getOwner](#), [getVersion](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginConfiguration](#)

[initConnection](#), [isConfigured](#), [release](#), [setConfiguration](#), [validate](#)

Constructors

AbstractProjectSuffixPluginHelper

`protected AbstractProjectSuffixPluginHelper()`

Empty constructor.

fr.cnes.doi.plugin Class AbstractTokenDBPluginHelper

```

java.lang.Object
  |
  +- java.util.Observable
        |
        +- fr.cnes.doi.db.AbstractTokenDBHelper
              |
              +- fr.cnes.doi.plugin.AbstractTokenDBPluginHelper

```

All Implemented Interfaces:

[PluginConfiguration](#), [PluginMetadata](#)

Direct Known Subclasses:

[DefaultTokenImpl](#)

public abstract class **AbstractTokenDBPluginHelper**

extends [AbstractTokenDBHelper](#)

implements [PluginMetadata](#), [PluginConfiguration](#)

Author:

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

Constructor Summary

protected	AbstractTokenDBPluginHelper () Empty constructor.
-----------	---

Methods inherited from class [fr.cnes.doi.db.AbstractTokenDBHelper](#)

[addToken](#), [deleteToken](#), [getTokens](#), [isExist](#)

Methods inherited from class java.util.Observable

[addObserver](#), [clearChanged](#), [countObservers](#), [deleteObserver](#), [deleteObservers](#), [hasChanged](#), [notifyObservers](#), [notifyObservers](#), [setChanged](#)

Methods inherited from class java.lang.Object

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginMetadata](#)

[getAuthor](#), [getDescription](#), [getLicense](#), [getName](#), [getOwner](#), [getVersion](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginConfiguration](#)

[initConnection](#), [isConfigured](#), [release](#), [setConfiguration](#), [validate](#)

Constructors

(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	AbstractUserRolePluginHelper() Empty constructor.
-----------	--

Methods inherited from class [fr.cnes.doi.db.AbstractUserRoleDBHelper](#)

[addDOIUser](#), [addDOIUser](#), [addUserToRole](#), [getRealm](#), [getUsers](#), [getUsersFromRole](#),
[isUserExist](#), [removeDOIUser](#), [removeUserToRole](#), [setUserToAdminGroup](#),
[unsetUserFromAdminGroup](#)

Methods inherited from class [java.util.Observable](#)

[addObserver](#), [clearChanged](#), [countObservers](#), [deleteObserver](#), [deleteObservers](#),
[hasChanged](#), [notifyObservers](#), [notifyObservers](#), [setChanged](#)

Methods inherited from class [java.lang.Object](#)

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#),
[wait](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginMetadata](#)

[getAuthor](#), [getDescription](#), [getLicense](#), [getName](#), [getOwner](#), [getVersion](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginConfiguration](#)

[initConnection](#), [isConfigured](#), [release](#), [setConfiguration](#), [validate](#)

Constructors

AbstractUserRolePluginHelper

protected **AbstractUserRolePluginHelper**()

Empty constructor.

fr.cnes.doi.plugin Interface PluginConfiguration

All Known Implementing Classes:

[AbstractTokenDBPluginHelper](#), [AbstractUserRolePluginHelper](#), [AbstractAuthenticationPluginHelper](#),
[AbstractProjectSuffixPluginHelper](#)

public interface **PluginConfiguration**
extends

Provides validation for plugin configuration.

Author:

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

Method Summary

abstract void	initConnection() Init the connection
abstract boolean	isConfigured() Checks if the plugin is already configured
abstract void	release() Release the plugin.
abstract void	setConfiguration (Object configuration) Sets the configuration.
abstract StringBuilder	validate() Validates the parameters in the configuration file.

Methods

validate

public abstract StringBuilder **validate()**

Validates the parameters in the configuration file.

Returns:

the error messages.

setConfiguration

public abstract void **setConfiguration**(Object configuration)

Sets the configuration.

Parameters:

configuration - configuration parameters

(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 AbstractAuthenticationPluginHelper	getAuthenticationSystem() Returns the concrete implementation of the authentication system.
static AbstractProjectSuffixPluginHelper	getProjectSuffix() Returns the concrete implementation of the suffix project db.
static AbstractTokenDBPluginHelper	getToken() Returns the concrete implementation of the token db.
static AbstractUserRolePluginHelper	getUserManagement() Returns the concrete implementation of the user management interface.
static void	init (Map settings) Loads the path of plugins from Settings.
static boolean	isPassword (String keywordClassName, String key) Checks if the key is a password in the class keywordClassName related to the configuration file

Methods inherited from class java.lang.Object

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

Methods

init

public static void **init**(Map settings)

Loads the path of plugins from Settings.

Parameters:

settings - config settings

(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	getAuthor() Returns the author of the plugin.
abstract String	getDescription() Returns the description of the plugin
abstract String	getLicense() Returns the license of the plugin.
abstract String	getName() Returns the name of the plugin.
abstract String	getOwner() Returns the owner of the plugin.
abstract String	getVersion() Returns the version of the plugin.

Methods

getName

public abstract String **getName()**

Returns the name of the plugin.

Returns:

the name

getDescription

public abstract String **getDescription()**

Returns the description of the plugin

Returns:

description

getVersion

```
public abstract String getVersion()
```

Returns the version of the plugin.

Returns:
the version

getAuthor

```
public abstract String getAuthor()
```

Returns the author of the plugin.

Returns:
the author

getOwner

```
public abstract String getOwner()
```

Returns the owner of the plugin.

Returns:
the owner

getLicense

```
public abstract String getLicense()
```

Returns the license of the plugin.

Returns:
the license

fr.cnes.doi.plugin Class 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	addPath (String path) Adds a path in the classPath.
static void	loadFileInClassPath (File file) Adds a file in a classpath.

Methods inherited from class java.lang.Object

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

Methods

addPath

```
public static void addPath(String path)
    throws IllegalArgumentException,
           NoSuchMethodException,
           IllegalAccessException,
           InvocationTargetException,
           java.net.MalformedURLException
```

Adds a path in the classPath.

Parameters:

path - path

Throws:

IllegalArgumentException - - if path is null

NoSuchMethodException - - if a matching method is not found.

IllegalAccessException - - if this Method object is enforcing Java language access control and the underlying method is inaccessible.

InvocationTargetException - - if the underlying method throws an exception.

MalformedURLException - - If a protocol handler for the URL could not be found, or if some other error occurred while constructing the URL

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

public static final	LDAP_URL LDAP url Value: Starter.LDAP.url
public static final	LDAP_USER LDAP user Value: Starter.LDAP.user

Constructor Summary

public	DefaultLDAPImpl()
--------	-----------------------------------

Method Summary

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface [fr.cnes.doi.db.IAuthenticationDBHelper](#)

[authenticateUser](#), [getDOIAdmin](#), [getDOIProjectMembers](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginMetadata](#)

[getAuthor](#), [getDescription](#), [getLicense](#), [getName](#), [getOwner](#), [getVersion](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginConfiguration](#)

[initConnection](#), [isConfigured](#), [release](#), [setConfiguration](#), [validate](#)

Fields

LDAP_URL

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

LDAP url

Constant value: **Starter.LDAP.url**

LDAP_USER

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

LDAP user

Constant value: **Starter.LDAP.user**

LDAP_PWD

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

LDAP pwd

Constant value: **Starter.LDAP.password**

LDAP_PROJECT

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

LDAP project

Constant value: **Starter.LDAP.project**

LDAP_DOI_ADMIN

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

LDAP username who is the administrator of the DOI server

Constant value: **Starter.LDAP.user.admin**

LDAP_SEARCH_GROUP

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


(continued from last page)

Specifies the filter expression to get the group.
Constant value: **Starter.LDAP.search.group**

LDAP_SEARCH_USER

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

Specifies the filter expression to get the users.
Constant value: **Starter.LDAP.search.user**

LDAP_ATTR_USERNAME

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

Attributes name in LDAP for username.
Constant value: **Starter.LDAP.attr.username**

LDAP_ATTR_MAIL

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

Attributes name in LDAP for mail.
Constant value: **Starter.LDAP.attr.mail**

LDAP_ATTR_FULLNAME

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

Attributes name in LDAP for fullname.
Constant value: **Starter.LDAP.attr.fullname**

Constructors

DefaultLDAPImpl

```
public DefaultLDAPImpl()
```

Methods

setConfiguration

```
public void setConfiguration(Object configuration)
```

initConnection

```
public void initConnection()  
    throws DoiRuntimeException
```

getDOIProjectMembers

```
public List getDOIProjectMembers()  
    throws AuthenticationAccessException
```

(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	DefaultProjectSuffixImpl()
--------	--

Method Summary

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

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

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.

(continued from last page)

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	DefaultTokenImpl()
--------	------------------------------------

Method Summary

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

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

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	DefaultUserRoleImpl()
--------	---------------------------------------

Method Summary

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

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

Methods inherited from class [fr.cnes.doi.db.AbstractUserRoleDBHelper](#)

[addDOIUser](#), [addDOIUser](#), [addUserToRole](#), [getRealm](#), [getUsers](#), [getUsersFromRole](#), [isUserExist](#), [removeDOIUser](#), [removeUserToRole](#), [setUserToAdminGroup](#), [unsetUserFromAdminGroup](#)

Methods inherited from class [java.util.Observable](#)

[addObserver](#), [clearChanged](#), [countObservers](#), [deleteObserver](#), [deleteObservers](#), [hasChanged](#), [notifyObservers](#), [notifyObservers](#), [setChanged](#)

Methods inherited from class [java.lang.Object](#)

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginMetadata](#)

[getAuthor](#), [getDescription](#), [getLicense](#), [getName](#), [getOwner](#), [getVersion](#)

Methods inherited from interface [fr.cnes.doi.plugin.PluginConfiguration](#)

[initConnection](#), [isConfigured](#), [release](#), [setConfiguration](#), [validate](#)

Constructors

DefaultUserRoleImpl

```
public DefaultUserRoleImpl()
```

Methods

setConfiguration

```
public void setConfiguration(Object configuration)
```

initConnection

```
public void initConnection()  
    throws DoiRuntimeException
```

getUsers

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

Returns the allowed users for authentication.

getUsersFromRole

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

Get users from a specific role.

addUserToRole

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

Adds an user to a specific role.

removeUserToRole

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

Removes an user from a specific role.

setUserToAdminGroup

```
public boolean setUserToAdminGroup(String user)
```

Add user to Administrators group

unsetUserFromAdminGroup

```
public boolean unsetUserFromAdminGroup(String user)
```

Remove user to Administrators group

isUserExist

```
public boolean isUserExist(String username)
```

Tests if the user exists.

addDOIUser

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

Add a DOI user

addDOIUser

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

Add a DOI user

removeDOIUser

```
public boolean removeDOIUser(String username)
```

Removes the user

getName

```
public String getName()
```

getDescription

```
public String getDescription()
```

getVersion

```
public String getVersion()
```

getAuthor

```
public String getAuthor()
```

getOwner

```
public String getOwner()
```

getLicense

```
public String getLicense()
```

validate

```
public StringBuilder validate()
```

isPassword

```
public static boolean isPassword(String key)
```

Checks if the keyword is a password.

Parameters:

key - keyword to check

Returns:

True when the keyword is a password otherwise False

release

```
public void release()
```

isConfigured

```
public boolean isConfigured()
```

Package

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

Provides database access implementation using JDBC connector.

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

Class DOIDbDataAccessServiceImpl

java.lang.Object

└--fr.cnes.doi.plugin.impl.db.impl.DOIDbDataAccessServiceImpl

All Implemented Interfaces:

[DOIDbDataAccessService](#)

public final class **DOIDbDataAccessServiceImpl**

extends Object

implements [DOIDbDataAccessService](#)

Implementation of the [DOIDbDataAccessService](#) using JDBC.

Author:

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

Field Summary

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

Constructor Summary

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

Method Summary

void	<u>addDOIProject</u> (int suffix, String projectname)
void	<u>addDOIProjectToUser</u> (String username, int suffix)
void	<u>addDOIUser</u> (String username, Boolean admin)
void	<u>addDOIUser</u> (String username, Boolean admin, String email)
void	<u>addToken</u> (String token)
void	<u>close</u> ()
void	<u>deleteToken</u> (String token)
List	<u>getAllDOIProjects</u> ()
List	<u>getAllDOIProjectsForUser</u> (String username)
List	<u>getAllDOIUsers</u> ()
List	<u>getAllDOIUsersForProject</u> (int suffix)
String	<u>getDOIProjectName</u> (int suffix)
List	<u>getTokens</u> ()
void	<u>init</u> (String dbUrl, String dbUser, String dbPwd, Map options) Initialize the JDBC connection when it is not defined.
boolean	<u>isAdmin</u> (String username)
boolean	<u>isUserExist</u> (String username)
void	<u>removeDOIProject</u> (int suffix)
void	<u>removeDOIProjectFromUser</u> (String username, int suffix)
void	<u>removeDOIUser</u> (String username)
void	<u>renameDOIProject</u> (int suffix, String newprojectname)
void	<u>setAdmin</u> (String username)
void	<u>unsetAdmin</u> (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	DEFAULT_MAX_ACTIVE_CONNECTION Default max active connection #DEFAULT_MAX_ACTIVE_CONNECTION. Value: 50
public static final	DEFAULT_MAX_IDLE_CONNECTION Default max IDL connection #DEFAULT_MAX_IDLE_CONNECTION. Value: 50

public static final

[DEFAULT_MIN_IDLE_CONNECTION](#)

Default min IDL connection #DEFAULT_MIN_IDLE_CONNECTION.
Value: **10**

Constructor Summary

public

[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

DOIDbDataAccessService	getDatabaseAccess() Returns the database access.
static DatabaseSingleton	getInstance() Returns the instance
void	init (String dbUrl, String dbUser, String dbPwd, Map options) Initialize the DOI database.

Methods inherited from class java.lang.Object

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

Methods

getInstance

public static [DatabaseSingleton](#) **getInstance()**

Returns the instance

Returns:

the instance

init

public void **init**(String dbUrl,
String dbUser,
String dbPwd,
Map options)

Initialize the DOI database.

Parameters:

dbUrl - database URL

dbUser - database user

dbPwd - database password

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

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

Method Summary

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

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

Method Summary

org.restlet.representation.Representation	checkAuth()
---	-----------------------------

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe,
describe, describe, describe, describe, describe, describe, describeDelete,
describeGet, describeMethod, describeMethod, describeOptions, describeParameters,
describePatch, describePost, describePut, doInit, getDescription, getName,
getParameter, getParameters, getPreferredWadlVariant, getResourcePath,
getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing,
setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class org.restlet.resource.Resource

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class java.lang.Object

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

Constructors

AuthenticateResource

```
public AuthenticateResource()
```

Methods

checkAuth

```
public org.restlet.representation.Representation checkAuth()
```

fr.cnes.doi.resource.admin Class ConfigIhmResource

```

java.lang.Object
|
+-org.restlet.resource.Resource
|
|   +-org.restlet.resource.ServerResource
|   |
|   |   +-org.restlet.ext.wadl.WadlServerResource
|   |   |
|   |   |   +-fr.cnes.doi.resource.AbstractResource
|   |   |   |
|   |   |   |   +-fr.cnes.doi.resource.admin.ConfigIhmResource

```

public class **ConfigIhmResource**
extends [AbstractResource](#)

Retrieves configuration file.

Author:

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

Constructor Summary

public	ConfigIhmResource()
--------	-------------------------------------

Method Summary

void	describeGet (MethodInfo info)
void	doInit () Init
org.restlet.representation.Representation	getConfig () Returns the configuration file.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

[canDescribe](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [describe](#), [describe](#),
[describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [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	FooterIhmResource()
--------	-------------------------------------

Method Summary

void	describeGet (MethodInfo info)
void	doInit ()
org.restlet.representation.Representation	getFooter () Returns the footer.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe,
describe, describe, describe, describe, describe, describe, describeDelete,
describeGet, describeMethod, describeMethod, describeOptions, describeParameters,
describePatch, describePost, describePut, doInit, getDescription, getName,
getParameter, getParameters, getPreferredWadlVariant, getResourcePath,
getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing,
setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class org.restlet.resource.Resource

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class java.lang.Object

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

Constructors

FooterIhmResource

```
public FooterIhmResource()
```

Methods

doInit

```
protected void doInit()
    throws org.restlet.resource.ResourceException
```

Init

getFooter

```
public org.restlet.representation.Representation getFooter()
```

(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	PROJECT_NAME_PARAMETER Parameter for the project name #PROJECT_NAME_PARAMETER. Value: newProjectName
---------------------	---

Constructor Summary

public	ManageProjectsResource ()
--------	---

Method Summary

void	deleteProject () Delete the project from database.
void	describeDelete (MethodInfo info)
void	describePost (MethodInfo info)
void	doInit () Set-up method that can be overridden in order to initialize the state of the resource.
void	renameProject (org.restlet.data.Form mediaForm) Rename the project from the project id sent in url.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, 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	ManageSuperUserResource ()
--------	--

Method Summary

void	deleteSuperUser () Delete the SUPERUSER from database.
void	describeDelete (MethodInfo info)
void	describeGet (MethodInfo info)
void	doInit () Set-up method that can be overridden in order to initialize the state of the resource.
boolean	isUserExistAndAdmin () Returns null is user doesn't exist otherwise return true or false if user is admin or not.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class [org.restlet.ext.wadl.WadlServerResource](#)

[canDescribe](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [describe](#), [describe](#),
[describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [describeDelete](#),
[describeGet](#), [describeMethod](#), [describeMethod](#), [describeOptions](#), [describeParameters](#),
[describePatch](#), [describePost](#), [describePut](#), [doInit](#), [getDescription](#), [getName](#),
[getParameter](#), [getParameters](#), [getPreferredWadlVariant](#), [getResourcePath](#),
[getResourcesBase](#), [getWadlVariants](#), [isAutoDescribing](#), [options](#), [setAutoDescribing](#),
[setDescription](#), [setName](#)

Methods inherited from class `org.restlet.resource.ServerResource`

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class `org.restlet.resource.Resource`

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class `java.lang.Object`

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

Constructors

ManageSuperUserResource

```
public ManageSuperUserResource()
```

Methods

doInit

```
protected void doInit()
    throws org.restlet.resource.ResourceException
```

Set-up method that can be overridden in order to initialize the state of the resource.

Throws:

`ResourceException` - - if a problem happens

isUserExistAndAdmin

```
public boolean isUserExistAndAdmin()
```

Returns null is user doesn't exist otherwise return true or false if user is admin or not.

Returns:

boolean.

deleteSuperUser

```
public void deleteSuperUser()
```

Delete the SUPERUSER from database.

describeGet

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

describeDelete

```
protected void describeDelete(MethodInfo info)
```

fr.cnes.doi.resource.admin Class ManageSuperUsersResource

```

java.lang.Object
├── org.restlet.resource.Resource
│   ├── org.restlet.resource.ServerResource
│       ├── org.restlet.ext.wadl.WadlServerResource
│           ├── fr.cnes.doi.resource.AbstractResource
│               └── fr.cnes.doi.resource.admin.ManageSuperUsersResource

```

public class **ManageSuperUsersResource**
extends [AbstractResource](#)

Provide a resource to get all super users and add a user to the super user group.

Field Summary

public static final	SUPERUSER_NAME_PARAMETER Parameter for the SUPERUSER name #SUPERUSER_NAME_PARAMETER. Value: superUserName
---------------------	--

Constructor Summary

public	ManageSuperUsersResource ()
--------	---

Method Summary

void	createSuperUser (org.restlet.data.Form mediaForm) Rename the SUPERUSER from the SUPERUSER id sent in url.
void	doInit () Set-up method that can be overridden in order to initialize the state of the resource.
List	getSuperUsersAsJson () Returns the list of superusers as an array format.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, 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	USER_NAME_PARAMETER Parameter for the user name #USER_NAME_PARAMETER. Value: user
---------------------	--

Constructor Summary

public	ManageUsersResource()
--------	---------------------------------------

Method Summary

void	addUserToProject (org.restlet.data.Form mediaForm) Adds user to project
void	deleteProject () Delete the project
void	doInit () Set-up method that can be overridden in order to initialize the state of the resource.
List	getUsers () Get users.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, 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

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	RedirectingResource()
--------	---------------------------------------

Method Summary

org.restlet.representation.Representation	doGet()
---	-------------------------

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe,
 describe, describe, describe, describe, describe, describe, describeDelete,
 describeGet, describeMethod, describeMethod, describeOptions, describeParameters,
 describePatch, describePost, describePut, doInit, getDescription, getName,
 getParameter, getParameters, getPreferredWadlVariant, getResourcePath,
 getResourcesBase, getWadlVariants, isAutoDescribing, options, setAutoDescribing,
 setDescription, setName

Methods inherited from class org.restlet.resource.ServerResource

abort, commit, delete, delete, describeVariants, doCatch, doConditionalHandle, doError, doHandle, doHandle, doNegotiatedHandle, get, get, getAttribute, getDescription, getInfo, getInfo, getName, getOnSent, getPreferredVariant, getRole, getVariants, getVariants, handle, hasAnnotations, head, head, isAnnotated, isAutoCommitting, isCommitted, isConditional, isExisting, isInRole, isNegotiated, options, options, patch, patch, post, post, put, put, redirectPermanent, redirectPermanent, redirectSeeOther, redirectSeeOther, redirectTemporary, redirectTemporary, setAllowedMethods, setAnnotated, setAttribute, setAutoCommitting, setChallengeRequests, setCommitted, setConditional, setCookieSettings, setDescription, setDimensions, setExisting, setLocationRef, setLocationRef, setName, setNegotiated, setOnSent, setProxyChallengeRequests, setServerInfo, setStatus, setStatus, setStatus, setStatus, updateAllowedMethods, updateDimensions

Methods inherited from class org.restlet.resource.Resource

doCatch, doError, doError, doInit, doRelease, getAllowedMethods, getApplication, getAttribute, getChallengeRequests, getChallengeResponse, getClientInfo, getConditions, getConnegService, getContext, getConverterService, getCookies, getCookieSettings, getDimensions, getHostRef, getLocationRef, getLogger, getMatrix, getMatrixValue, getMaxForwards, getMetadataService, getMethod, getOriginalRef, getProtocol, getProxyChallengeRequests, getProxyChallengeResponse, getQuery, getQueryValue, getRanges, getReference, getReferrerRef, getRequest, getRequestAttributes, getRequestCacheDirectives, getRequestEntity, getResponse, getResponseAttributes, getResponseCacheDirectives, getResponseEntity, getRootRef, getServerInfo, getStatus, getStatusService, handle, init, isConfidential, isLoggable, release, setApplication, setAttribute, setQueryValue, setRequest, setResponse, toBoolean, toByte, toDouble, toFloat, toInteger, toLong, toObject, toRepresentation, toRepresentation, toRepresentation, toShort, toString

Methods inherited from class java.lang.Object

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

Constructors

RedirectingResource

```
public RedirectingResource()
```

Methods

doGet

```
public org.restlet.representation.Representation doGet()
```

fr.cnes.doi.resource.admin Class SuffixProjectsDoisResource

```

java.lang.Object
├── org.restlet.resource.Resource
│   ├── org.restlet.resource.ServerResource
│       ├── org.restlet.ext.wadl.WadlServerResource
│           ├── fr.cnes.doi.resource.AbstractResource
│               └── fr.cnes.doi.resource.admin.SuffixProjectsDoisResource

```

public class **SuffixProjectsDoisResource**
extends [AbstractResource](#)

Provides a unique identifier to the project. This identifier is used as part of the DOI name.

Author:

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

Constructor Summary

public	SuffixProjectsDoisResource()
--------	--

Method Summary

void	describeGet (MethodInfo info) Describes a GET method.
void	doInit () Set-up method that can be overridden in order to initialize the state of the resource.
List	getProjectsNameAsJson () Returns the list of dois from the project suffix sent in url.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class [org.restlet.ext.wadl.WadlServerResource](#)

[canDescribe](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [describe](#), [describe](#),
[describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [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	NB_DIGITS Number of digits (#NB_DIGITS) in which the suffix project is encoded. Value: 6
public static final	PROJECT_NAME_PARAMETER Parameter for the project name #PROJECT_NAME_PARAMETER. Value: projectName
public static final	USER_PARAMETER Query parameter for user #USER_PARAMETER. Value: user

Constructor Summary

public	SuffixProjectsResource ()
--------	--

Method Summary

org.restlet.representation.Representation	createProject (org.restlet.data.Form mediaForm) Creates a suffix projet based on the project name.
void	describeGet (MethodInfo info) Describes a GET method.
void	describePost (MethodInfo info) Describes a POST method.
void	doInit () Set-up method that can be overridden in order to initialize the state of the resource.
Map	getProjectsNameAsJson () Returns the list of projects as Json or xml format.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class [org.restlet.ext.wadl.WadlServerResource](#)

[canDescribe](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [describe](#), [describe](#),
[describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [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	AMOUNT_OF_TIME_PARAMETER Amount of time for which the token is not expired. Value: amountTime
public static final	IDENTIFIER_PARAMETER User ID of the operator that creates the token. Value: identifier
public static final	PROJECT_ID_PARAMETER Token for a specific project. Value: projectID
public static final	UNIT_OF_TIME_PARAMETER Unit of time used to define the expiration time of the token. Value: typeOfTime

Constructor Summary

public	TokenResource()
--------	---------------------------------

Method Summary

String	createToken (org.restlet.data.Form infoForm) Creates and stores a token.
void	deleteToken () Deletes token.
void	describeGet (MethodInfo info) Describes GET method.

void	<u>describePost</u> (MethodInfo info) Describes POST method.
void	<u>doInit</u> () Set-up method that can be overridden in order to initialize the state of the resource
org.restlet.representation.Representation	<u>getTokenInformation</u> () Returns the information from the token encoded as JSon format.

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

`canDescribe`, `createHtmlRepresentation`, `createWadlRepresentation`, `describe`, `describe`,
`describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `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 project.

fr.cnes.doi.resource.citation Class BaseCitationResource

```

java.lang.Object
├── org.restlet.resource.Resource
│   ├── org.restlet.resource.ServerResource
│       ├── org.restlet.ext.wadl.WadlServerResource
│           ├── fr.cnes.doi.resource.AbstractResource
│               └── fr.cnes.doi.resource.citation.BaseCitationResource

```

Direct Known Subclasses:

[LanguageCitationResource](#), [FormatCitationResource](#), [StyleCitationResource](#)

```

public class BaseCitationResource
extends AbstractResource

```

Base resource for CrossCite application.

Author:

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

Field Summary

public static final	DOI_PARAMETER Parameter providing the digital object identifier #DOI_PARAMETER. Value: doi
public static final	LANG_PARAMETER Language parameter to format the citation #LANG_PARAMETER. Value: lang
protected volatile	LOG Logger.
public static final	STYLE_PARAMETER Style parameter to format the citation #STYLE_PARAMETER. Value: style

Constructor Summary

public	BaseCitationResource ()
--------	---

Method Summary

void	doInit () Init.
DoiCrossCiteApplication	getApp () Returns CrossCiteApplication.

RepresentationInfo	listRepresentation (String title, org.restlet.data.MediaType media, String content) List representation.
--------------------	---

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class [org.restlet.ext.wadl.WadlServerResource](#)

[canDescribe](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [describe](#), [describe](#),
[describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [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	FormatCitationResource()
--------	--

Method Summary

void	describeGet (MethodInfo info) Describes the Get Method.
void	doInit () Init by getting doi, lang and style values.
String	getFormat () Returns the formatted citation.

Methods inherited from class [fr.cnes.doi.resource.citation.BaseCitationResource](#)

[doInit](#), [getApp](#), [listRepresentation](#)

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

`canDescribe`, `createHtmlRepresentation`, `createWadlRepresentation`, `describe`, `describe`,
`describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `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	LanguageCitationResource()
--------	--

Method Summary

void	describeGet (MethodInfo info)
------	---

Describes the Get Method.

void	doInit ()
------	---------------------------

Init.

List	getLanguages ()
------	---------------------------------

Returns the languages as JSON to format the citation.

Methods inherited from class [fr.cnes.doi.resource.citation.BaseCitationResource](#)

[doInit](#), [getApp](#), [listRepresentation](#)

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#), [addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#), [createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#), [isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class [org.restlet.ext.wadl.WadlServerResource](#)

canDescribe, createHtmlRepresentation, createWadlRepresentation, describe, describe, describe, describe, describe, describe, describe, 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

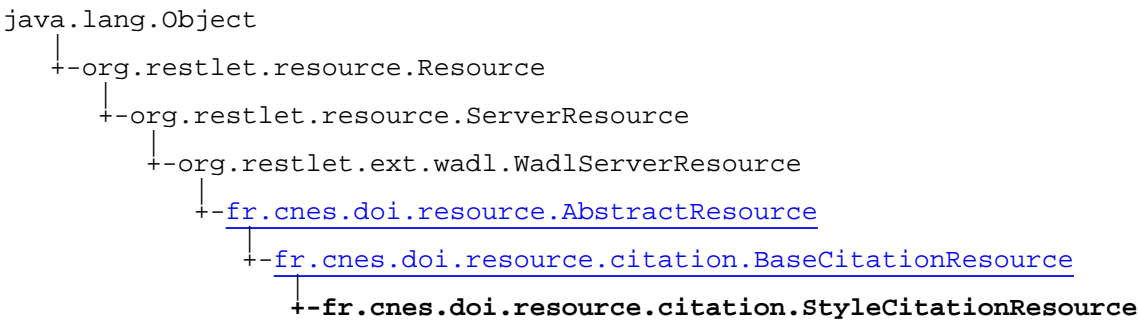
```
protected final void describeGet(MethodInfo info)
```

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)

Fields inherited from class fr.cnes.doi.resource.citation.BaseCitationResource	
DOI_PARAMETER	LANG_PARAMETER
LOG	STYLE_PARAMETER

Constructor Summary	
public	StyleCitationResource()

Method Summary	
void	describeGet (<code>MethodInfo info</code>) Describes the Get Method.
void	doInit () Init.
List	getStyles () Returns the styles as JSON array for a citation.

Methods inherited from class fr.cnes.doi.resource.citation.BaseCitationResource	
doInit	getApp
listRepresentation	

Methods inherited from class fr.cnes.doi.resource.AbstractResource	
addRequestDocToMethod	addRequestDocToMethod
addRequestDocToMethod	addRequestDocToMethod
addResponseDocToMethod	createQueryParamDoc
createQueryParamDoc	createQueryRepresentationDoc
createResponseDoc	createResponseDoc
createResponseDoc	doInit
doInit	htmlRepresentation
htmlRepresentation	isObjectExist
isObjectExist	isObjectNotExist
isObjectNotExist	isValueExist
isValueExist	isValueNotExist
isValueNotExist	stringRepresentation

Methods inherited from class <code>org.restlet.ext.wadl.WadlServerResource</code>	
---	--

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

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	DOI_PARAMETER The parameter that describes the DOI name #DOI_PARAMETER. Value: doi
protected volatile	LOG Logger.
public static final	URL_PARAMETER The parameter that describes the landing page related to the DOI #URL_PARAMETER. Value: url

Constructor Summary

public	BaseMdsResource ()
--------	------------------------------------

Method Summary

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

RepresentationInfo	<u>explainRepresentation()</u> Body representation.
String	<u>extractSelectedRoleFromRequestIfExists()</u> Extract <i>selectedRole</i> from HTTP header.
String	<u>getAttributePath(String basePath)</u> Retrieves path by cleaning query parameters.
<u>DoiMdsApplication</u>	<u>getDoiApp()</u> 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	GET_Doi Function of this resource #GET_Doi. Value: Get Doi
---------------------	---

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

[DOI_PARAMETER](#), [LOG](#), [URL_PARAMETER](#)

Constructor Summary

public	DoiResource()
--------	-------------------------------

Method Summary

void	describeGet (MethodInfo info) Describes the Get Method.
void	doInit() Init by getting the DOI name in the template URL .
org.restlet.representation.Representation	getDoi() Returns the URL associated to a given DOI or no content.

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

[checkPermission](#), [describeDelete](#), [describePost](#), [doInit](#), [explainRepresentation](#), [extractSelectedRoleFromRequestIfExists](#), [getAttributePath](#), [getDoiApp](#)

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

`canDescribe`, `createHtmlRepresentation`, `createWadlRepresentation`, `describe`, `describe`,
`describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `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	CREATE_DOI Function of this resource #CREATE_DOI. Value: Create a DOI
public static final	LIST_ALL_DOIS Function of this resource #LIST_ALL_DOIS. Value: List all DOIs

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

[DOI_PARAMETER](#), [LOG](#), [URL_PARAMETER](#)

Constructor Summary

public	DoisResource ()
--------	---------------------------------

Method Summary

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

List	getDois() Returns the collection of DOI.
------	---

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

[checkPermission](#), [describeDelete](#), [describePost](#), [doInit](#), [explainRepresentation](#), [extractSelectedRoleFromRequestIfExists](#), [getAttributePath](#), [getDoiApp](#)

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#), [addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#), [createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#), [isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

Methods inherited from class [org.restlet.ext.wadl.WadlServerResource](#)

[canDescribe](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [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.DATAACITE_API_RESPONSE.SUCESS_CREATED](#)
- [DoiMdsApplication.API_MDS.LANGING_PAGE_VALIDATION](#)
- [ClientMDS.DATAACITE_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.DATAACITE_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	MediaResource ()
--------	----------------------------------

Method Summary

org.restlet.representation.Representation	createMedia (org.restlet.data.Form mediaForm)
---	---

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

void	describeGet (MethodInfo info)
------	---

Describes the GET method.

void	describePost (MethodInfo info)
------	--

Describes the POST method.

void	doInit ()
------	---------------------------

Init by getting the media name.

org.restlet.representation.Representation	getMedias ()
---	------------------------------

Returns the media related to a DOI.

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

[checkPermission](#), [describeDelete](#), [describePost](#), [doInit](#), [explainRepresentation](#), [extractSelectedRoleFromRequestIfExists](#), [getAttributePath](#), [getDoiApp](#)

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

`canDescribe`, `createHtmlRepresentation`, `createWadlRepresentation`, `describe`, `describe`,
`describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `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	DELETE_METADATA Function of this resource #DELETE_METADATA. Value: Delete a Metadata
public static final	GET_METADATA Function of this resource #GET_METADATA. Value: Get a Metadata

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

[DOI_PARAMETER](#), [LOG](#), [URL_PARAMETER](#)

Constructor Summary

public	MetadataResource ()
--------	-------------------------------------

Method Summary

org.restlet.representation.Representation	deleteMetadata() Deletes a representation for a given DOI.
void	describeDelete (MethodInfo info) Describes the DELETE method.
void	describeGet (MethodInfo info) Describes the GET method.
void	doInit() Init by getting a DOI.

org.restlet.representation.Representation	getMetadata() Retuns the metadata for a given DOI.
Resource	getMetadataAsJson() Returns the metadata as JSON.

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

[checkPermission](#), [describeDelete](#), [describePost](#), [doInit](#), [explainRepresentation](#), [extractSelectedRoleFromRequestIfExists](#), [getAttributePath](#), [getDoiApp](#)

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#), [addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#), [createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#), [isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

[canDescribe](#), [createHtmlRepresentation](#), [createWadlRepresentation](#), [describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [describe](#), [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	CREATE_METADATA Function of this resource #CREATE_METADATA. Value: Create Metadata
---------------------	---

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

[DOI_PARAMETER](#), [LOG](#), [URL_PARAMETER](#)

Constructor Summary

public	MetadatasResource()
--------	-------------------------------------

Method Summary

String	createMetadata (org.restlet.representation.Representation entity) Create Metadata for a given DOI.
void	describePost (MethodInfo info) Describes the POST method.
void	doInit () Init.

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

[checkPermission](#), [describeDelete](#), [describePost](#), [doInit](#), [explainRepresentation](#),
[extractSelectedRoleFromRequestIfExists](#), [getAttributePath](#), [getDoiApp](#)

Methods inherited from class [fr.cnes.doi.resource.AbstractResource](#)

[addRequestDocToMethod](#), [addRequestDocToMethod](#), [addRequestDocToMethod](#),
[addResponseDocToMethod](#), [createQueryParamDoc](#), [createQueryRepresentationDoc](#),
[createResponseDoc](#), [createResponseDoc](#), [createResponseDoc](#), [doInit](#), [htmlRepresentation](#),
[isObjectExist](#), [isObjectNotExist](#), [isValueExist](#), [isValueNotExist](#), [stringRepresentation](#)

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

`canDescribe`, `createHtmlRepresentation`, `createWadlRepresentation`, `describe`, `describe`,
`describe`, `describe`, `describe`, `describe`, `describe`, `describe`, `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

MetadatasResource

```
public MetadatasResource()
```

Methods

doInit

```
protected void doInit()  
    throws DoiServerException
```

Init.

Throws:

[DoiServerException](#) - - if a problem happens

createMetadata

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

Create Metadata for a given DOI. The DOI name is given in the metadata entity. This request stores new version of metadata and returns a 201 status when the operation is successful.

Parameters:

entity - Metadata representation

Returns:

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

Throws:

[DoiServerException](#) - - if the response is not a success

- [DoiMdsApplication.API_MDS.SECURITY_USER_NO_ROLE](#)
- [DoiMdsApplication.API_MDS.SECURITY_USER_NOT_IN_SELECTED_ROLE](#)
- [DoiMdsApplication.API_MDS.SECURITY_USER_PERMISSION](#)
- [DoiMdsApplication.API_MDS.SECURITY_USER_CONFLICT](#)
- [DoiMdsApplication.API_MDS.DATACITE_PROBLEM](#)
- [DoiMdsApplication.API_MDS.METADATA_VALIDATION](#)
- [DoiMdsApplication.API_MDS.NETWORK_PROBLEM](#)

describePost

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

(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 AllowerIP

```

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

All Implemented Interfaces:

org.restlet.Uniform

```

public class AllowerIP
extends org.restlet.routing.Filter
  
```

IP filtering. When the service is disabled, no filtering is applied. When the service is enabled, the service allows IPs such as 127.0.0.1 and IPs coming from `addCustomIP(Set)`. Allowed IPs are set based on a parameter from the configuration file

[Consts.ADMIN_IP_ALLOWER](#)

Author:

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

Field Summary

public static final	LOCALHOST_IPV4 Localhost in IPv4. Value: 127.0.0.1
public static final	LOCALHOST_IPV6 Localhost in IPv6. Value: 0:0:0:0:0:0:0:1

Fields inherited from class org.restlet.routing.Filter

CONTINUE, SKIP, STOP

Constructor Summary

public	AllowerIP (org.restlet.Context context, boolean isEnabledIP) Constructor based on the context and a parameter to make enabled/disabled the service
--------	---

Method Summary

int	beforeHandle (org.restlet.Request request, org.restlet.Response response) Before Handler.
Set	getAllowedAddresses () Returns the allowed addresses.
boolean	isEnabled () Returns True when the service is enabled otherwise False.

Methods inherited from class org.restlet.routing.Filter

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

Methods inherited from class `org.restlet.Restlet`

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Fields

LOCALHOST_IPV6

```
public static final java.lang.String LOCALHOST_IPV6
```

Localhost in IPv6.

Constant value: **0:0:0:0:0:0:0:1**

LOCALHOST_IPV4

```
public static final java.lang.String LOCALHOST_IPV4
```

Localhost in IPv4.

Constant value: **127.0.0.1**

Constructors

AllowerIP

```
public AllowerIP(org.restlet.Context context,
                 boolean isEnabledIP)
```

Constructor based on the context and a parameter to make enabled/disabled the service

Parameters:

`context` - context

`isEnabledIP` - True when the service is enabled otherwise False

Methods

beforeHandle

```
protected int beforeHandle(org.restlet.Request request,
                             org.restlet.Response response)
```

(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	LoginBasedVerifier() Constructor.
--------	--

Method Summary

int	verify (org.restlet.Request request, org.restlet.Response response) Verifies the user name and his password.
-----	---

Methods inherited from class java.lang.Object

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

Methods inherited from interface org.restlet.security.Verifier

verify

Constructors

LoginBasedVerifier

public **LoginBasedVerifier()**

Constructor.

Methods

(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	GROUP_ADMIN Group name for the administrators #GROUP_ADMIN. Value: Administrator
public static final	GROUP_USERS Group name for the users #GROUP_USERS. Value: Users
public static final	ROLE_ADMIN Role name for the administrators #ROLE_ADMIN. Value: admin

Method Summary

boolean	createRealmFor (org.restlet.Application app) Init Realm for an application.
static RoleAuthorizer	getInstance () Access to unique INSTANCE of role authorizer
void	update (Observable obs, Object obj) Adds/removes the <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	TokenBasedVerifier (AbstractTokenDBHelper tokenDB) Constructor.
--------	---

Method Summary

int	verify (org.restlet.Request request, org.restlet.Response response) Verifies the token.
-----	--

Methods inherited from class java.lang.Object

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

Methods inherited from interface org.restlet.security.Verifier

verify

Constructors

TokenBasedVerifier

public **TokenBasedVerifier**([AbstractTokenDBHelper](#) tokenDB)

Constructor.

Parameters:

tokenDB - token DB

Methods

verify

```
public int verify(org.restlet.Request request,  
                  org.restlet.Response response)
```

Verifies the token.

Parameters:

request - request
response - response

Returns:

the result

fr.cnes.doi.security Class TokenSecurity

java.lang.Object

└-fr.cnes.doi.security.TokenSecurity

public final class **TokenSecurity**
extends Object

Security class for token generation.

Author:

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

Nested Class Summary

class	TokenSecurity.TimeUnit TokenSecurity.TimeUnit
-------	--

Field Summary

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

Method Summary

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

io.jsonwebtoken.Jws	getTokenInformation (String jwtToken) Returns the token information.
String	getTokenKey () Returns the token key computed by the algorithm HS256.
boolean	isExpired (String token) Returns true when the token is expired otherwise false.
void	setTokenKey (String tokenKey) Sets a custom token key.

Methods inherited from class java.lang.Object

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

Fields

PROJECT_ID

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

Project ID name in token.
Constant value: **projectId**

PROJECT_NAME

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

Project name in token.
Constant value: **projectName**

DEFAULT_TOKEN_KEY

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

Default token key.
Constant value: **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	DAY Day.
public static final	HOUR Hour.
public static final	YEAR Year.

Method Summary

int	getTimeUnit() Returns the time unit.
static TokenSecurity.TimeUnit t	getTimeUnitFrom(int value) Returns the time unit from a value.
static TokenSecurity.TimeUnit t	valueOf(String name)
static TokenSecurity.TimeUnit t[]	values()

Methods inherited from class java.lang.Enum

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Comparable

```
compareTo
```

Fields

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 UtillsCryptography

java.lang.Object

└─fr.cnes.doi.security.UtillsCryptography

public final class **UtillsCryptography**
extends Object

Utility class to encrypt/decrypt

Author:

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

Field Summary

public static final	CIPHER_ALGORITHM Name of the transformation. Value: AES
public static final	DEFAULT_SECRET_KEY Default key to encrypt/decrypt. Value: 16BYTESSECRETKEY
public static final	KEY_ALGORITHM Name of the secret-key algorithm to be associated with the given key material. Value: AES

Method Summary

static String	decrypt (String encryptedInput) Decrypts the string with the DEFAULT_SECRET_KEY.
static String	decrypt (String encryptedInput, String secretKey) Decrypts the string with a custom secret key.
static String	encrypt (String str) Encrypts the string with the DEFAULT_SECRET_KEY.
static String	encrypt (String str, String secretKey) Encrypts the string with a specific secret key.

Methods inherited from class java.lang.Object

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

Fields

CIPHER_ALGORITHM

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

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

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

Constructor Summary

public	DoiServer (DoiSettings settings) Creates an instance of the server with settings coming from the config.properties
--------	--

Method Summary

void	start ()
void	stop ()

Methods inherited from class `org.restlet.Component`

```
getClients, getDefaultHost, getHosts, getInternalRouter, getLogService, getRealm,
getRealms, getServers, getServices, getStatusService, getTaskService, handle, main,
setClients, setContext, setDefaultHost, setHosts, setInternalRouter, setLogService,
setRealms, setServers, setStatusService, setTaskService, start, startClients,
startHelper, startRealms, startRouters, startServers, startServices, stop,
stopClients, stopHelper, stopRealms, stopRouters, stopServers, stopServices,
updateHosts
```

Methods inherited from class `org.restlet.Restlet`

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `org.restlet.Uniform`

```
handle
```

Fields

DEFAULT_SSL_CTX

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

Default value for [SSL_CTX_FACTORY](#) parameter : #DEFAULT_SSL_CTX.
Constant value: **org.restlet.engine.ssl.DefaultSslContextFactory**

SSL_CTX_FACTORY

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

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

Methods

start

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

stop

```
public void stop()  
    throws Exception
```


fr.cnes.doi.server

Class Starter

java.lang.Object

└─fr.cnes.doi.server.Starter

public final class **Starter**
extends Object

DOI server

Author:

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

Field Summary

public static final	BITS_16 Length of the secret key #BITS_16 Value: 16
---------------------	--

Method Summary

static void	main (String[] argv) Main.
-------------	---

Methods inherited from class java.lang.Object

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

Fields

BITS_16

public static final int **BITS_16**

Length of the secret key #BITS_16
 Constant value: **16**

Methods

main

public static void **main**(String[] argv)

Main.

Parameters:

argv - command line arguments

Package

fr.cnes.doi.services

Provides classes to monitor the speed of [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	CnesStatusService() Creates a specific error page.
--------	---

Method Summary

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.
---	--

Methods inherited from class org.restlet.service.StatusService

```

createInboundFilter, getConnegService, getContactEmail, getConverterService,
getHomeRef, getMetadataService, getRepresentation, getStatus, getStatus,
isOverwriting, setConnegService, setContactEmail, setConverterService, setHomeRef,
setMetadataService, setOverwriting, toRepresentation, toRepresentation, toStatus,
toStatus
  
```

Methods inherited from class org.restlet.service.Service

```

createInboundFilter, createOutboundFilter, getContext, isEnabled, isStarted,
isStopped, setContext, setEnabled, start, stop
  
```

Methods inherited from class java.lang.Object

```

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

Constructors

CnesStatusService

```
public CnesStatusService()
```

Creates a specific error page.

Methods

getRepresentation

```
public org.restlet.representation.Representation  
getRepresentation(org.restlet.data.Status status,  
                  org.restlet.Request request,  
                  org.restlet.Response response)
```

Returns the representation of the status page.

Parameters:

status - Status to send
request - request to server
response - response from the server

Returns:

the representation of the error page

fr.cnes.doi.services Class DoiMonitoring

java.lang.Object

└─fr.cnes.doi.services.DoiMonitoring

public class **DoiMonitoring**
extends Object

Speed monitoring (average time to answer requests).

Author:

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

Constructor Summary

public	DoiMonitoring ()
--------	----------------------------------

Method Summary

void	addMeasurement (org.restlet.data.Method name, String path, float duration) Add Measurement.
float	getCurrentAverage (org.restlet.data.Method name, String path) Returns the average speed of the measurement.
String	getDescription (org.restlet.data.Method name, String path) Returns the description.
boolean	isRegistered (org.restlet.data.Method name, String path) Checks if the features is registered.
void	register (org.restlet.data.Method name, String path, String description) Registers the features to monitor.

Methods inherited from class java.lang.Object

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

Constructors

DoiMonitoring

public **DoiMonitoring**()

Methods

(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	DoiMonitoringRecord (String description, float average, int nbAccess) Constructor.
--------	---

Method Summary

float	getAverage () Returns the average speed of the request.
String	getDescription () Returns the service description.
int	getNbAccess () Returns the number of access.
void	setAverage (float average) Sets the average speed of the request.
void	setDescription (String description) Sets the service description.
void	setNbAccess (int nbAccess) Sets the number of access.

Methods inherited from class java.lang.Object

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

Constructors

(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	DOIUsersUpdate()
--------	----------------------------------

Method Summary

void	run()
------	-----------------------

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Runnable

run

Constructors

DOIUsersUpdate

```
public DOIUsersUpdate()
```

Methods

run

```
public void run()
```

fr.cnes.doi.services

Class LandingPageMonitoring

java.lang.Object

└─fr.cnes.doi.services.LandingPageMonitoring

All Implemented Interfaces:

Runnable

```
public class LandingPageMonitoring
    extends Object
    implements Runnable
```

Provides a check on the availability of each published landing page publisher

Author:

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

Constructor Summary

public	LandingPageMonitoring()
--------	---

Method Summary

void	run() run.
------	-------------------------------

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Runnable

run

Constructors

LandingPageMonitoring

```
public LandingPageMonitoring()
```

Methods

run

```
public void run()
```

run.

fr.cnes.doi.services Class UpdateTokenDataBase

java.lang.Object

└--fr.cnes.doi.services.UpdateTokenDataBase

All Implemented Interfaces:

Runnable

```
public class UpdateTokenDataBase
  extends Object
  implements Runnable
```

Updates token database. The service checks if the token is expired. When it is expired, the token is removed from the database.

Author:

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

Constructor Summary

public	UpdateTokenDataBase()
--------	---------------------------------------

Method Summary

void	run()
------	-----------------------

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Runnable

run

Constructors

UpdateTokenDataBase

```
public UpdateTokenDataBase()
```

Methods

run

```
public void run()
```

Package

fr.cnes.doi.settings

Provides settings for the server. The settings are :

- [Configuration](#) settings
- [Proxy](#) settings
- [Email](#) settings
- [Jetty](#) settings

fr.cnes.doi.settings

Class Consts

```
java.lang.Object
```

```
└--fr.cnes.doi.settings.Consts
```

```
public final class Consts
extends Object
```

Consts contains all configuration variables, which are possible to use in the config.properties.

Author:

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

Field Summary

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

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

public static final	<u>JETTY_REQUEST_BUFFER_SIZE</u> HTTP header cache size in bytes. Value: Starter.REQUEST_BUFFER_SIZE
public static final	<u>JETTY_REQUEST_HEADER_SIZE</u> HTTP request header size in bytes; larger headers will allow for more and/or larger cookies plus larger form content encoded in a URL; however, larger headers consume more memory and can make a server more vulnerable to denial of service attacks. Value: Starter.REQUEST_HEADER_SIZE
public static final	<u>JETTY_RESPONSE_BUFFER_SIZE</u> HTTP output buffer size in bytes; a larger buffer can improve performance by allowing a content producer to run without blocking, however larger buffers consume more memory and may induce some latency before a client starts processing the content. Value: Starter.RESPONSE_BUFFER_SIZE
public static final	<u>JETTY_RESPONSE_HEADER_SIZE</u> HTTP response header size in bytes; larger headers will allow for more and/or larger cookies and longer HTTP headers (e.g. Value: Starter.RESPONSE_HEADER_SIZE
public static final	<u>JETTY_SELECTOR_THREADS</u> Connector selector thread count; when -1, Jetty will default to Runtime.availableProcessors(). Value: Starter.SELECTOR_THREADS
public static final	<u>JETTY_SO_LINGER_TIME</u> Connector TCP/IP SO linger time in milliseconds; when -1 is disabled; see Socket.setSoLinger(boolean, int). Value: Starter.SO_LINGER_TIME
public static final	<u>JETTY_THREAD_MAX_IDLE_TIME_MS</u> Jetty : Thread pool idle timeout in milliseconds; threads that are idle for longer than this period may be stopped. Value: Starter.THREAD_MAX_IDLE_TIME_MS
public static final	<u>JETTY_THREAD_STOP_TIME_MS</u> Thread pool stop timeout in milliseconds; the maximum time allowed for the service to shutdown. Value: Starter.THREAD_MAX_STOP_TIME_MS
public static final	<u>JETTY_THREADS_PRIORITY</u> Jetty : Thread pool threads priority. Value: Starter.THREADS_PRIORITY
public static final	<u>LOG_FORMAT</u> LOG format. Value: Starter.Server.Log.format
public static final	<u>LOG_IP_ADDRESS</u> Log for IP client forwarded to proxy. Value: ipAddress
public static final	<u>NAME</u> Name of the configuration file. Value: Starter.NAME

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

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

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

Methods inherited from class java.lang.Object

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

Fields

APP_NAME

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

Application's name.

Constant value: **Starter.APP_NAME**

VERSION

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

Application's version.

Constant value: **Starter.VERSION**

NAME

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

Name of the configuration file.

Constant value: **Starter.NAME**

COPYRIGHT

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

Application's copyright.

Constant value: **Starter.COPYRIGHT**

CONTEXT_MODE

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

Context (DEV, POST_DEV, PRE_PROD, PROD) of the use.

Constant value: **Starter.CONTEXT_MODE**

INIST_DOI

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

DOI prefix, which is given by INIST.

Constant value: **Starter.Inist.doi**

INIST_LOGIN

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

INIST login to use DATACITE's web services. The login is encrypted.

Constant value: **Starter.Inist.login**

INIST_PWD

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

INIST password to use DATACITE's web services. The password is encrypted.

Constant value: **Starter.Inist.pwd**

SERVER_HTTP_PORT

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

HTTP port number.

Constant value: **Starter.Server.HTTP.Port**

SERVER_HTTPS_SECRET_KEY

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

HTTPS password for this application. The password is encrypted.

Constant value: **Starter.Server.HTTPS.SecretKey**

SERVER_HTTPS_PORT

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

HTTPS port number.

Constant value: **Starter.Server.HTTPS.Port**

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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
```

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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**

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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**

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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	<u>CONFIG_PROPERTIES</u> Configuration files in JAR. Value: config.properties
---------------------	--

Method Summary

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

String	<code>getString</code> (String key) Returns the value of the key or null if no mapping for the key.
String	<code>getString</code> (String key, String defaultValue) Returns the value of the key as string.
boolean	<code>hasValue</code> (String key) Tests if the key has a value.
void	<code>setPropertyFile</code> (InputStream inputStream) Sets a custom properties file.
void	<code>setPropertyFile</code> (String path) Sets a custom properties file.
void	<code>setSecretKey</code> (String secretKey) Sets the secret key.
void	<code>validConfigurationFile</code> () 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	<code>getAuthPwd()</code> Returns the decrypted password.
String	<code>getAuthUser()</code> Returns the decrypted login.
String	<code>getContactAdmin()</code> Returns the administrator's email.
static <code>EmailSettings</code>	<code>getInstance()</code> Access to unique INSTANCE of Settings
String	<code>getSmtpprotocol()</code> Returns the protocol.
String	<code>getSmtppurl()</code> Returns the protocol URL.
String	<code>getTlsenable()</code> Returns True when TLS is enable otherwise False.
void	<code>init()</code> Init singleton.
boolean	<code>isDebug()</code> Returns the debug.
boolean	<code>sendMessage(String subject, String msg)</code> Sends a message by email.
boolean	<code>sendMessage(String subject, String msg, String receiverEmail)</code> Sends a message by email to receiver.
void	<code>setDebug(boolean isEnabled)</code> 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	JettySettings (org.restlet.Server server, DoiSettings settings) Constructs settings for Jetty.
--------	---

Method Summary

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

int	<code>getHttpOutputBufferSize()</code> HTTP output buffer size in bytes.
int	<code>getHttpRequestHeaderSize()</code> HTTP request header size in bytes.
int	<code>getHttpResponseHeaderSize()</code> HTTP response header size in bytes.
int	<code>getLowResourceMonitorIdleTimeout()</code> Low resource monitor idle timeout in milliseconds.
int	<code>getLowResourceMonitorMaxConnections()</code> Low resource monitor max connections.
long	<code>getLowResourceMonitorMaxMemory()</code> Low resource monitor max memory in bytes.
int	<code>getLowResourceMonitorPeriod()</code> Low resource monitor period in milliseconds.
long	<code>getLowResourceMonitorStopTimeout()</code> Low resource monitor stop timeout in milliseconds.
boolean	<code>getLowResourceMonitorThreads()</code> Low resource monitor, whether to check if we're low on threads.
int	<code>getThreadPoolIdleTimeout()</code> Thread pool idle timeout in milliseconds.
int	<code>getThreadPoolMaxThreads()</code> Thread pool maximum threads.
int	<code>getThreadPoolMinThreads()</code> Thread pool minimum threads.
long	<code>getThreadPoolStopTimeout()</code> Thread pool stop timeout in milliseconds.
int	<code>getThreadPoolThreadsPriority()</code> 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	<code>configureProxy()</code> Configure the proxy.
static <code>ProxySettings</code>	<code>getInstance()</code> Access to unique INSTANCE of Settings
String	<code>getNonProxyHosts()</code> Gets the nonproxyHosts value
String	<code>getProxyHost()</code> Gets the proxyHost value
String	<code>getProxyPassword()</code> Gets the proxyPassword value
String	<code>getProxyPort()</code> Gets the proxyPort value
String	<code>getProxyType()</code> Returns get type of proxy
String	<code>getProxyUser()</code> Gets the proxyUser value
void	<code>init()</code> Init the proxy setting
boolean	<code>isAuthenticate()</code> Returns true when the proxy needs an authentication otherwise false.
boolean	<code>isWithProxy()</code> 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	DOIProperties()
--------	---------------------------------

Method Summary

String	getProperty (String string)
--------	---

String	getProperty (String string, String string1)
--------	---

Methods inherited from class java.util.Properties

getProperty, getProperty, list, list, load, load, loadFromXML, propertyNames, save, setProperty, store, store, storeToXML, storeToXML, stringPropertyNames

Methods inherited from class java.util.Hashtable

clear, clone, compute, computeIfAbsent, computeIfPresent, contains, containsKey, containsValue, elements, entrySet, equals, forEach, get, getOrDefault, hashCode, isEmpty, keys, keySet, merge, put, putAll, putIfAbsent, rehash, remove, remove, replace, replace, replaceAll, size, toString, values

Methods inherited from class java.util.Dictionary

elements, get, isEmpty, keys, put, remove, size

Methods inherited from class java.lang.Object

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

Methods inherited from interface `java.util.Map`

```
clear, compute, computeIfAbsent, computeIfPresent, containsKey, containsValue, entrySet, equals, forEach, get, getOrDefault, hashCode, isEmpty, keySet, merge, put, putAll, putIfAbsent, remove, remove, replace, replace, replaceAll, size, values
```

Constructors

DOIProperties

```
public DOIProperties()
```

Methods

getProperty

```
public String getProperty(String string)
```

getProperty

```
public String getProperty(String string,  
                           String string1)
```

fr.cnes.doi.utils Class UniqueProjectName

java.lang.Object

└--fr.cnes.doi.utils.UniqueProjectName

public final class **UniqueProjectName**
extends Object

Utils class to generate a unique number from the project name

Method Summary

static UniqueProjectName	getInstance() Access to unique INSTANCE of Settings
List	getProjects() Returns the projects from the database.
List	getProjectsFromUser (String userName) Returns the projects associated to an user from the database.
int	getShortName (String project, int length) Build a unique String from the project name

Methods inherited from class java.lang.Object

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

Methods

getInstance

public static [UniqueProjectName](#) **getInstance()**

Access to unique INSTANCE of Settings

Returns:

the configuration instance.

getProjects

public List **getProjects()**
throws [DOIDbException](#)

Returns the projects from the database.

Returns:

the projects

Throws:

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

Method Summary

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

static Object[]	nullToEmpty (Object[] array, Class type) Defensive programming technique to change a null reference to an empty one.
static String	transformPasswordToStars (String password) Transform password to stars

Methods inherited from class java.lang.Object

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

Fields

EMPTY_OBJECT_ARRAY

```
public static final java.lang.Object EMPTY_OBJECT_ARRAY
```

An empty immutable Object array.

SHELL_LOGGER_NAME

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

Name of the logger in console without date.
Constant value: **fr.cnes.doi.logging.shell**

HTTP_LOGGER_NAME

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

Name of the logger for http requests and answers #HTTP_LOGGER_NAME.
Constant value: **fr.cnes.doi.logging.api**

APP_LOGGER_NAME

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

Name of the logger to measure performances #APP_LOGGER_NAME.
Constant value: **fr.cnes.doi.logging.app**

SECURITY_LOGGER_NAME

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

Name of the logger to measure performances #SECURITY_LOGGER_NAME.
Constant value: **fr.cnes.doi.logging.security**

Methods

isEmpty

```
public static boolean isEmpty(CharSequence charSeq)
```

Checks whether the char sequence is empty.

Parameters:

(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	COMPLETE
public static final	NONE
public static final	PARTIAL

Method Summary

static CoverageAnnotation	valueOf (String name)
static CoverageAnnotation[]	values ()

Methods inherited from class java.lang.Enum

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Comparable

compareTo

Fields

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

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

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

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

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

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

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

Method Summary

String	comment()
CoverageAnnotation	coverage()
String	documentName()
String	reqId()
String	reqName()
String	version()

Methods inherited from interface `java.lang.annotation.Annotation`

`annotationType(), equals(), hashCode(), toString()`

Fields

DOI_SRV_010

```
public static final java.lang.String DOI_SRV_010
```

Constant value: **DOI_SRV_010**

DOI_SRV_010_NAME

```
public static final java.lang.String DOI_SRV_010_NAME
```

Constant value: **Création de métadonnées**

DOI_SRV_020

```
public static final java.lang.String DOI_SRV_020
```

Constant value: **DOI_SRV_020**

DOI_SRV_020_NAME

```
public static final java.lang.String DOI_SRV_020_NAME
```

Constant value: **Enregistrement d'un DOI**

DOI_SRV_030

```
public static final java.lang.String DOI_SRV_030
```

Constant value: **DOI_SRV_030**

DOI_SRV_030_NAME

```
public static final java.lang.String DOI_SRV_030_NAME
```

Constant value: **Mise à jour de l'URL de la landing page d'un DOI**

DOI_SRV_040

```
public static final java.lang.String DOI_SRV_040
```

Constant value: **DOI_SRV_040**

DOI_SRV_040_NAME

```
public static final java.lang.String DOI_SRV_040_NAME
```

Constant value: **Mise à jour des métadonnées d'un DOI**

DOI_SRV_050

```
public static final java.lang.String DOI_SRV_050
```

Constant value: **DOI_SRV_050**

DOI_SRV_050_NAME

```
public static final java.lang.String DOI_SRV_050_NAME
```

Constant value: **Désactivation d'un DOI**

DOI_SRV_060

```
public static final java.lang.String DOI_SRV_060
```

Constant value: **DOI_SRV_060**

DOI_SRV_060_NAME

```
public static final java.lang.String DOI_SRV_060_NAME
```

Constant value: **Récupération des métadonnées**

DOI_SRV_070

```
public static final java.lang.String DOI_SRV_070
```

Constant value: **DOI_SRV_070**

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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
```

(continued from last page)

Constant value: **Listing des langues**

DOI_SRV_120

```
public static final java.lang.String DOI_SRV_120
```

Constant value: **DOI_SRV_120**

DOI_SRV_120_NAME

```
public static final java.lang.String DOI_SRV_120_NAME
```

Constant value: **Formatage d'une citation**

DOI_SRV_130

```
public static final java.lang.String DOI_SRV_130
```

Constant value: **DOI_SRV_130**

DOI_SRV_130_NAME

```
public static final java.lang.String DOI_SRV_130_NAME
```

Constant value: **Création d'un suffixe projet**

DOI_SRV_140

```
public static final java.lang.String DOI_SRV_140
```

Constant value: **DOI_SRV_140**

DOI_SRV_140_NAME

```
public static final java.lang.String DOI_SRV_140_NAME
```

Constant value: **Récupération du nom du projet à partir du suffixe projet**

DOI_SRV_150

```
public static final java.lang.String DOI_SRV_150
```

Constant value: **DOI_SRV_150**

DOI_SRV_150_NAME

```
public static final java.lang.String DOI_SRV_150_NAME
```

Constant value: **Création d'un token**

DOI_SRV_180

```
public static final java.lang.String DOI_SRV_180
```

Constant value: **DOI_SRV_180**

DOI_SRV_180_NAME

```
public static final java.lang.String DOI_SRV_180_NAME
```

Constant value: **Information sur le token**

DOI_SRV_190

```
public static final java.lang.String DOI_SRV_190
```

Constant value: **DOI_SRV_190**

DOI_SRV_190_NAME

```
public static final java.lang.String DOI_SRV_190_NAME
```

Constant value: **Visualisation des informations d'un DOI**

DOI_MONIT_010

```
public static final java.lang.String DOI_MONIT_010
```

Constant value: **DOI_MONIT_010**

DOI_MONIT_010_NAME

```
public static final java.lang.String DOI_MONIT_010_NAME
```

Constant value: **Monitoring des temps de réponse**

DOI_MONIT_020

```
public static final java.lang.String DOI_MONIT_020
```

Constant value: **DOI_MONIT_020**

DOI_MONIT_020_NAME

```
public static final java.lang.String DOI_MONIT_020_NAME
```

Constant value: **Monitoring de l'état de DataCite**

(continued from last page)

DOI_ARCHI_010

```
public static final java.lang.String DOI_ARCHI_010
```

Constant value: **DOI_ARCHI_010**

DOI_ARCHI_010_NAME

```
public static final java.lang.String DOI_ARCHI_010_NAME
```

Constant value: **Protocole HTTP et HTTPS pour les API**

DOI_ARCHI_020

```
public static final java.lang.String DOI_ARCHI_020
```

Constant value: **DOI_ARCHI_020**

DOI_ARCHI_020_NAME

```
public static final java.lang.String DOI_ARCHI_020_NAME
```

Constant value: **Logs**

DOI_ARCHI_030

```
public static final java.lang.String DOI_ARCHI_030
```

Constant value: **DOI_ARCHI_030**

DOI_ARCHI_030_NAME

```
public static final java.lang.String DOI_ARCHI_030_NAME
```

Constant value: **Plugins**

DOI_ARCHI_040

```
public static final java.lang.String DOI_ARCHI_040
```

Constant value: **DOI_ARCHI_040**

DOI_ARCHI_040_NAME

```
public static final java.lang.String DOI_ARCHI_040_NAME
```

Constant value: **Chargement des plugins**

DOI_INTER_010

```
public static final java.lang.String DOI_INTER_010
```

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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**

(continued from last page)

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: **Authentication 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: **Authentication 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: **Authentication 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**

(continued from last page)

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
```

(continued from last page)

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()
```

(continued from last page)

fr.cnes.doi.utils.spec Interface Requirements

public interface **Requirements**
extends Annotation

Annotation to allow the use @requirement more than one

Author:

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

Method Summary

Requirement[]	value()
-------------------------------	-------------------------

Methods inherited from interface java.lang.annotation.Annotation

annotationType, equals, hashCode, toString

Methods

value

public [Requirement\[\]](#) **value()**

Package

org.datacite.schema.kernel_4

org.datacite.schema.kernel_4

Class Box

```
java.lang.Object
  |
  +--org.datacite.schema.kernel_4.Box
```

```
public class Box
  extends Object
```

Java class for box complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType name="box">
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <all>
        <element name="westBoundLongitude" type="{http://datacite.org/schema/kernel-4}longitudeType"/>
        <element name="eastBoundLongitude" type="{http://datacite.org/schema/kernel-4}longitudeType"/>
        <element name="southBoundLatitude" type="{http://datacite.org/schema/kernel-4}latitudeType"/>
        <element name="northBoundLatitude" type="{http://datacite.org/schema/kernel-4}latitudeType"/>
      </all>
    </restriction>
  </complexContent>
</complexType>
```

Field Summary

protected	eastBoundLongitude
protected	northBoundLatitude
protected	southBoundLatitude
protected	westBoundLongitude

Constructor Summary

public	Box()
--------	-----------------------

Method Summary

float	<code>getEastBoundLongitude()</code> Gets the value of the eastBoundLongitude property.
float	<code>getNorthBoundLatitude()</code> Gets the value of the northBoundLatitude property.
float	<code>getSouthBoundLatitude()</code> Gets the value of the southBoundLatitude property.
float	<code>getWestBoundLongitude()</code> Gets the value of the westBoundLongitude property.
void	<code>setEastBoundLongitude(float value)</code> Sets the value of the eastBoundLongitude property.
void	<code>setNorthBoundLatitude(float value)</code> Sets the value of the northBoundLatitude property.
void	<code>setSouthBoundLatitude(float value)</code> Sets the value of the southBoundLatitude property.
void	<code>setWestBoundLongitude(float value)</code> 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	CONTACT_PERSON Person with knowledge of how to access, troubleshoot, or otherwise field issues related to the resource.
public static final	DATA_COLLECTOR Person/institution responsible for finding, gathering/collecting data under the guidelines of the author(s) or Principal Investigator (PI).
public static final	DATA_CURATOR Person tasked with reviewing, enhancing, cleaning, or standardizing metadata and the associated data submitted for storage, use, and maintenance within a data centre or repository.
public static final	DATA_MANAGER Person (or organisation with a staff of data managers, such as a data centre) responsible for maintaining the finished resource.
public static final	DISTRIBUTOR Institution tasked with responsibility to generate/disseminate copies of the resource in either electronic or print form.
public static final	EDITOR A person who oversees the details related to the publication format of the resource.
public static final	HOSTING_INSTITUTION Typically, the organisation allowing the resource to be available on the internet through the provision of its hardware/software/operating support.
public static final	OTHER Any person or institution making a significant contribution to the development and/or maintenance of the resource, but whose contribution does not âfitâ other controlled vocabulary for contributorType.
public static final	PRODUCER Typically a person or organisation responsible for the artistry and form of a media product.
public static final	PROJECT_LEADER Person officially designated as head of project team or subâproject team instrumental in the work necessary to development of the resource.
public static final	PROJECT_MANAGER Person officially designated as manager of a project.
public static final	PROJECT_MEMBER Person on the membership list of a designated project/project team.
public static final	REGISTRATION_AGENCY Institution/organisation officially appointed by a Registration Authority to handle specific tasks within a defined area of responsibility.
public static final	REGISTRATION_AUTHORITY A standardsâsetting body from which Registration Agencies obtain official recognition and guidance.
public static final	RELATED_PERSON A person without a specifically defined role in the development of the resource, but who is someone the author wishes to recognize.
public static final	RESEARCH_GROUP Typically refers to a group of individuals with a lab, department, or division; the group has a particular, defined focus of activity.

public static final	<u>RESEARCHER</u> A person involved in analyzing data or the results of an experiment or formal study.
public static final	<u>RIGHTS HOLDER</u> Person or institution owning or managing property rights, including intellectual property rights over the resource.
public static final	<u>SPONSOR</u> 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	<u>SUPERVISOR</u> 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	<u>WORK_PACKAGE_LEADER</u> A Work Package is a recognized data product, not all of which is included in publication.

Method Summary

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

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**

(continued from last page)

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:

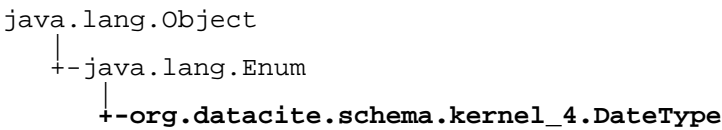
the contributor type

Throws:

`IllegalArgumentException` - - if contributor type not found

org.datacite.schema.kernel_4

Class DateType



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

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

Method Summary

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

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.

(continued from last page)

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

Method Summary

static DescriptionType	fromValue (String v) Returns the description type from the value.
String	value () Returns the value.
static DescriptionType	valueOf (String name)
static DescriptionType[]	values ()

Methods inherited from class `java.lang.Enum`

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `java.lang.Comparable`

`compareTo`

Fields

ABSTRACT

```
public static final org.datacite.schema.kernel_4.DescriptionType ABSTRACT
```

A brief description of the resource and the context in which the resource was created. Recommended for discovery. Use " " to indicate a line break for improved rendering of multiple paragraphs, but otherwise no html markup.

Example: <http://data.datacite.org/10.1594/PANGAEA.771774>

METHODS

```
public static final org.datacite.schema.kernel_4.DescriptionType METHODS
```

The methodology employed for the study or research. Recommended for discovery.

For example, see section "Sampling, Processing and Quality Control Methods" in the following dataset record:
<https://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:

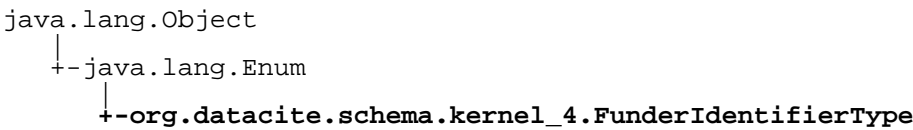
v - value

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	CROSSREF_FUNDER_ID
public static final	GRID
public static final	ISNI
public static final	OTHER

Method Summary	
static FunderIdentifierType	fromValue (String v) Returns the FunderIdentifierType from the value
String	value () Returns the value.
static FunderIdentifierType	valueOf (String name)

<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	ORGANIZATIONAL
public static final	PERSONAL

Method Summary

static NameType	fromValue (String v)
String	value ()
static NameType	valueOf (String name)
static NameType[]	values ()

Methods inherited from class java.lang.Enum

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

Methods inherited from class `java.lang.Object`

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

Methods inherited from interface `java.lang.Comparable`

`compareTo`

Fields

ORGANIZATIONAL

`public static final org.datacite.schema.kernel_4.NameType ORGANIZATIONAL`

PERSONAL

`public static final org.datacite.schema.kernel_4.NameType PERSONAL`

Methods

values

`public static NameType[] values()`

valueOf

`public static NameType valueOf(String name)`

value

`public String value()`

fromValue

`public static NameType fromValue(String v)`

org.datacite.schema.kernel_4 Class ObjectFactory

java.lang.Object

└-org.datacite.schema.kernel_4.ObjectFactory

public class **ObjectFactory**
extends Object

This object contains factory methods for each Java content interface and Java element interface generated in the org.datacite.schema.kernel_4 package.

An ObjectFactory allows you to programatically construct new instances of the Java representation for XML content. The Java representation of XML content can consist of schema derived interfaces and classes representing the binding of schema type definitions, element declarations and model groups. Factory methods for each of these are provided in this class.

Constructor Summary

public	ObjectFactory() Create a new ObjectFactory that can be used to create new instances of schema derived classes for package: org.datacite.schema.kernel_4
--------	--

Method Summary

Box	createBox() Create an instance of Box
Point	createPoint() Create an instance of Point
Resource	createResource() Create an instance of Resource
Resource.AlternateIdentifiers	createResourceAlternateIdentifiers() Create an instance of Resource.AlternateIdentifiers
Resource.AlternateIdentifiers.AlternateIdentifier	createResourceAlternateIdentifiersAlternateIdentifier() Create an instance of Resource.AlternateIdentifiers.AlternateIdentifier
Resource.Contributors	createResourceContributors() Create an instance of Resource.Contributors
Resource.Contributors.Contributor	createResourceContributorsContributor() Create an instance of Resource.Contributors.Contributor
Resource.Contributors.Contributor.ContributorName	createResourceContributorsContributorContributorName() Create an instance of Resource.Contributors.Contributor.ContributorName
Resource.Contributors.Contributor.NameIdentifier	createResourceContributorsContributorNameIdentifier() Create an instance of Resource.Contributors.Contributor.NameIdentifier
Resource.Creators	createResourceCreators() Create an instance of Resource.Creators

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

Resource.ResourceType	createResourceResourceType() Create an instance of Resource.ResourceType
Resource.RightsList	createResourceRightsList() Create an instance of Resource.RightsList
Resource.RightsList.Rights	createResourceRightsListRights() Create an instance of Resource.RightsList.Rights
Resource.Sizes	createResourceSizes() Create an instance of Resource.Sizes
Resource.Subjects	createResourceSubjects() Create an instance of Resource.Subjects
Resource.Subjects.Subject	createResourceSubjectsSubject() Create an instance of Resource.Subjects.Subject
Resource.Titles	createResourceTitles() Create an instance of Resource.Titles
Resource.Titles.Title	createResourceTitlesTitle() Create an instance of Resource.Titles.Title

Methods inherited from class `java.lang.Object`

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

Constructors

ObjectFactory

```
public ObjectFactory()
```

Create a new ObjectFactory that can be used to create new instances of schema derived classes for package:
`org.datacite.schema.kernel_4`

Methods

createResource

```
public Resource createResource()
```

Create an instance of [Resource](#)

Returns:

the resource

createResourceFundingReferences

```
public Resource.FundingReferences createResourceFundingReferences()
```

Create an instance of [Resource.FundingReferences](#)

Returns:

(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	pointLatitude
protected	pointLongitude

Constructor Summary

public	Point ()
--------	--------------------------

Method Summary

float	getPointLatitude () Gets the value of the pointLatitude property.
float	getPointLongitude () Gets the value of the pointLongitude property.
void	setPointLatitude (float value) Sets the value of the pointLatitude property.

void

[`setPointLongitude`](#)(float value)

Sets the value of the pointLongitude property.

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

Fields

pointLongitude

protected float **pointLongitude**

pointLatitude

protected float **pointLatitude**

Constructors

Point

public **Point**()

Methods

getPointLongitude

public float **getPointLongitude**()

Gets the value of the pointLongitude property.

Returns:

the longitude

setPointLongitude

public void **setPointLongitude**(float value)

Sets the value of the pointLongitude property.

Parameters:

value - the longitude

getPointLatitude

public float **getPointLatitude**()

Gets the value of the pointLatitude property.

(continued from last page)

Returns:

the latitude

setPointLatitude

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

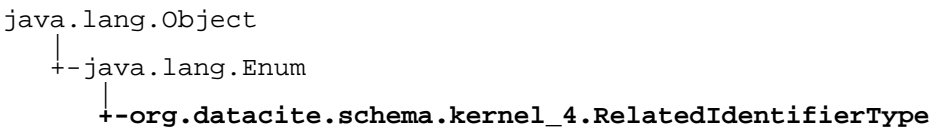
Sets the value of the pointLatitude property.

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	AR_XIV arXiv identifier; arXiv.org is a repository of preprints of scientific papers in the fields of mathematics, physics, astronomy, computer science, quantitative biology, statistics, and quantitative finance.

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

Method Summary

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

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

Method Summary

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

String	<code>value()</code> Returns the value.
static <code>RelationType</code>	<code>valueOf(String name)</code>
static <code>RelationType[]</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

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>
<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>
<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	Resource.AlternateIdentifiers Resource.AlternateIdentifiers
class	Resource.Contributors Resource.Contributors
class	Resource.Creators Resource.Creators
class	Resource.Dates Resource.Dates
class	Resource.Descriptions Resource.Descriptions

class	Resource.Formats Resource.Formats
class	Resource.FundingReferences Resource.FundingReferences
class	Resource.GeoLocations Resource.GeoLocations
class	Resource.Identifier Resource.Identifier
class	Resource.RelatedIdentifiers Resource.RelatedIdentifiers
class	Resource.ResourceType Resource.ResourceType
class	Resource.RightsList Resource.RightsList
class	Resource.Sizes Resource.Sizes
class	Resource.Subjects Resource.Subjects
class	Resource.Titles Resource.Titles

Field Summary

protected	alternateIdentifiers
protected	contributors
protected	creators
protected	dates
protected	descriptions
protected	formats
protected	fundingReferences
protected	geoLocations
protected	identifier
protected	language
protected	publicationYear

protected	publisher
protected	relatedIdentifiers
protected	resourceType
protected	rightsList
protected	sizes
protected	subjects
protected	titles
protected	version

Constructor Summary

public	Resource ()
--------	------------------------------

Method Summary

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

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

void	<code>setRelatedIdentifiers(Resource.RelatedIdentifiers value)</code> Sets the value of the relatedIdentifiers property.
void	<code>setResourceType(Resource.ResourceType value)</code> Sets the value of the resourceType property.
void	<code>setRightsList(Resource.RightsList value)</code> Sets the value of the rightsList property.
void	<code>setSizes(Resource.Sizes value)</code> Sets the value of the sizes property.
void	<code>setSubjects(Resource.Subjects value)</code> Sets the value of the subjects property.
void	<code>setTitles(Resource.Titles value)</code> Sets the value of the titles property.
void	<code>setVersion(String value)</code> 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	Resource.AlternateIdentifiers.AlternateIdentifier Resource.AlternateIdentifiers.AlternateIdentifier
-------	--

Field Summary

protected	alternateIdentifier
-----------	-------------------------------------

Constructor Summary

public	AlternateIdentifiers()
--------	--

Method Summary

List	getAlternateIdentifier() Gets the value of the alternateIdentifier property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

alternateIdentifier

`protected java.util.List alternateIdentifier`

Constructors

AlternateIdentifiers

`public AlternateIdentifiers()`

Methods

getAlternateIdentifier

`public List getAlternateIdentifier()`

Gets the value of the alternateIdentifier property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the alternateIdentifier property.

For example, to add a new item, do as follows:

```
getAlternateIdentifier().add(newItem);
```

Objects of the following type(s) are allowed in the list [Resource.AlternateIdentifiers.AlternateIdentifier](#)

Returns:

the alternateIdentifier

org.datacite.schema.kernel_4 Class Resource.AlternateIdentifiers.AlternateIdentifier

java.lang.Object

└─org.datacite.schema.kernel_4.Resource.AlternateIdentifiers.AlternateIdentifier

public static class **Resource.AlternateIdentifiers.AlternateIdentifier**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="alternateIdentifierType" use="required"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	alternateIdentifierType
protected	value

Constructor Summary

public	AlternateIdentifier()
--------	---------------------------------------

Method Summary

String	getAlternateIdentifierType() Gets the value of the alternateIdentifierType property.
String	getValue() Gets the value of the value property.
void	setAlternateIdentifierType(String value) Sets the value of the alternateIdentifierType property.
void	setValue(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

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

Fields

value

```
protected java.lang.String value
```

alternateIdentifierType

```
protected java.lang.String alternateIdentifierType
```

Constructors

AlternateIdentifier

```
public AlternateIdentifier()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:

possible object is java.lang.String

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:

value - allowed object is java.lang.String

getAlternateIdentifierType

```
public String getAlternateIdentifierType()
```

Gets the value of the alternateIdentifierType property.

Returns:

possible object is java.lang.String

(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	Resource.Contributors.Contributor Resource.Contributors.Contributor
-------	--

Field Summary

protected	contributor
-----------	-----------------------------

Constructor Summary

public	Contributors ()
--------	----------------------------------

Method Summary

List	getContributor () Gets the value of the contributor property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

contributor

protected java.util.List **contributor**

Constructors

Contributors

public **Contributors**()

Methods

getContributor

public List **getContributor**()

(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	Resource.Contributors.Contributor.ContributorName Resource.Contributors.Contributor.ContributorName
class	Resource.Contributors.Contributor.NameIdentifier Resource.Contributors.Contributor.NameIdentifier

Field Summary

protected	affiliation
protected	contributorName
protected	contributorType
protected	familyName
protected	givenName
protected	nameIdentifier

Constructor Summary

public	Contributor ()
--------	--------------------------------

Method Summary

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

Methods inherited from class java.lang.Object

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

Fields

contributorName

protected
org.datacite.schema.kernel_4.Resource.Contributors.Contributor.ContributorName
contributorName

givenName

protected java.lang.String **givenName**

familyName

protected java.lang.String **familyName**

nameIdentifier

protected java.util.List **nameIdentifier**

affiliation

protected java.util.List **affiliation**

contributorType

protected org.datacite.schema.kernel_4.ContributorType **contributorType**

Constructors

Contributor

public **Contributor**()

Methods

getContributorName

public [Resource.Contributors.Contributor.ContributorName](#) **getContributorName()**

Gets the value of the contributorName property.

(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	nameType
protected	value

Constructor Summary

public	ContributorName()
--------	-----------------------------------

Method Summary

NameType	getNameType() Gets the value of the nameType property.
String	getValue() Gets the value of the value property.
void	setNameType(NameType value) Sets the value of the nameType property.
void	setValue(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

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

Fields

value

protected java.lang.String **value**

nameType

protected org.datacite.schema.kernel_4.NameType **nameType**

Constructors

ContributorName

```
public ContributorName()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:

possible object is java.lang.String

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:

value - allowed object is java.lang.String

getNameType

```
public NameType getNameType()
```

Gets the value of the nameType property.

Returns:

possible object is [NameType](#)

(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	nameIdentifierScheme
protected	schemeURI
protected	value

Constructor Summary

public	NameIdentifier()
--------	----------------------------------

Method Summary

String	getNameIdentifierScheme() Gets the value of the nameIdentifierScheme property.
String	getSchemeURI() Gets the value of the schemeURI property.
String	getValue() Gets the value of the value property.

void	<code>setNameIdentifierScheme</code> (String value) Sets the value of the nameIdentifierScheme property.
void	<code>setSchemeURI</code> (String value) Sets the value of the schemeURI property.
void	<code>setValue</code> (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	Resource.Creators.Creator Resource.Creators.Creator
-------	--

Field Summary

protected	creator
-----------	-------------------------

Constructor Summary

public	Creators()
--------	----------------------------

Method Summary

List	getCreator() Gets the value of the creator property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

creator

protected java.util.List **creator**

Constructors

Creators

public **Creators()**

Methods

getCreator

public List **getCreator()**

(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	Resource.Creators.Creator.CreatorName Resource.Creators.Creator.CreatorName
class	Resource.Creators.Creator.NameIdentifier Resource.Creators.Creator.NameIdentifier

Field Summary

protected	affiliation
protected	creatorName
protected	familyName
protected	givenName
protected	nameIdentifier

Constructor Summary

public	Creator ()
--------	----------------------------

Method Summary

List	getAffiliation () Gets the value of the affiliation property.
Resource.Creators.Creator.CreatorName	getCreatorName () Gets the value of the creatorName property.
String	getFamilyName () Gets the value of the familyName property.
String	getGivenName () Gets the value of the givenName property.
List	getNameIdentifier () Gets the value of the nameIdentifier property.
void	setCreatorName (Resource.Creators.Creator.CreatorName value) Sets the value of the creatorName property.
void	setFamilyName (String value) Sets the value of the familyName property.
void	setGivenName (String value) Sets the value of the givenName property.

Methods inherited from class java.lang.Object

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

Fields

creatorName

protected org.datacite.schema.kernel_4.Resource.Creators.Creator.CreatorName
creatorName

givenName

protected java.lang.String **givenName**

familyName

protected java.lang.String **familyName**

nameIdentifier

protected java.util.List **nameIdentifier**

affiliation

protected java.util.List **affiliation**

Constructors

Creator

public **Creator**()

Methods

getCreatorName

public [Resource.Creators.Creator.CreatorName](#) **getCreatorName**()

Gets the value of the creatorName property.

Returns:

possible object is [Resource.Creators.Creator.CreatorName](#)

setCreatorName

public void **setCreatorName**([Resource.Creators.Creator.CreatorName](#) value)

Sets the value of the creatorName property.

Parameters:

value - allowed object is [Resource.Creators.Creator.CreatorName](#)

getGivenName

public String **getGivenName**()

Gets the value of the givenName property.

(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	nameType
protected	value

Constructor Summary

public	CreatorName()
--------	-------------------------------

Method Summary

NameType	getNameType() Gets the value of the nameType property.
String	getValue() Gets the value of the value property.
void	setNameType(NameType value) Sets the value of the nameType property.
void	setValue(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

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

Fields

value

protected java.lang.String **value**

nameType

protected org.datacite.schema.kernel_4.NameType **nameType**

Constructors

CreatorName

public **CreatorName**()

Methods

getValue

public String **getValue**()

Gets the value of the value property.

Returns:

possible object is java.lang.String

setValue

public void **setValue**(String value)

Sets the value of the value property.

Parameters:

value - allowed object is java.lang.String

getNameType

public [NameType](#) **getNameType**()

Gets the value of the nameType property.

Returns:

possible object is [NameType](#)

(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	nameIdentifierScheme
protected	schemeURI
protected	value

Constructor Summary

public	NameIdentifier()
--------	----------------------------------

Method Summary

String	getNameIdentifierScheme() Gets the value of the nameIdentifierScheme property.
String	getSchemeURI() Gets the value of the schemeURI property.
String	getValue() Gets the value of the value property.

void	<code>setNameIdentifierScheme</code> (String value) Sets the value of the nameIdentifierScheme property.
void	<code>setSchemeURI</code> (String value) Sets the value of the schemeURI property.
void	<code>setValue</code> (String value) Sets the value of the value property.

Methods inherited from class `java.lang.Object`

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

Fields

value

protected java.lang.String **value**

nameIdentifierScheme

protected java.lang.String **nameIdentifierScheme**

schemeURI

protected java.lang.String **schemeURI**

Constructors

NameIdentifier

public **NameIdentifier**()

Methods

getValue

public String **getValue**()

Gets the value of the value property.

Returns:

possible object is java.lang.String

(continued from last page)

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:

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

getNameIdentifierScheme

```
public String getNameIdentifierScheme()
```

Gets the value of the nameIdentifierScheme property.

Returns:

possible object is `java.lang.String`

setNameIdentifierScheme

```
public void setNameIdentifierScheme(String value)
```

Sets the value of the nameIdentifierScheme property.

Parameters:

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

getSchemeURI

```
public String getSchemeURI()
```

Gets the value of the schemeURI property.

Returns:

possible object is `java.lang.String`

setSchemeURI

```
public void setSchemeURI(String value)
```

Sets the value of the schemeURI property.

Parameters:

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

org.datacite.schema.kernel_4 Class Resource.Dates

java.lang.Object

└─org.datacite.schema.kernel_4.Resource.Dates

public static class **Resource.Dates**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="date" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <simpleContent>
              <extension base="<http://www.w3.org/2001/XMLSchema>string">
                <attribute name="dateType" use="required"
type="{http://datacite.org/schema/kernel-4}dateType" />
                <attribute name="dateInformation"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
              </extension>
            </simpleContent>
          </complexType>
        </element>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	Resource.Dates.Date Resource.Dates.Date
-------	--

Field Summary

protected	date
-----------	----------------------

Constructor Summary

public	Dates()
--------	-------------------------

Method Summary

List	getDate() Gets the value of the date property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

date

protected java.util.List **date**

Constructors

Dates

public **Dates**()

Methods

getDate

public List **getDate**()

Gets the value of the date property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the date property.

For example, to add a new item, do as follows:

```
getDate().add(newItem);
```

Objects of the following type(s) are allowed in the list [Resource.Dates.Date](#)

Returns:

the date

org.datacite.schema.kernel_4

Class Resource.Dates.Date

```
java.lang.Object
├--org.datacite.schema.kernel_4.Resource.Dates.Date
```

public static class **Resource.Dates.Date**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="dateType" use="required" type="{http://datacite.org/schema/kernel-4}dateType" />
      <attribute name="dateInformation"
type="{http://www.w3.org/2001/XMLSchema}anySimpleType" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	dateInformation
protected	dateType
protected	value

Constructor Summary

public	Date()
--------	------------------------

Method Summary

String	getDateInformation() Gets the value of the dateInformation property.
DateType	getDateType() Gets the value of the dateType property.
String	getValue() Gets the value of the value property.

void	<code>setDateInformation</code> (String value) Sets the value of the <code>dateInformation</code> property.
void	<code>setDateType</code> (<code>DateType</code> value) Sets the value of the <code>dateType</code> property.
void	<code>setValue</code> (String value) Sets the value of the <code>value</code> 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	description
-----------	-----------------------------

Constructor Summary

public	Descriptions ()
--------	---------------------------------

Method Summary

List	getDescription () Gets the value of the description property.
------	--

Methods inherited from class `java.lang.Object`

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

Fields

description

protected `java.util.List` **description**

Constructors

Descriptions

public **Descriptions**()

Methods

getDescription

public `List` **getDescription**()

(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	content
protected	descriptionType
protected	lang

Constructor Summary

public	Description()
--------	-------------------------------

Method Summary

List	<code>getContent()</code> Gets the value of the content property.
<code>DescriptionType</code>	<code>getDescriptionType()</code> Gets the value of the descriptionType property.
String	<code>getLang()</code> Gets the value of the lang property.
void	<code>setDescriptionType>DescriptionType</code> value) Sets the value of the descriptionType property.
void	<code>setLang</code> (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	format
-----------	------------------------

Constructor Summary

public	Formats()
--------	---------------------------

Method Summary

List	getFormat() Gets the value of the format property.
------	---

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

Fields

(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	Resource.FundingReferences.FundingReference Resource.FundingReferences.FundingReference
-------	--

Field Summary

protected	fundingReference
-----------	----------------------------------

Constructor Summary

public	FundingReferences()
--------	-------------------------------------

Method Summary

List	getFundingReference() Gets the value of the fundingReference property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

fundingReference

protected java.util.List **fundingReference**

Constructors

FundingReferences

public **FundingReferences()**

Methods

getFundingReference

public List **getFundingReference()**

(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	Resource.FundingReferences.FundingReference.AwardNumber Resource.FundingReferences.FundingReference.AwardNumber
class	Resource.FundingReferences.FundingReference.FunderIdentifier Resource.FundingReferences.FundingReference.FunderIdentifier

Field Summary

protected	awardNumber
protected	awardTitle
protected	funderIdentifier
protected	funderName

Constructor Summary

public	FundingReference ()
--------	--------------------------------------

Method Summary

Resource.FundingReferences.FundingReference.AwardNumber	getAwardNumber () Gets the value of the awardNumber property.
String	getAwardTitle () Gets the value of the awardTitle property.
Resource.FundingReferences.FundingReference.FunderIdentifier	getFunderIdentifier () Gets the value of the funderIdentifier property.
String	getFunderName () Gets the value of the funderName property.
void	setAwardNumber (Resource.FundingReferences.FundingReference.AwardNumber value) Sets the value of the awardNumber property.
void	setAwardTitle (String value) Sets the value of the awardTitle property.
void	setFunderIdentifier (Resource.FundingReferences.FundingReference.FunderIdentifier value) Sets the value of the funderIdentifier property.
void	setFunderName (String value) Sets the value of the funderName property.

Methods inherited from class `java.lang.Object`

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

Fields

funderName

protected java.lang.String **funderName**

(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	awardURI
protected	value

Constructor Summary

public	AwardNumber ()
--------	--------------------------------

Method Summary

String	getAwardURI () Gets the value of the awardURI property.
String	getValue () Gets the value of the value property.
void	setAwardURI (String value) Sets the value of the awardURI property.
void	setValue (String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

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

Fields

value

protected java.lang.String **value**

awardURI

protected java.lang.String **awardURI**

Constructors

AwardNumber

```
public AwardNumber()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:

possible object is java.lang.String

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:

value - allowed object is java.lang.String

getAwardURI

```
public String getAwardURI()
```

Gets the value of the awardURI property.

Returns:

possible object is java.lang.String

(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	funderIdentifierType
protected	value

Constructor Summary

public	FunderIdentifier()
--------	------------------------------------

Method Summary

FunderIdentifierType	getFunderIdentifierType() Gets the value of the funderIdentifierType property.
String	getValue() Gets the value of the value property.
void	setFunderIdentifierType(FunderIdentifierType value) Sets the value of the funderIdentifierType property.
void	setValue(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

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

Fields

value

protected java.lang.String **value**

funderIdentifierType

protected org.datacite.schema.kernel_4.FunderIdentifierType **funderIdentifierType**

Constructors

FunderIdentifier

```
public FunderIdentifier()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:

possible object is java.lang.String

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:

value - allowed object is java.lang.String

getFunderIdentifierType

```
public FunderIdentifierType getFunderIdentifierType()
```

Gets the value of the funderIdentifierType property.

Returns:

possible object is [FunderIdentifierType](#)

(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	Resource.GeoLocations.GeoLocation Resource.GeoLocations.GeoLocation
-------	--

Field Summary

protected	geoLocation
-----------	-----------------------------

Constructor Summary

public	GeoLocations()
--------	--------------------------------

Method Summary

List	getGeoLocation() Gets the value of the geoLocation property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

geoLocation

protected `java.util.List` **geoLocation**

Constructors

GeoLocations

public **GeoLocations()**

Methods

getGeoLocation

public List **getGeoLocation()**

Gets the value of the geoLocation property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the geoLocation property.

For example, to add a new item, do as follows:

```
getGeoLocation().add(newItem);
```

Objects of the following type(s) are allowed in the list [Resource.GeoLocations.GeoLocation](#)

Returns:

the geoLocation

org.datacite.schema.kernel_4 Class Resource.GeoLocations.GeoLocation

java.lang.Object

└─org.datacite.schema.kernel_4.Resource.GeoLocations.GeoLocation

public static class **Resource.GeoLocations.GeoLocation**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <choice maxOccurs="unbounded">
        <element name="geoLocationPlace" type="{http://www.w3.org/2001/XMLSchema}anyType"
minOccurs="0"/>
        <element name="geoLocationPoint" type="{http://datacite.org/schema/kernel-4}point"
minOccurs="0"/>
        <element name="geoLocationBox" type="{http://datacite.org/schema/kernel-4}box"
minOccurs="0"/>
        <element name="geoLocationPolygon" maxOccurs="unbounded" minOccurs="0">
          <complexType>
            <complexContent>
              <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
                <sequence>
                  <element name="polygonPoint" type="{http://datacite.org/schema/kernel-
4}point" maxOccurs="unbounded" minOccurs="4"/>
                  <element name="inPolygonPoint" type="{http://datacite.org/schema/kernel-
4}point" minOccurs="0"/>
                </sequence>
              </restriction>
            </complexContent>
          </complexType>
        </element>
      </choice>
    </restriction>
  </complexContent>
</complexType>
```

Nested Class Summary

class	Resource.GeoLocations.GeoLocation.GeoLocationPolygon Resource.GeoLocations.GeoLocation.GeoLocationPolygon
-------	--

Field Summary

protected

[geoLocationPlaceOrGeoLocationPointOrGeoLocationBox](#)

Constructor Summary

public

[GeoLocation\(\)](#)

Method Summary

List

[getGeoLocationPlaceOrGeoLocationPointOrGeoLocationBox\(\)](#)

Gets the value of the geoLocationPlaceOrGeoLocationPointOrGeoLocationBox property.

Methods inherited from class `java.lang.Object`

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

Fields

geoLocationPlaceOrGeoLocationPointOrGeoLocationBox

protected `java.util.List` **geoLocationPlaceOrGeoLocationPointOrGeoLocationBox**

Constructors

GeoLocation

public **GeoLocation()**

Methods

getGeoLocationPlaceOrGeoLocationPointOrGeoLocationBox

public `List` **getGeoLocationPlaceOrGeoLocationPointOrGeoLocationBox()**

(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 null null null java.lang.Object [Point](#) [Box](#) [Resource.GeoLocations.GeoLocation.GeoLocationPolygon](#)

Returns:

the geoLocationPlaceOrGeoLocationPointOrGeoLocationBox

org.datacite.schema.kernel_4 Class Resource.GeoLocations.GeoLocation.GeoLocationPolygon

java.lang.Object

└─org.datacite.schema.kernel_4.Resource.GeoLocations.GeoLocation.GeoLocationPolygon

public static class **Resource.GeoLocations.GeoLocation.GeoLocationPolygon**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <complexContent>
    <restriction base="{http://www.w3.org/2001/XMLSchema}anyType">
      <sequence>
        <element name="polygonPoint" type="{http://datacite.org/schema/kernel-4}point"
maxOccurs="unbounded" minOccurs="4"/>
        <element name="inPolygonPoint" type="{http://datacite.org/schema/kernel-4}point"
minOccurs="0"/>
      </sequence>
    </restriction>
  </complexContent>
</complexType>
```

Field Summary

protected	inPolygonPoint
protected	polygonPoint

Constructor Summary

public	GeoLocationPolygon()
--------	--------------------------------------

Method Summary

Point	getInPolygonPoint() Gets the value of the inPolygonPoint property.
List	getPolygonPoint() Gets the value of the polygonPoint property.
void	setInPolygonPoint(Point value) Sets the value of the inPolygonPoint property.

Methods inherited from class java.lang.Object

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

Fields

polygonPoint

```
protected java.util.List polygonPoint
```

inPolygonPoint

```
protected org.datacite.schema.kernel_4.Point inPolygonPoint
```

Constructors

GeoLocationPolygon

```
public GeoLocationPolygon()
```

Methods

getPolygonPoint

```
public List getPolygonPoint()
```

Gets the value of the polygonPoint property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the polygonPoint property.

For example, to add a new item, do as follows:

```
getPolygonPoint().add(newItem);
```

Objects of the following type(s) are allowed in the list [Point](#)

Returns:

the polygon

getInPolygonPoint

```
public Point getInPolygonPoint()
```

Gets the value of the inPolygonPoint property.

(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	IDENTIFIER_TYPE Value: DOI
protected	value

Constructor Summary

public	Identifier()
--------	------------------------------

Method Summary

String	getValue() Gets the value of the value property.
void	setValue(String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

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

(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	Resource.RelatedIdentifiers.RelatedIdentifier Resource.RelatedIdentifiers.RelatedIdentifier
-------	--

Field Summary

protected	relatedIdentifier
-----------	-----------------------------------

Constructor Summary

public	RelatedIdentifiers()
--------	--------------------------------------

Method Summary

List	getRelatedIdentifier() Gets the value of the relatedIdentifier property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

relatedIdentifier

protected `java.util.List` **relatedIdentifier**

Constructors

RelatedIdentifiers

public **RelatedIdentifiers()**

Methods

getRelatedIdentifier

public List **getRelatedIdentifier()**

(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	relatedIdentifierType
protected	relatedMetadataScheme
protected	relationType
protected	resourceTypeGeneral
protected	schemeType
protected	schemeURI
protected	value

Constructor Summary

public	<u>RelatedIdentifier</u> ()
--------	--

Method Summary

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

Constructor Summary

public	ResourceType ()
--------	----------------------------------

Method Summary

ResourceType	getResourceTypeGeneral () Gets the value of the resourceTypeGeneral property.
String	getValue () Gets the value of the value property.
void	setResourceTypeGeneral (ResourceType value) Sets the value of the resourceTypeGeneral property.
void	setValue (String value) Sets the value of the value property.

Methods inherited from class java.lang.Object

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

Fields

value

```
protected java.lang.String value
```

resourceTypeGeneral

```
protected org.datacite.schema.kernel_4.ResourceType resourceTypeGeneral
```

Constructors

ResourceType

```
public ResourceType()
```

Methods

getValue

```
public String getValue()
```

Gets the value of the value property.

Returns:

possible object is java.lang.String

setValue

```
public void setValue(String value)
```

Sets the value of the value property.

Parameters:

value - allowed object is java.lang.String

getResourceTypeGeneral

```
public ResourceType getResourceTypeGeneral()
```

Gets the value of the resourceTypeGeneral property.

Returns:

possible object is [ResourceType](#)

(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	Resource.RightsList.Rights Resource.RightsList.Rights
-------	--

Field Summary

protected	rights
-----------	------------------------

Constructor Summary

public	RightsList()
--------	------------------------------

Method Summary

List

[getRights\(\)](#)

Gets the value of the rights property.

Methods inherited from class `java.lang.Object`

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

Fields

rights

`protected java.util.List rights`

Constructors

RightsList

`public RightsList()`

Methods

getRights

`public List getRights()`

Gets the value of the rights property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the rights property.

For example, to add a new item, do as follows:

```
getRights().add(newItem);
```

Objects of the following type(s) are allowed in the list [Resource.RightsList.Rights](#)

Returns:

the rights

org.datacite.schema.kernel_4 Class Resource.RightsList.Rights

java.lang.Object

└─org.datacite.schema.kernel_4.Resource.RightsList.Rights

public static class **Resource.RightsList.Rights**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="rightsURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
      <attribute ref="{http://www.w3.org/XML/1998/namespace}lang" />
    </extension>
  </simpleContent>
</complexType>
```

Field Summary

protected	lang
protected	rightsURI
protected	value

Constructor Summary

public	Rights()
--------	--------------------------

Method Summary

String	getLang() Gets the value of the lang property.
String	getRightsURI() Gets the value of the rightsURI property.
String	getValue() Gets the value of the value property.
void	setLang(String value) Sets the value of the lang property.

void	<code>setRightsURI</code> (String value) Sets the value of the rightsURI property.
void	<code>setValue</code> (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	size
-----------	----------------------

Constructor Summary

public	Sizes()
--------	-------------------------

Method Summary

List	getSize() Gets the value of the size property.
------	---

Methods inherited from class java.lang.Object

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

Fields

(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	Resource.Subjects.Subject Resource.Subjects.Subject
-------	--

Field Summary

protected	subject
-----------	-------------------------

Constructor Summary

public	Subjects()
--------	----------------------------

Method Summary

List	getSubject() Gets the value of the subject property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

subject

protected `java.util.List` **subject**

Constructors

Subjects

public **Subjects()**

Methods

getSubject

public `List` **getSubject()**

Gets the value of the subject property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the subject property.

For example, to add a new item, do as follows:

```
getSubject().add(newItem);
```

Objects of the following type(s) are allowed in the list [Resource.Subjects.Subject](#)

Returns:

the subject

org.datacite.schema.kernel_4 Class Resource.Subjects.Subject

java.lang.Object

└─org.datacite.schema.kernel_4.Resource.Subjects.Subject

public static class **Resource.Subjects.Subject**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://www.w3.org/2001/XMLSchema>string">
      <attribute name="subjectScheme" type="{http://www.w3.org/2001/XMLSchema}anySimpleType"
    />
    <attribute name="schemeURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
    <attribute name="valueURI" type="{http://www.w3.org/2001/XMLSchema}anyURI" />
    <attribute ref="{http://www.w3.org/XML/1998/namespace}lang" />
  </extension>
</simpleContent>
</complexType>
```

Field Summary

protected	lang
protected	schemeURI
protected	subjectScheme
protected	value
protected	valueURI

Constructor Summary

public	Subject()
--------	---------------------------

Method Summary

String	getLang() Gets the value of the lang property.
--------	---

String	<code>getSchemeURI()</code> Gets the value of the schemeURI property.
String	<code>getSubjectScheme()</code> Gets the value of the subjectScheme property.
String	<code>getValue()</code> Gets the value of the value property.
String	<code>getValueURI()</code> Gets the value of the valueURI property.
void	<code>setLang(String value)</code> Sets the value of the lang property.
void	<code>setSchemeURI(String value)</code> Sets the value of the schemeURI property.
void	<code>setSubjectScheme(String value)</code> Sets the value of the subjectScheme property.
void	<code>setValue(String value)</code> Sets the value of the value property.
void	<code>setValueURI(String value)</code> 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	Resource.Titles.Title Resource.Titles.Title
-------	--

Field Summary

protected	title
-----------	-----------------------

Constructor Summary

public	Titles()
--------	--------------------------

Method Summary

List	getTitle() Gets the value of the title property.
------	---

Methods inherited from class `java.lang.Object`

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

Fields

title

protected java.util.List **title**

Constructors

Titles

public **Titles**()

Methods

getTitle

public List **getTitle**()

Gets the value of the title property.

This accessor method returns a reference to the live list, not a snapshot. Therefore any modification you make to the returned list will be present inside the JAXB object. This is why there is not a `set` method for the title property.

For example, to add a new item, do as follows:

```
getTitle().add(newItem);
```

Objects of the following type(s) are allowed in the list [Resource.Titles.Title](#)

Returns:

the title

org.datacite.schema.kernel_4

Class Resource.Titles.Title

```
java.lang.Object
├--org.datacite.schema.kernel_4.Resource.Titles.Title
```

public static class **Resource.Titles.Title**
extends Object

Java class for anonymous complex type.

The following schema fragment specifies the expected content contained within this class.

```
<complexType>
  <simpleContent>
    <extension base="<http://datacite.org/schema/kernel-4>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	lang
protected	titleType
protected	value

Constructor Summary	
public	Title()

Method Summary	
String	getLang() Gets the value of the lang property.
TitleType	getTitleType() Gets the value of the titleType property.
String	getValue() Gets the value of the value property.
void	setLang(String value) Sets the value of the lang property.

void	setTitleType (TitleType value) Sets the value of the titleType property.
void	setValue (String value) Sets the value of the value property.

Methods inherited from class `java.lang.Object`

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

Fields

value

protected `java.lang.String` **value**

titleType

protected `org.datacite.schema.kernel_4.TitleType` **titleType**

lang

protected `java.lang.String` **lang**

Constructors

Title

public **Title**()

Methods

getValue

public `String` **getValue**()

Gets the value of the value property.

Returns:

possible object is `java.lang.String`

setValue

public void **setValue**(String value)

Sets the value of the value property.

(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

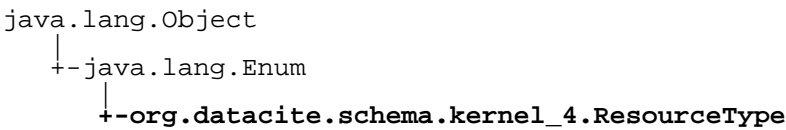
```
public void setLang(String value)
```

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

public static final	DATA_PAPER
public static final	DATASET Data encoded in a defined structure.
public static final	EVENT A nonâpersistent, timeâbased occurrence.
public static final	IMAGE A visual representation other than text.
public static final	INTERACTIVE_RESOURCE A resource requiring interaction from the user to be understood, executed, or experienced.
public static final	MODEL An abstract, conceptual, graphical, mathematical or visualization model that represents empirical objects, phenomena, or physical processes.
public static final	OTHER If selected, supply a value for ResourceType.
public static final	PHYSICAL_OBJECT An inanimate, threeâdimensional object or substance.
public static final	SERVICE A system that provides one or more functions of value to the endâuser.
public static final	SOFTWARE A computer program in source code (text) or compiled form.
public static final	SOUND A resource primarily intended to be heard.
public static final	TEXT A resource consisting primarily of words for reading.
public static final	WORKFLOW A structured series of steps which can be executed to produce a final outcome, allowing users a means to specify and enact their work in a more reproducible manner.

Method Summary

static ResourceType	fromValue (String v) Gets the resource type from a value
String	value () Gets the value.
static ResourceType	valueOf (String name)
static ResourceType[]	values ()

Methods inherited from class java.lang.Enum

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Comparable

compareTo

Fields

AUDIOVISUAL

public static final org.datacite.schema.kernel_4.ResourceType **AUDIOVISUAL**

A series of visual representations imparting an impression of motion when shown in succession. May or may not include sound. May be used for films, video, etc,

Ex: <http://data.datacite.org/10.7916/D8610XCB>

COLLECTION

public static final org.datacite.schema.kernel_4.ResourceType **COLLECTION**

An aggregation of resources of various types, or a list of resources that form part of a publication. If a collection exists of a single type, use the single type to describe it.

A collection of samples, or various files making up a report. Ex: <http://data.datacite.org/10.5284/1001038>

DATA_PAPER

public static final org.datacite.schema.kernel_4.ResourceType **DATA_PAPER**

DATASET

public static final org.datacite.schema.kernel_4.ResourceType **DATASET**

Data encoded in a defined structure.

Data file or files, Ex: <http://data.datacite.org/10.4231/D39Z90B9T>

EVENT

public static final org.datacite.schema.kernel_4.ResourceType **EVENT**

A nonâpersistent, timeâbased occurrence.

Descriptive information and/or content that is the basis for discovery of the purpose, location, duration, and responsible agents associated with an event such as a webcast or convention. Ex: <http://data.datacite.org/10.7269/P3RN35SZ>

IMAGE

public static final org.datacite.schema.kernel_4.ResourceType **IMAGE**

A visual representation other than text.

Digitised or born digital images, drawings or photographs. Ex: <http://data.datacite.org/10.6083/M4QN65C5>

INTERACTIVE_RESOURCE

```
public static final org.datacite.schema.kernel_4.ResourceType INTERACTIVE_RESOURCE
```

A resource requiring interaction from the user to be understood, executed, or experienced.

Training modules, files that require use of a viewer (e.g., Flash), or query/response portals. Ex:
<http://data.datacite.org/10.7269/P3TB14TR>

MODEL

```
public static final org.datacite.schema.kernel_4.ResourceType MODEL
```

An abstract, conceptual, graphical, mathematical or visualization model that represents empirical objects, phenomena, or physical processes.

Modelled descriptions of, for example, different aspects of languages or a molecular biology reaction chain. Ex:
<http://data.datacite.org/10.5285/4D866CD2âC907â4CE2âB070â084CA9779DC2>

PHYSICAL_OBJECT

```
public static final org.datacite.schema.kernel_4.ResourceType PHYSICAL_OBJECT
```

An inanimate, threeâdimensional object or substance.

Artifacts, specimens.Ex: <http://data.datacite.org/10.7299/X78052RB>

SERVICE

```
public static final org.datacite.schema.kernel_4.ResourceType SERVICE
```

A system that provides one or more functions of value to the endâuser.

Data management service, authentication service, or photocopying service.

SOFTWARE

```
public static final org.datacite.schema.kernel_4.ResourceType SOFTWARE
```

A computer program in source code (text) or compiled form.

Software supporting research. Ex: <http://data.datacite.org/10.7938/M1057CV9>

SOUND

```
public static final org.datacite.schema.kernel_4.ResourceType SOUND
```

A resource primarily intended to be heard.

Audio recording. Ex: <http://data.datacite.org/10.7282/T3J67F05>

TEXT

```
public static final org.datacite.schema.kernel_4.ResourceType TEXT
```

A resource consisting primarily of words for reading.

Grey literature, lab notes, accompanying materials. Ex: <http://data.datacite.org/10.5682/9786065914018>

(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	ALTERNATIVE_TITLE
public static final	OTHER
public static final	SUBTITLE
public static final	TRANSLATED_TITLE

Method Summary

static TitleType	fromValue (String v) Returns the title type
String	value () Returns the value
static TitleType	valueOf (String name)

static TitleType[]	values()
------------------------------------	--------------------------

Methods inherited from class java.lang.Enum

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

Methods inherited from class java.lang.Object

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

Methods inherited from interface java.lang.Comparable

compareTo

Fields

ALTERNATIVE_TITLE

```
public static final org.datacite.schema.kernel_4.TitleType ALTERNATIVE_TITLE
```

SUBTITLE

```
public static final org.datacite.schema.kernel_4.TitleType SUBTITLE
```

TRANSLATED_TITLE

```
public static final org.datacite.schema.kernel_4.TitleType TRANSLATED_TITLE
```

OTHER

```
public static final org.datacite.schema.kernel_4.TitleType OTHER
```

Methods

values

```
public static TitleType\[\] values()
```

valueOf

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

value

```
public String value()
```

Returns the value

Returns:

the value

fromValue

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

Returns the title type

Parameters:

v - the value

Returns:

the title type

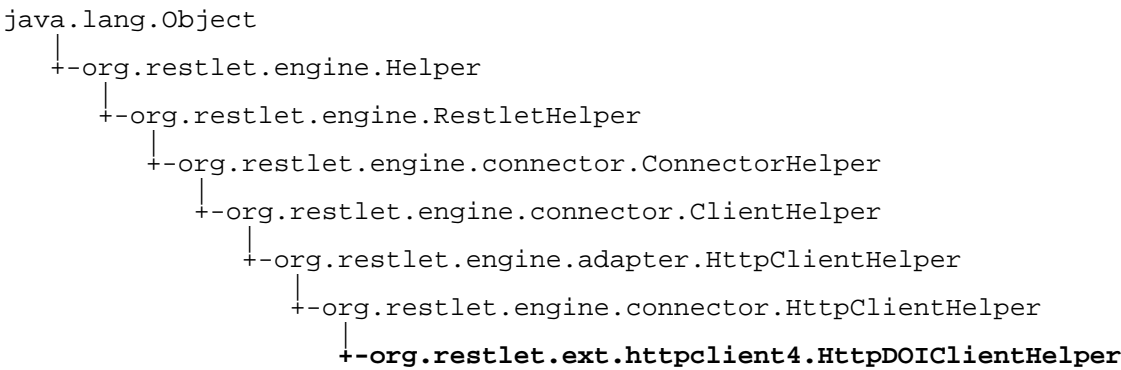
Package

org.restlet.ext.httpclient4

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

org.restlet.ext.httpclient4

Class HttpDOIClientHelper



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

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

Constructor Summary

public	HttpDOIClientHelper (org.restlet.Client client) Constructor.
--------	---

Method Summary

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

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

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	HttpMethodCall (HttpDOIClientHelper helper, String method, String requestUri, boolean hasEntity) Constructor.
--------	---

Method Summary

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

org.restlet.data.Status	sendRequest (org.restlet.Request request)
void	sendRequest (org.restlet.Request request, org.restlet.Response response, org.restlet.Uniform callback)

Methods inherited from class org.restlet.engine.adapter.ClientCall

getContentLength, getHelper, getLocalAddress, getRequestEntityChannel, getRequestEntityStream, getRequestHeadStream, getResponseEntity, getResponseEntityChannel, getResponseEntityStream, isClientKeepAlive, isServerKeepAlive, sendRequest, sendRequest, shouldRequestBeChunked

Methods inherited from class org.restlet.engine.adapter.Call

getClientAddress, getClientPort, getHostDomain, getHostPort, getLogger, getMethod, getProtocol, getReasonPhrase, getRepresentation, getRepresentation, getRequestHeaders, getRequestUri, getResponseHeaders, getServerAddress, getServerPort, getStatusCode, getUserPrincipal, getVersion, isBroken, isClientKeepAlive, isConfidential, isConnectionBroken, isKeepAlive, isRequestChunked, isResponseChunked, isServerKeepAlive, setClientAddress, setClientPort, setConfidential, setHostDomain, setHostPort, setMethod, setProtocol, setReasonPhrase, setRequestUri, setServerAddress, setServerPort, setStatusCode, setUserPrincipal, setVersion

Methods inherited from class java.lang.Object

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

Constructors

HttpMethodCall

```
public HttpMethodCall(HttpDOIClientHelper helper,
                     String method,
                     String requestUri,
                     boolean hasEntity)
```

Constructor.

Parameters:

helper - The parent HTTP client helper.
method - The method name.
requestUri - The request URI.
hasEntity - Indicates if the call will have an entity to send to the server.

Throws:

IOException - when an error happens

Methods

getHttpRequest

```
public org.apache.http.client.methods.HttpUriRequest getHttpRequest()
```

(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	WadlCnesRepresentation (ApplicationInfo application) Constructs a new Wadl representation based on a new XSLT.
--------	---

Method Summary

org.restlet.representation.Representation	getHtmlRepresentation () Returns the HTML representation of the WADL
---	---

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

getApplication, getHtmlRepresentation, setApplication, write

Methods inherited from class org.restlet.ext.xml.SaxRepresentation

getInputSource, getSaxSource, isSecureProcessing, parse, release, setSaxSource, setSecureProcessing, write, write

Methods inherited from class org.restlet.ext.xml.XmlRepresentation

getBoolean, getDocument, getDocumentBuilder, getDomSource, getEntityResolver, getErrorHandler, getInputSource, getNamespaces, getNamespaceURI, getNode, getNodes, getNumber, getPrefix, getPrefixes, getSaxSource, getSaxSource, getSchema, getStreamSource, getText, isCoalescing, isExpandingEntityRefs, isIgnoringComments, isIgnoringExtraWhitespaces, isNamespaceAware, isValidatingDtd, isXIncludeAware, release, setCoalescing, setEntityResolver, setErrorHandler, setExpandingEntityRefs, setIgnoringComments, setIgnoringExtraWhitespaces, setNamespaceAware, setNamespaces, setSchema, setSchema, setValidatingDtd, setXIncludeAware, validate, validate, validate, validate

Methods inherited from class org.restlet.representation.WriterRepresentation

getReader

Methods inherited from class org.restlet.representation.CharacterRepresentation

getChannel, getStream, write, write

Methods inherited from class org.restlet.representation.Representation

append, exhaust, getAvailableSize, getChannel, getDigest, getDisposition, getExpirationDate, getRange, getReader, getRegistration, getSize, getStream, getText, hasKnownSize, isAvailable, isEmpty, isSelectable, isTransient, release, setAvailable, setDigest, setDisposition, setExpirationDate, setListener, setRange, setSize, setTransient, write, write, write

Methods inherited from class org.restlet.representation.RepresentationInfo

getModificationDate, getTag, setModificationDate, setTag

Methods inherited from class org.restlet.representation.Variant

createClientInfo, equals, getCharacterSet, getEncodings, getLanguages, getLocationRef, getMediaType, includes, isCompatible, setCharacterSet, setEncodings, setLanguages, setLocationRef, setLocationRef, setMediaType, toString

Methods inherited from class java.lang.Object

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

Methods inherited from interface javax.xml.namespace.NamespaceContext

getNamespaceURI, getPrefix, getPrefixes

Constructors

WadlCnesRepresentation

```
public WadlCnesRepresentation(ApplicationInfo application)
```

Constructs a new Wadl representation based on a new XSLT.

Parameters:

application - application

Methods

getHtmlRepresentation

```
public org.restlet.representation.Representation getHtmlRepresentation()
```

Returns the HTML representation of the WADL

Returns:

HTML representation of the WADL

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