

**EDIT**

# **Common Data Model**

BGBM 2008

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# **Package**

# **eu.etaxonomy.cdm.model.agent**

## Package: "agent"

Provides classes for different kind of agents such as persons, teams or institutions used in nomenclatural or bibliographical references for taxa and for information associated to them.

## Related Documentation

- [TDWG Ontology](#)

## UML Diagrams

## Agent

## eu.etaxonomy.cdm.model.agent Class Address

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.agent.Address
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class Address**  
**extends VersionableEntity**

taken from TDWG & VCard <http://rs.tdwg.org/ontology/voc/ContactDetails#Address>

### Constructor Summary

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

### Method Summary

|                                    |  |
|------------------------------------|--|
| <a href="#">Contact</a>            | <a href="#">getContact()</a>                           |
| <a href="#">WaterbodyOrCountry</a> | <a href="#">getCountry()</a>                           |
| java.lang.String                   | <a href="#">getLocality()</a>                          |
| <a href="#">Point</a>              | <a href="#">getLocation()</a>                          |
| java.lang.String                   | <a href="#">getPobox()</a>                             |
| java.lang.String                   | <a href="#">getPostcode()</a>                          |
| java.lang.String                   | <a href="#">getRegion()</a>                            |
| java.lang.String                   | <a href="#">getStreet()</a>                            |
| void                               | <a href="#">setContact(Contact newContact)</a>         |
| void                               | <a href="#">setCountry(WaterbodyOrCountry country)</a> |
| void                               | <a href="#">setLocality(java.lang.String locality)</a> |
| void                               | <a href="#"> setLocation(Point location)</a>           |

|      |   |
|------|---|
| void | <a href="#">setPobox</a> (java.lang.String pobox)       |
| void | <a href="#">setPostcode</a> (java.lang.String postcode) |
| void | <a href="#">setRegion</a> (java.lang.String region)     |
| void | <a href="#">setStreet</a> (java.lang.String street)     |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### Address

```
public Address()
```

## Methods

### getContact

```
public Contact getContact()
```

### setContact

```
protected void setContact(Contact newContact)
```

### getCountry

```
public WaterbodyOrCountry getCountry()
```

## setCountry

```
public void setCountry(WaterbodyOrCountry country)
```

### Parameters:

country - country

---

## getLocation

```
public Point getLocation()
```

---

## setLocation

```
public void setLocation(Point location)
```

### Parameters:

location - location

---

## getPobox

```
public java.lang.String getPobox()
```

---

## setPobox

```
public void setPobox(java.lang.String pobox)
```

### Parameters:

pobox - pobox

---

## getStreet

```
public java.lang.String getStreet()
```

---

## setStreet

```
public void setStreet(java.lang.String street)
```

### Parameters:

street - street

---

## getPostcode

```
public java.lang.String getPostcode()
```

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**setPostcode**

```
public void setPostcode(java.lang.String postcode)
```

**Parameters:**

postcode - postcode

---

**getLocality**

```
public java.lang.String getLocality()
```

---

**setLocality**

```
public void setLocality(java.lang.String locality)
```

**Parameters:**

locality - locality

---

**getRegion**

```
public java.lang.String getRegion()
```

---

**setRegion**

```
public void setRegion(java.lang.String region)
```

**Parameters:**

region - region

# eu.etaxonomy.cdm.model.agent

## Class Agent

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.agent.Agent

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

### Direct Known Subclasses:

[Institution](#), [Person](#), [Team](#)

public abstract class **Agent**

extends [IdentifiableMediaEntity](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

#### Constructor Summary

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

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Agent

public **Agent**( )

## eu.etaxonomy.cdm.model.agent Class Contact

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.agent.Contact
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class Contact**  
extends [VersionableEntity](#)

<http://rs.tdwg.org/ontology/voc/ContactDetails#ContactDetails>

### Field Summary

|           |                           |
|-----------|---------------------------|
| protected | <a href="#">addresses</a> |
|-----------|---------------------------|

### Constructor Summary

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

### Method Summary

|                  |   |
|------------------|---|
| void             | <a href="#">addAddress(Address address)</a>           |
| java.util.Set    | <a href="#">getAddresses()</a>                        |
| java.lang.String | <a href="#">getEmail()</a>                            |
| java.lang.String | <a href="#">getFax()</a>                              |
| java.lang.String | <a href="#">getPhone()</a>                            |
| java.lang.String | <a href="#">getUrl()</a>                              |
| void             | <a href="#">removeAddress(Address address)</a>        |
| void             | <a href="#">setAddresses(java.util.Set addresses)</a> |
| void             | <a href="#">setEmail(java.lang.String email)</a>      |
| void             | <a href="#">setFax(java.lang.String fax)</a>          |

|      |  |
|------|--|
| void | <a href="#"><u>setPhone</u></a> (java.lang.String phone) |
|------|--|

|      |  |
|------|--|
| void | <a href="#"><u>setUrl</u></a> (java.lang.String url) |
|------|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

|   |   |   |                                       |                                       |
|---|---|---|---------------------------------------|---------------------------------------|
| <a href="#"><u>getNextVersion</u></a> , | <a href="#"><u>getPreviousVersion</u></a> , | <a href="#"><u>getUpdated</u></a> ,         | <a href="#"><u>getUpdatedBy</u></a> , | <a href="#"><u>getValidFrom</u></a> , |
| <a href="#"><u>getValidTo</u></a> ,     | <a href="#"><u>setNextVersion</u></a> ,     | <a href="#"><u>setPreviousVersion</u></a> , | <a href="#"><u>setUpdated</u></a> ,   | <a href="#"><u>setUpdatedBy</u></a>   |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

|   |   |   |   |
|---|---|---|---|
| <a href="#"><u>addPropertyChangeListener</u></a> ,    | <a href="#"><u>addPropertyChangeListener</u></a> ,    | <a href="#"><u>equals</u></a> ,             | <a href="#"><u>firePropertyChange</u></a> , |
| <a href="#"><u>firePropertyChange</u></a> ,           | <a href="#"><u>firePropertyChange</u></a> ,           | <a href="#"><u>firePropertyChange</u></a> , | <a href="#"><u>firePropertyChange</u></a> , |
| <a href="#"><u>firePropertyChange</u></a> ,           | <a href="#"><u>getCreated</u></a> ,                   | <a href="#"><u>getCreatedBy</u></a> ,       | <a href="#"><u>getId</u></a> ,              |
| <a href="#"><u>getUuid</u></a> ,                      | <a href="#"><u>hasListeners</u></a> ,                 |   |   |
| <a href="#"><u>removePropertyChangeListener</u></a> , | <a href="#"><u>removePropertyChangeListener</u></a> , | <a href="#"><u>setCreated</u></a> ,         | <a href="#"><u>setCreatedBy</u></a> ,       |
| <a href="#"><u>setId</u></a> ,                        | <a href="#"><u>setUuid</u></a> ,                      | <a href="#"><u>toString</u></a>             |   |

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

|                                |                                 |                                   |                                   |                                   |                                 |                                    |                                   |                               |                             |
|--------------------------------|---------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|------------------------------------|-----------------------------------|-------------------------------|-----------------------------|
| <a href="#"><u>clone</u></a> , | <a href="#"><u>equals</u></a> , | <a href="#"><u>finalize</u></a> , | <a href="#"><u>getClass</u></a> , | <a href="#"><u>hashCode</u></a> , | <a href="#"><u>notify</u></a> , | <a href="#"><u>notifyAll</u></a> , | <a href="#"><u>toString</u></a> , | <a href="#"><u>wait</u></a> , | <a href="#"><u>wait</u></a> |
|--------------------------------|---------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|------------------------------------|-----------------------------------|-------------------------------|-----------------------------|

## Fields

### addresses

```
protected java.util.Set addresses
```

## Constructors

### Contact

```
public Contact()
```

## Methods

### getAddresses

```
public java.util.Set getAddresses()
```

### setAddresses

```
protected void setAddresses(java.util.Set addresses)
```

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**addAddress**

```
public void addAddress(Address address)
```

---

**removeAddress**

```
public void removeAddress(Address address)
```

---

**getEmail**

```
public java.lang.String getEmail()
```

---

**setEmail**

```
public void setEmail(java.lang.String email)
```

**Parameters:**

email - email

---

**getUrl**

```
public java.lang.String getUrl()
```

---

**setUrl**

```
public void setUrl(java.lang.String url)
```

**Parameters:**

url - url

---

**getPhone**

```
public java.lang.String getPhone()
```

---

**setPhone**

```
public void setPhone(java.lang.String phone)
```

**Parameters:**

phone - phone

---

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## **getFax**

```
public java.lang.String getFax()
```

---

## **setFax**

```
public void setFax(java.lang.String fax)
```

### **Parameters:**

fax - fax

## eu.etaxonomy.cdm.model.agent Class Institution

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.agent.Agent
              +-eu.etaxonomy.cdm.model.agent.Institution

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

### public class Institution

extends [Agent](#)

<http://rs.tdwg.org/ontology/voc/Institution.rdf>

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                             |  |
|-----------------------------|--|
| void                        | <a href="#">addTypes(<a href="#">InstitutionType</a> t)</a>    |
| java.lang.String            | <a href="#">generateTitle()</a>                                |
| java.lang.String            | <a href="#">getCode()</a>                                      |
| <a href="#">Contact</a>     | <a href="#">getContact()</a>                                   |
| <a href="#">Institution</a> | <a href="#">getIsPartOf()</a>                                  |
| java.lang.String            | <a href="#">getName()</a>                                      |
| java.util.Set               | <a href="#">getTypes()</a>                                     |
| void                        | <a href="#">removeTypes(<a href="#">InstitutionType</a> t)</a> |

|      |   |
|------|---|
| void | <a href="#">setCode(java.lang.String code)</a>    |
| void | <a href="#">setContact(Contact contact)</a>       |
| void | <a href="#">setIsPartOf(Institution isPartOf)</a> |
| void | <a href="#">setName(java.lang.String name)</a>    |
| void | <a href="#">setTypes(java.util.Set types)</a>     |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)[addSource](#), [getSources](#), [removeSource](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)[getMedia](#)

## Constructors

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## Institution

```
public Institution()
```

## Methods

### getContact

```
public Contact getContact()
```

---

### setContact

```
public void setContact(Contact contact)
```

---

### getTypes

```
public java.util.Set getTypes()
```

---

### addTypes

```
public void addTypes(InstitutionType t)
```

---

### removeTypes

```
public void removeTypes(InstitutionType t)
```

---

### setTypes

```
protected void setTypes(java.util.Set types)
```

---

### getIsPartOf

```
public Institution getIsPartOf()
```

---

### setIsPartOf

```
public void setIsPartOf(Institution isPartOf)
```

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**getCode**

```
public java.lang.String getCode()
```

---

**setCode**

```
public void setCode(java.lang.String code)
```

---

**getName**

```
public java.lang.String getName()
```

---

**setName**

```
public void setName(java.lang.String name)
```

---

**generateTitle**

```
public java.lang.String generateTitle()
```

## eu.etaxonomy.cdm.model.agent Class InstitutionalMembership

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.agent.InstitutionalMembership
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **InstitutionalMembership**

extends [VersionableEntity](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">InstitutionalMembership(Institution institute, Person person, TimePeriod period, java.lang.String department, java.lang.String role)</a> |
|--------|--|

### Method Summary

|                             |  |
|-----------------------------|--|
| java.lang.String            | <a href="#">getDepartment()</a>  |
| <a href="#">Institution</a> | <a href="#">getInstitute()</a>   |
| <a href="#">TimePeriod</a>  | <a href="#">getPeriod()</a>  |
| <a href="#">Person</a>      | <a href="#">getPerson()</a>  |
| java.lang.String            | <a href="#">getRole()</a>  |
| void                        | <a href="#">setDepartment(java.lang.String department)</a>             |
| void                        | <a href="#">setInstitute(<a href="#">Institution</a> newInstitute)</a> |
| void                        | <a href="#">setPeriod(<a href="#">TimePeriod</a> period)</a>           |
| void                        | <a href="#">setPerson(<a href="#">Person</a> newPerson)</a>            |
| void                        | <a href="#">setRole(java.lang.String role)</a>                         |

### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

---

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

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

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

## Constructors

### InstitutionalMembership

```
public InstitutionalMembership(Institution institute,
Person person,
TimePeriod period,
java.lang.String department,
java.lang.String role)
```

## Methods

### getPerson

```
public Person getPerson()
```

### setPerson

```
public void setPerson(Person newPerson)
```

### getInstitute

```
public Institution getInstitute()
```

### setInstitute

```
public void setInstitute(Institution newInstitute)
```

### getPeriod

```
public TimePeriod getPeriod()
```

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## setPeriod

```
public void setPeriod(TimePeriod period)
```

**Parameters:**

period - period

## getDepartment

```
public java.lang.String getDepartment()
```

## setDepartment

```
public void setDepartment(java.lang.String department)
```

**Parameters:**

department - department

## getRole

```
public java.lang.String getRole()
```

## setRole

```
public void setRole(java.lang.String role)
```

**Parameters:**

role - role

## eu.etaxonomy.cdm.model.agent Class InstitutionType

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.agent.InstitutionType
```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

public class **InstitutionType**

extends [DefinedTermBase](#)

<http://rs.tdwg.org/ontology/voc/InstitutionType>

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

#### Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">InstitutionType(java.lang.String term, java.lang.String label)</a> |
|--------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IDefTerm

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Constructors

### InstitutionType

```
public InstitutionType()
```

### InstitutionType

```
public InstitutionType(java.lang.String term,  
                      java.lang.String label)
```

## eu.etaxonomy.cdm.model.agent Class Person

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.agent.Agent
              +-eu.etaxonomy.cdm.model.agent.Person

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

---

**public class Person**  
extends [Agent](#)

<http://rs.tdwg.org/ontology/voc/Person.rdf>

### Field Summary

|           |  |
|-----------|--|
| protected | <a href="#">institutionalMemberships</a> |
|-----------|--|

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

### Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">Person(java.lang.String firstname, java.lang.String lastname, java.lang.String abbreviation)</a> |
|--------|--|

### Method Summary

|      |  |
|------|--|
| void | <a href="#">addInstitutionalMembership(<a href="#">Institution</a> institution, <a href="#">TimePeriod</a> period, java.lang.String department, java.lang.String role)</a> |
|------|--|

|      |   |
|------|---|
| void | <a href="#">addKeyword(<a href="#">Keyword</a> keyword)</a> |
|------|---|

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                         |                              |
|-------------------------|------------------------------|
| <a href="#">Contact</a> | <a href="#">getContact()</a> |
|-------------------------|------------------------------|

|                  |                                |
|------------------|--------------------------------|
| java.lang.String | <a href="#">getFirstname()</a> |
|------------------|--------------------------------|

|                            |  |
|----------------------------|--|
| java.util.Set              | <a href="#">getInstitutionalMemberships()</a>  |
| java.util.Set              | <a href="#">getKeywords()</a>  |
| java.lang.String           | <a href="#">getLastname()</a>  |
| <a href="#">TimePeriod</a> | <a href="#">getLifespan()</a>  |
| java.lang.String           | <a href="#">getPrefix()</a>  |
| java.lang.String           | <a href="#">getSuffix()</a>  |
| void                       | <a href="#">removeInstitutionalMembership(<a href="#">InstitutionalMembership</a> ims)</a> |
| void                       | <a href="#">removeKeyword(<a href="#">Keyword</a> keyword)</a>                             |
| void                       | <a href="#">setContact(<a href="#">Contact</a> contact)</a>                                |
| void                       | <a href="#">setFirstname(java.lang.String firstname)</a>                                   |
| void                       | <a href="#">setInstitutionalMemberships(java.util.Set institutionalMemberships)</a>        |
| void                       | <a href="#">setKeywords(java.util.Set keywords)</a>  |
| void                       | <a href="#">setLastname(java.lang.String lastname)</a>                                     |
| void                       | <a href="#">setLifespan(<a href="#">TimePeriod</a> lifespan)</a>                           |
| void                       | <a href="#">setPrefix(java.lang.String prefix)</a>   |
| void                       | <a href="#">setSuffix(java.lang.String suffix)</a>   |

**Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)**[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)**[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)**Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)**[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)**

---

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Fields

### institutionalMemberships

protected java.util.Set **institutionalMemberships**

## Constructors

### Person

public **Person**()

### Person

public **Person**(java.lang.String firstname,  
                  java.lang.String lastname,  
                  java.lang.String abbreviation)

## Methods

### getInstitutionalMemberships

public java.util.Set **getInstitutionalMemberships**()

## setInstitutionalMemberships

```
protected void setInstitutionalMemberships(java.util.Set institutionalMemberships)
```

---

## addInstitutionalMembership

```
public void addInstitutionalMembership(Institution institution,  
          TimePeriod period,  
          java.lang.String department,  
          java.lang.String role)
```

---

## removeInstitutionalMembership

```
public void removeInstitutionalMembership(InstitutionalMembership ims)
```

---

## getKeywords

```
public java.util.Set getKeywords()
```

---

## setKeywords

```
public void setKeywords(java.util.Set keywords)
```

---

## addKeyword

```
public void addKeyword(Keyword keyword)
```

---

## removeKeyword

```
public void removeKeyword(Keyword keyword)
```

---

## getContact

```
public Contact getContact()
```

---

## setContact

```
public void setContact(Contact contact)
```

---

**getPrefix**

```
public java.lang.String getPrefix()
```

---

**setPrefix**

```
public void setPrefix(java.lang.String prefix)
```

---

**getFirstname**

```
public java.lang.String getFirstname()
```

---

**setFirstname**

```
public void setFirstname(java.lang.String firstname)
```

---

**getLastname**

```
public java.lang.String getLastname()
```

---

**setLastname**

```
public void setLastname(java.lang.String lastname)
```

---

**getSuffix**

```
public java.lang.String getSuffix()
```

---

**setSuffix**

```
public void setSuffix(java.lang.String suffix)
```

---

**getLifespan**

```
public TimePeriod getLifespan()
```

---

**setLifespan**

```
public void setLifespan(TimePeriod lifespan)
```

---

(continued from last page)

**Parameters:**

lifespan - lifespan

---

## generateTitle

```
public java.lang.String generateTitle()
```

## eu.etaxonomy.cdm.model.agent Class Team

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.agent.Agent
              +-eu.etaxonomy.cdm.model.agent.Team

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

---

**public class Team**  
extends [Agent](#)

An author team may exist for itself or may be built with the persons who belong to it. {At least one of the attributes shortName or fullName must exist.}

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

|                            |  |
|----------------------------|--|
| <b>Constructor Summary</b> |  |
|----------------------------|--|

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

|                       |  |
|-----------------------|--|
| <b>Method Summary</b> |  |
|-----------------------|--|

|      |  |
|------|--|
| void | <a href="#">addTeamMember(Person person)</a> |
|------|--|

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                |                                  |
|----------------|----------------------------------|
| java.util.List | <a href="#">getTeamMembers()</a> |
|----------------|----------------------------------|

|      |   |
|------|---|
| void | <a href="#">removeTeamMember(Person person)</a> |
|------|---|

|      |  |
|------|--|
| void | <a href="#">setTeamMembers(java.util.List teamMembers)</a> |
|------|--|

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity</a> |
|---|

|  |
|--|
| <a href="#">addMedia</a> , <a href="#">getMedia</a> , <a href="#">removeMedia</a> , <a href="#">setMedia</a> |
|--|

|  |
|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.IdentifiableEntity</a> |
|--|

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Team

public [Team\(\)](#)

## Methods

### getTeamMembers

public java.util.List [getTeamMembers\(\)](#)

(continued from last page)

## **setTeamMembers**

```
protected void setTeamMembers(java.util.List teamMembers)
```

---

## **addTeamMember**

```
public void addTeamMember(Person person)
```

---

## **removeTeamMember**

```
public void removeTeamMember(Person person)
```

---

## **generateTitle**

```
public java.lang.String generateTitle()
```

---

## **Package**

# **eu.etaxonomy.cdm.model.common**

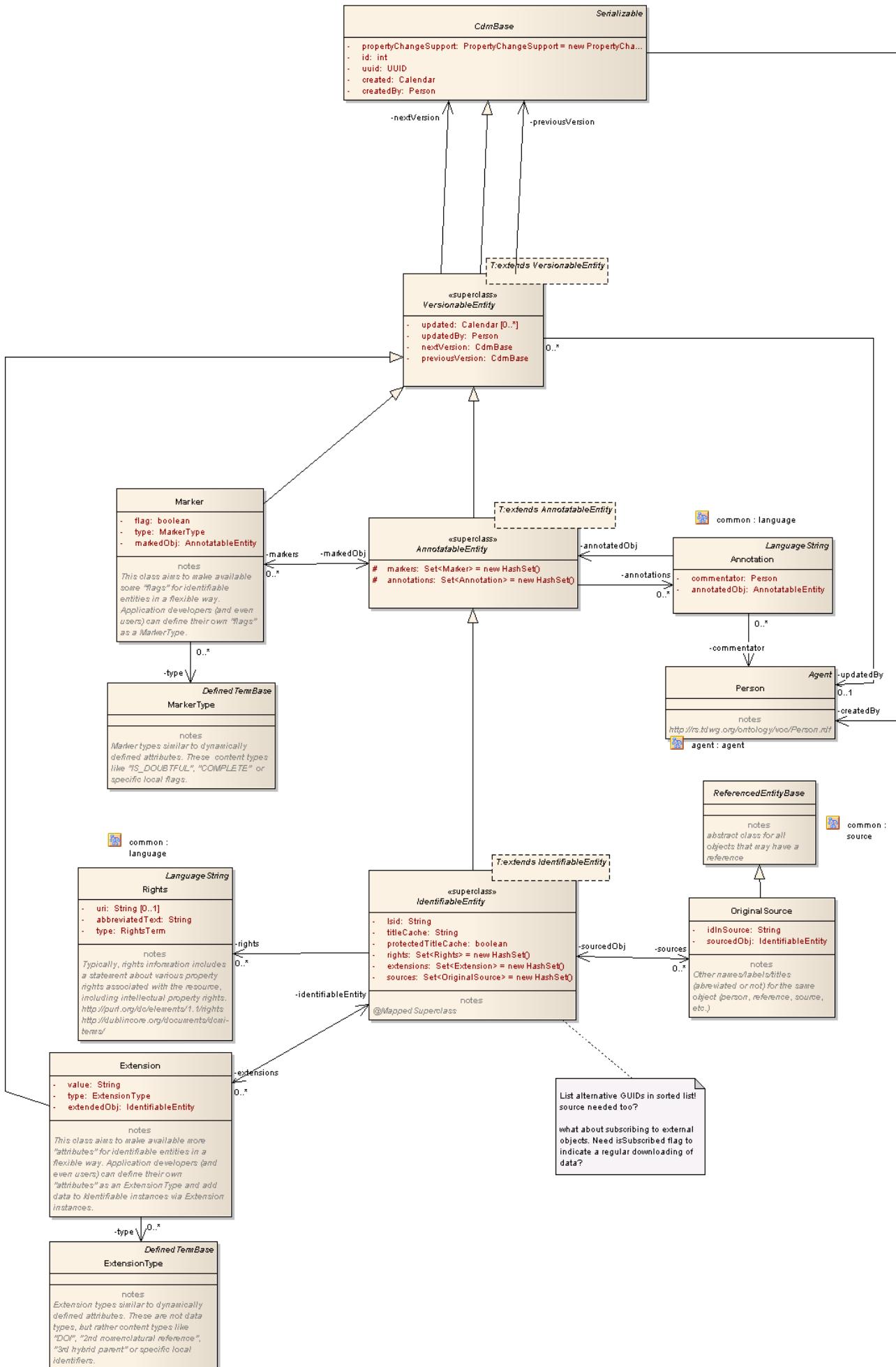
## **Package: "common"**

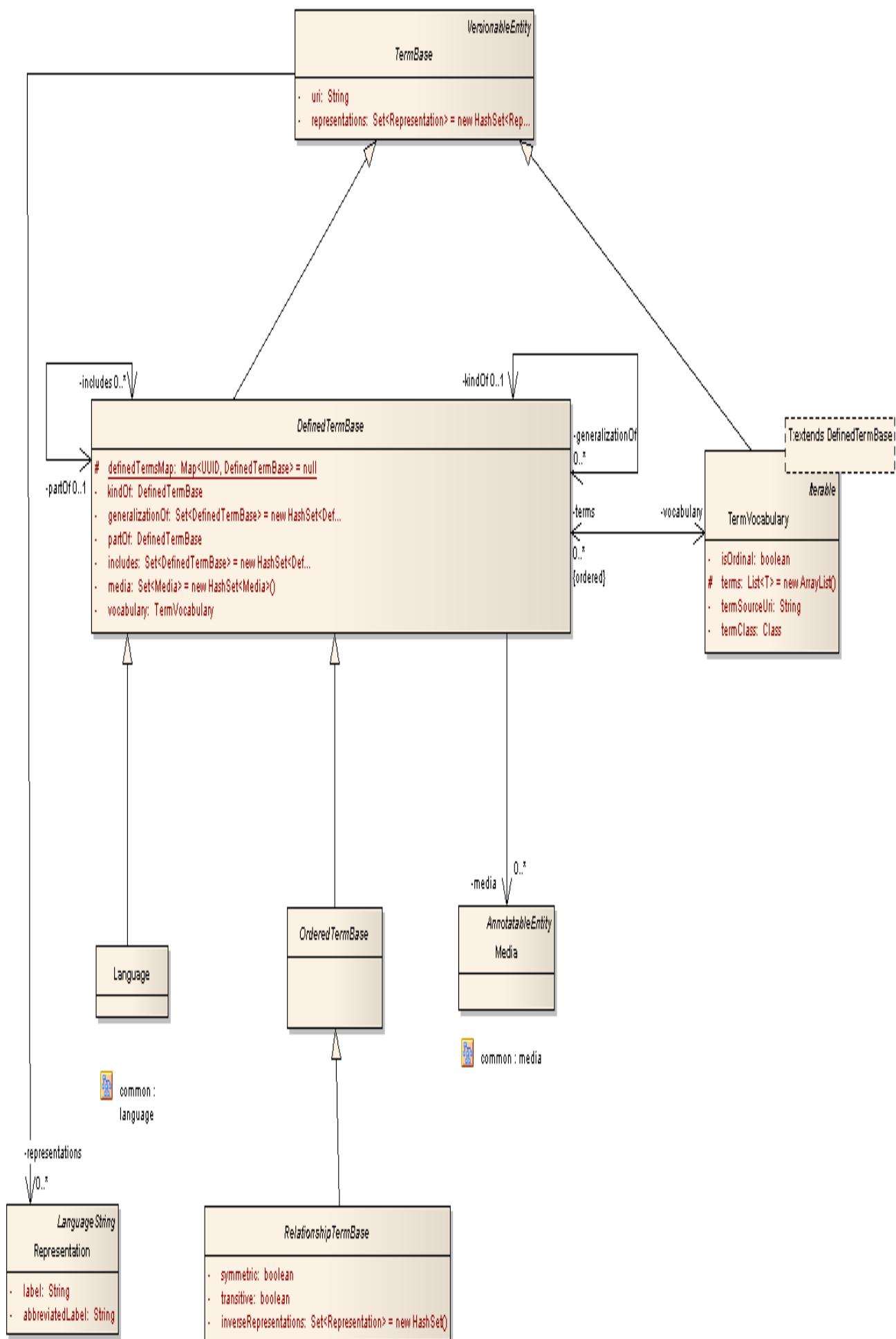
Provides general technical or common classes on the base of which are built the model classes from all others thematic packages.

## **UML Diagrams**

### **Base classes**

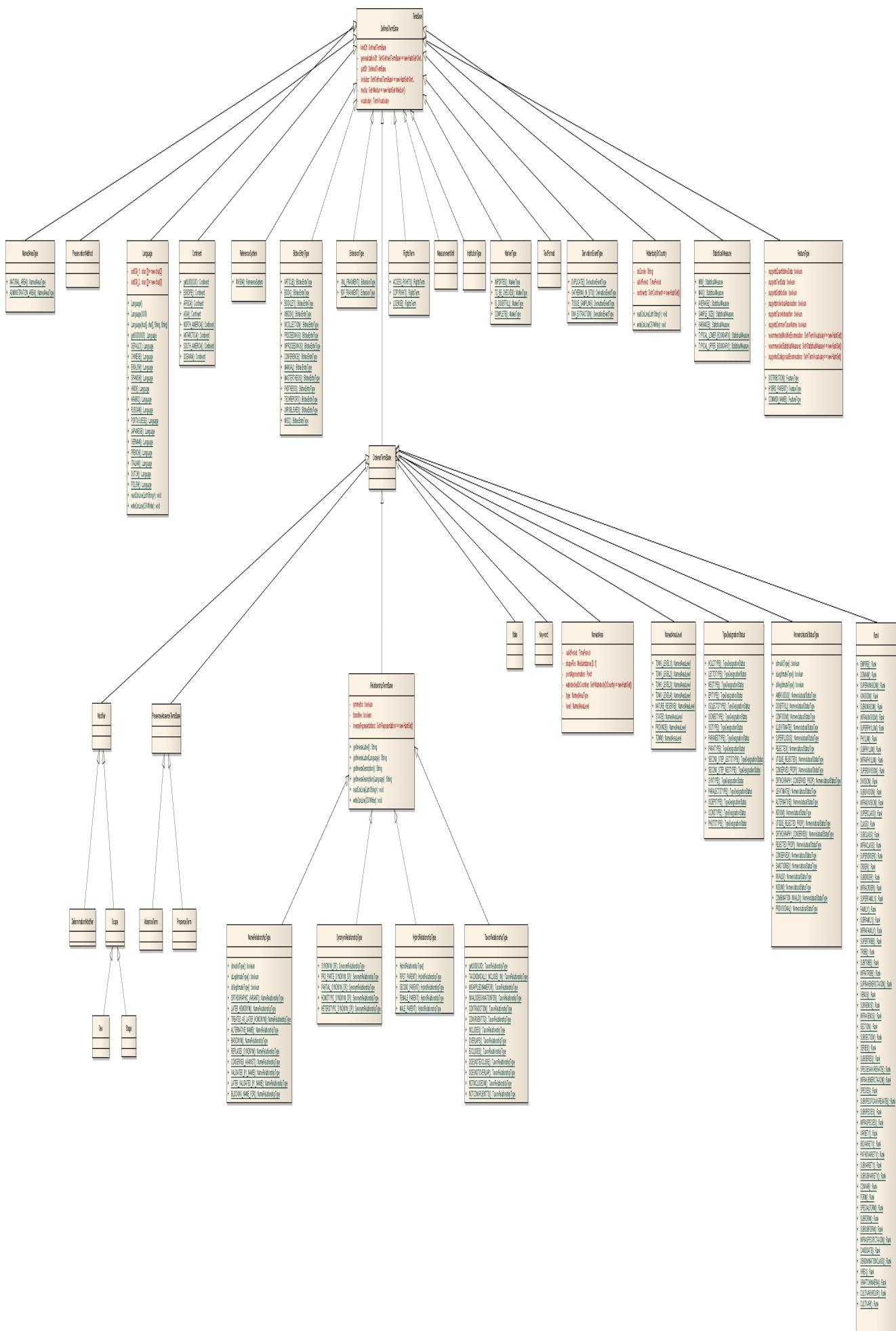
### **Term base**

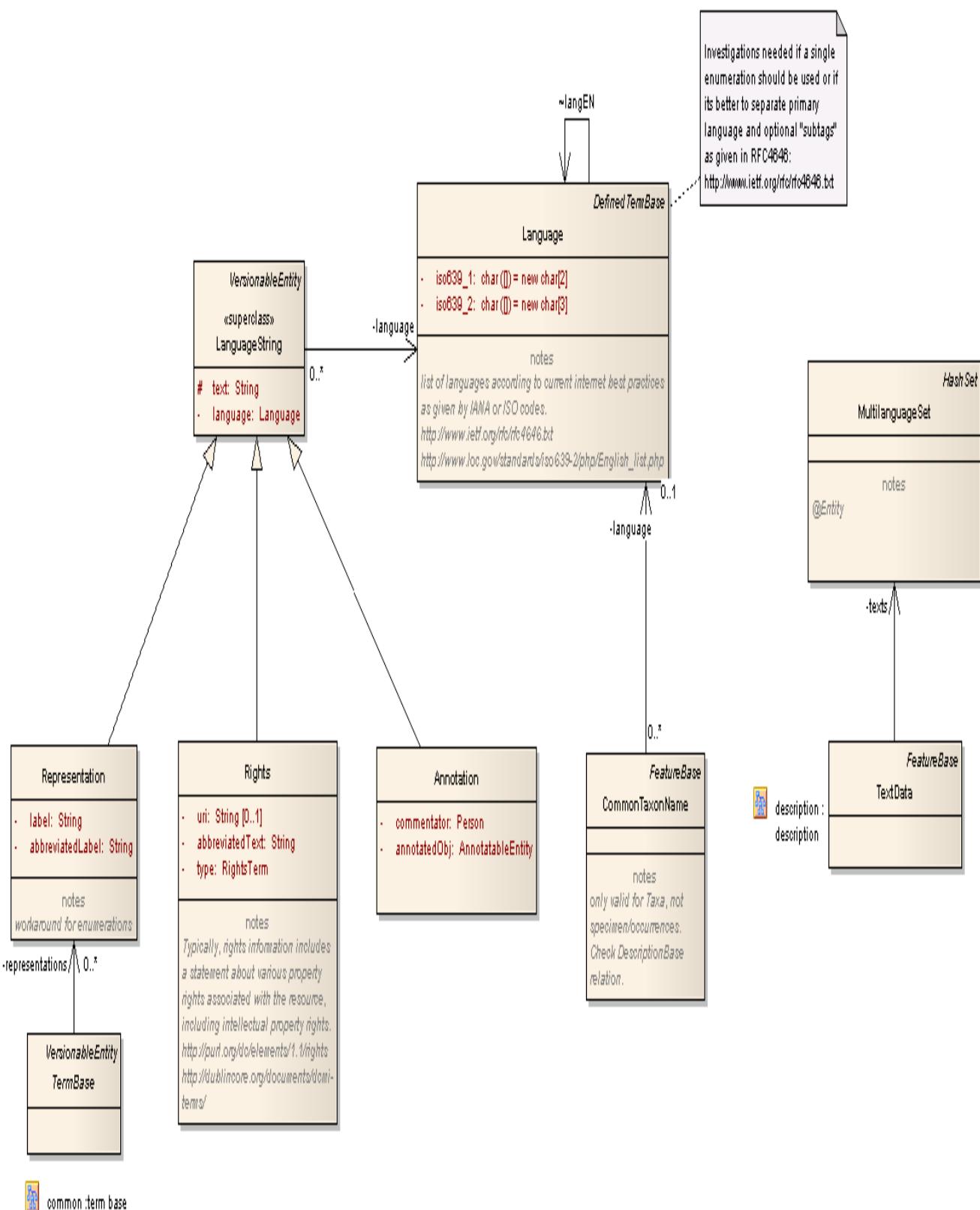




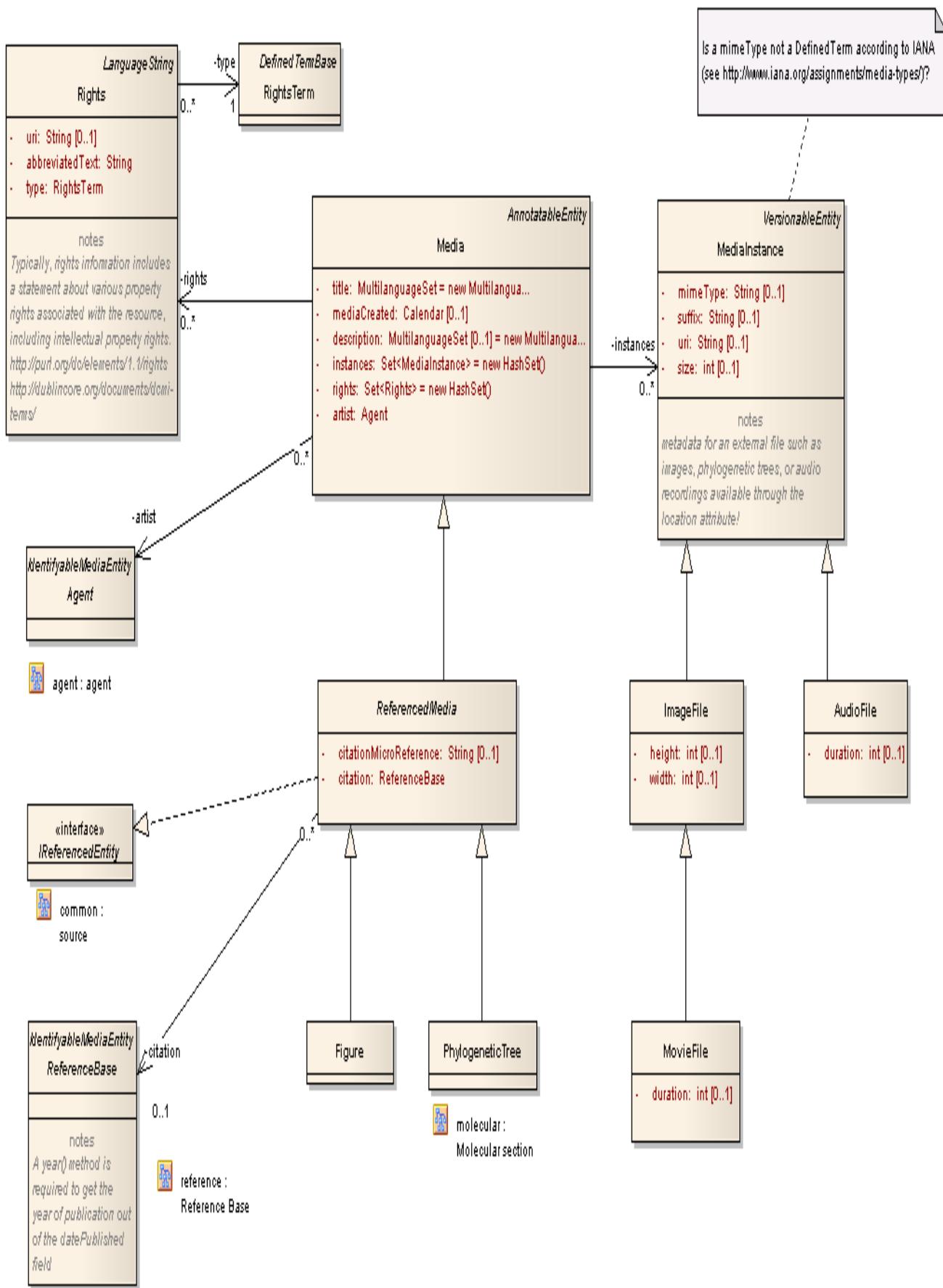
## Defined terms

### Language

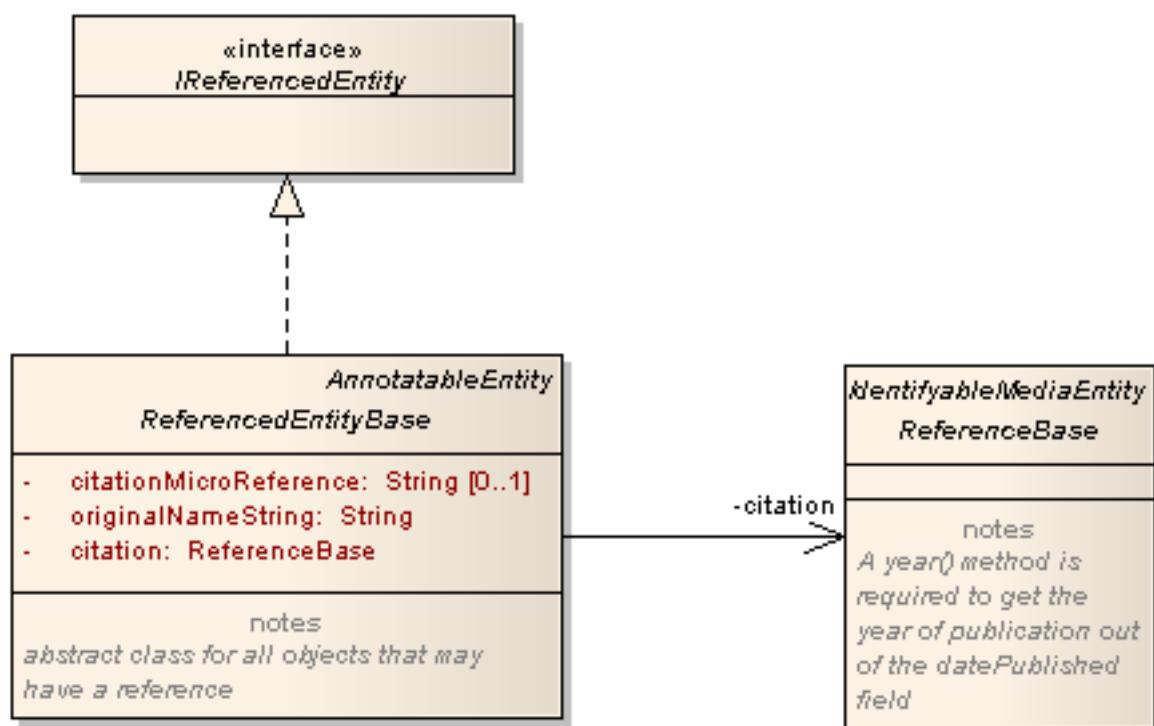




## Media



## Source



## eu.etaxonomy.cdm.model.common Class AnnotatableEntity

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
```

**All Implemented Interfaces:**  
java.io.Serializable

**Direct Known Subclasses:**  
[HomotypicalGroup](#), [EventBase](#), [IdentifiableEntity](#), [Media](#), [ReferencedEntityBase](#)

public abstract class **AnnotatableEntity**  
extends [VersionableEntity](#)

Abstract superclass implementing human annotations and machine markers to be assigned to CDM objects.

### Field Summary

|           |                             |
|-----------|-----------------------------|
| protected | <a href="#">annotations</a> |
| protected | <a href="#">markers</a>     |

### Constructor Summary

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

### Method Summary

|               |   |
|---------------|---|
| void          | <a href="#">addAnnotations(Annotation annotation)</a>     |
| void          | <a href="#">addMarker(Marker marker)</a>                  |
| java.util.Set | <a href="#">getAnnotations()</a>                          |
| java.util.Set | <a href="#">getMarkers()</a>                              |
| void          | <a href="#">removeAnnotations(Annotation annotation)</a>  |
| void          | <a href="#">removeMarker(Marker marker)</a>               |
| void          | <a href="#">setAnnotations(java.util.Set annotations)</a> |
| void          | <a href="#">setMarkers(java.util.Set markers)</a>         |

**Methods inherited from class eu.etworking.cdm.model.common.VersionableEntity**

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class eu.etworking.cdm.model.common.CdmBase**

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Fields

### markers

protected java.util.Set **markers**

### annotations

protected java.util.Set **annotations**

## Constructors

### AnnotatableEntity

public **AnnotatableEntity()**

## Methods

### getMarkers

public java.util.Set **getMarkers()**

### addMarker

public void **addMarker**([Marker](#) marker)

---

(continued from last page)

## removeMarker

```
public void removeMarker(Marker marker)
```

---

## setMarkers

```
protected void setMarkers(java.util.Set markers)
```

---

## getAnnotations

```
public java.util.Set getAnnotations()
```

---

## addAnnotations

```
public void addAnnotations(Annotation annotation)
```

---

## removeAnnotations

```
public void removeAnnotations(Annotation annotation)
```

---

## setAnnotations

```
protected void setAnnotations(java.util.Set annotations)
```

---

## eu.etaxonomy.cdm.model.common Class Annotation

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.LanguageString
        +-eu.etaxonomy.cdm.model.common.Annotation
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **Annotation**  
extends [LanguageString](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.LanguageString](#)

[text](#)

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">Annotation</a> (java.lang.String text, <a href="#">Language</a> lang) |
|--------|---|

### Method Summary

|                                   |  |
|-----------------------------------|--|
| <a href="#">AnnotatableEntity</a> | <a href="#">getAnnotatedObj()</a>  |
| <a href="#">Person</a>            | <a href="#">getCommentator()</a>   |
| java.net.URL                      | <a href="#">getLinkbackUrl()</a>   |
| void                              | <a href="#">setAnnotatedObj</a> ( <a href="#">AnnotatableEntity</a> newAnnotatedObj) |
| void                              | <a href="#">setCommentator</a> ( <a href="#">Person</a> commentator)                 |
| void                              | <a href="#">setLinkbackUrl</a> (java.net.URL linkbackUrl)                            |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.LanguageString](#)

[getLanguage](#), [getLanguageLabel](#), [getLanguageLabel](#), [getLanguageText](#), [getLanguageText](#),  
[getText](#), [setLanguage](#), [setText](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

---

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

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

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

## Constructors

### Annotation

```
public Annotation(java.lang.String text,
                  Language lang)
```

## Methods

### getAnnotatedObj

```
public AnnotatableEntity getAnnotatedObj()
```

---

### setAnnotatedObj

```
protected void setAnnotatedObj(AnnotatableEntity newAnnotatedObj)
```

---

### getCommentator

```
public Person getCommentator()
```

---

### setCommentator

```
public void setCommentator(Person commentator)
```

---

### getLinkbackUrl

```
public java.net.URL getLinkbackUrl()
```

---

### setLinkbackUrl

```
public void setLinkbackUrl(java.net.URL linkbackUrl)
```

(continued from last page)

## eu.etaxonomy.cdm.model.common Class AudioFile

```
java.lang.Object
+-eu.etaxonomy.cdm.model.common.CdmBase
  +-eu.etaxonomy.cdm.model.common.VersionableEntity
    +-eu.etaxonomy.cdm.model.common.MediaInstance
      +-eu.etaxonomy.cdm.model.common.AudioFile
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **AudioFile**  
extends [MediaInstance](#)

### Constructor Summary

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

### Method Summary

|     |                               |
|-----|-------------------------------|
| int | <a href="#">getDuration()</a> |
|-----|-------------------------------|

|      |   |
|------|---|
| void | <a href="#">setDuration(int duration)</a> |
|------|---|

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.MediaInstance](#)

[getMedia](#), [getMimeType](#), [getSize](#), [getUri](#), [setMedia](#), [setMimeType](#), [setSize](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

(continued from last page)

## Constructors

### AudioFile

```
public AudioFile()
```

## Methods

### getDuration

```
public int getDuration()
```

---

### setDuration

```
public void setDuration(int duration)
```

#### Parameters:

duration - duration

# eu.etaxonomy.cdm.model.common Class CdmBase

```
java.lang.Object
+-eu.etaxonomy.cdm.model.common.CdmBase
```

## All Implemented Interfaces:

java.io.Serializable

## Direct Known Subclasses:

[VersionableEntity](#)

public abstract class **CdmBase**

extends java.lang.Object

implements java.io.Serializable

The base class for all CDM domain classes implementing UUIDs and bean property change event firing. It provides a globally unique UUID and keeps track of creation date and person. The UUID is the same for different versions (see [VersionableEntity](#)) of a CDM object, so a locally unique id exists in addition that allows to safely access and store several objects (=version) with the same UUID. This class together with the `eu.etaxonomy.cdm.aspectj.PropertyChangeAspect` will fire bean change events to all registered listeners. Listener registration and event firing is done with the help of the `java.beans.PropertyChangeSupport` class.

## Constructor Summary

|  |                           |
|--|---------------------------|
| public   | <a href="#">CdmBase()</a> |
| Class constructor assigning a unique UUID and creation date. |                           |

## Method Summary

|         |   |
|---------|---|
| void    | <a href="#">addPropertyChangeListener</a> (java.beans.PropertyChangeListener listener)<br>see<br><code>PropertyChangeSupport.addPropertyChangeListener(java.beans.PropertyChangeListene</code>            |
| void    | <a href="#">addPropertyChangeListener</a> (java.lang.String propertyName, java.beans.PropertyChangeListene<br>see <code>PropertyChangeSupport.addPropertyChangeListener(java.lang.String, java.bea</code> |
| boolean | <a href="#">equals</a> (java.lang.Object obj)<br>Is true if UUID and created timestamp are the same for the passed Object and this one.   |
| void    | <a href="#">firePropertyChange</a> (java.beans.PropertyChangeEvent evt)   |
| void    | <a href="#">firePropertyChange</a> (java.lang.String property, boolean oldval, boolean newval)  |
| void    | <a href="#">firePropertyChange</a> (java.lang.String property, float oldval, float newval)  |
| void    | <a href="#">firePropertyChange</a> (java.lang.String property, int oldval, int newval)  |

|                               |   |
|-------------------------------|---|
| void                          | <a href="#"><u>firePropertyChange</u></a> (java.lang.String property, java.lang.Object oldval, java.lang.Object newval)   |
| void                          | <a href="#"><u>firePropertyChange</u></a> (java.lang.String property, java.lang.String oldval, java.lang.String newval)   |
| java.util.Calendar            | <a href="#"><u>getCreated</u></a> ()  |
| <a href="#"><u>Person</u></a> | <a href="#"><u>getCreatedBy</u></a> ()  |
| int                           | <a href="#"><u>getId</u></a> ()<br>Returns local unique identifier for the concrete subclass  |
| java.util.UUID                | <a href="#"><u>getUuid</u></a> ()   |
| boolean                       | <a href="#"><u>hasListeners</u></a> (java.lang.String propertyName)   |
| void                          | <a href="#"><u>removePropertyChangeListener</u></a> (java.beans.PropertyChangeListener listener)<br>see<br>PropertyChangeSupport.addPropertyChangeListener(java.beans.PropertyChangeListener) |
| void                          | <a href="#"><u>removePropertyChangeListener</u></a> (java.lang.String propertyName, java.beans.PropertyChangeListener listener)   |
| void                          | <a href="#"><u>setCreated</u></a> (java.util.Calendar created)<br>Sets the timestamp this object was created.   |
| void                          | <a href="#"><u>setCreatedBy</u></a> ( <a href="#"><u>Person</u></a> createdBy)  |
| void                          | <a href="#"><u>setId</u></a> (int id)<br>Assigns a unique local ID to this object.  |
| void                          | <a href="#"><u>setUuid</u></a> (java.util.UUID uuid)  |
| java.lang.String              | <a href="#"><u>toString</u></a> ()<br>Returns the class, id and uuid as a string for any CDM object.  |

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

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

## Constructors

### CdmBase

```
public CdmBase()
```

Class constructor assigning a unique UUID and creation date. UUID can be changed later via setUuid method.

## Methods

(continued from last page)

## **addPropertyChangeListener**

```
public void addPropertyChangeListener(java.beans.PropertyChangeListener listener)
```

see `PropertyChangeSupport.addPropertyChangeListener(java.beans.PropertyChangeListener)`

**Parameters:**

listener

## **addPropertyChangeListener**

```
public void addPropertyChangeListener(java.lang.String propertyName,  
                                 java.beans.PropertyChangeListener listener)
```

see `PropertyChangeSupport.addPropertyChangeListener(java.lang.String,  
 java.beans.PropertyChangeListener)`

## **removePropertyChangeListener**

```
public void removePropertyChangeListener(java.beans.PropertyChangeListener listener)
```

see `PropertyChangeSupport.addPropertyChangeListener(java.beans.PropertyChangeListener)`

## **removePropertyChangeListener**

```
public void removePropertyChangeListener(java.lang.String propertyName,  
                                         java.beans.PropertyChangeListener listener)
```

**See Also:**

`PropertyChangeSupport.addPropertyChangeListener(java.lang.String,  
 java.beans.PropertyChangeListener)`

## **hasListeners**

```
public boolean hasListeners(java.lang.String propertyName)
```

## **firePropertyChange**

```
public void firePropertyChange(java.lang.String property,  
                             java.lang.String oldval,  
                             java.lang.String newval)
```

## **firePropertyChange**

```
public void firePropertyChange(java.lang.String property,  
                             int oldval,  
                             int newval)
```

(continued from last page)

## firePropertyChange

```
public void firePropertyChange(java.lang.String property,
    float oldval,
    float newval)
```

---

## firePropertyChange

```
public void firePropertyChange(java.lang.String property,
    boolean oldval,
    boolean newval)
```

---

## firePropertyChange

```
public void firePropertyChange(java.lang.String property,
    java.lang.Object oldval,
    java.lang.Object newval)
```

---

## firePropertyChange

```
public void firePropertyChange(java.beans.PropertyChangeEvent evt)
```

---

## getId

```
public int getId()
```

Returns local unique identifier for the concrete subclass

**Returns:**

---

## setId

```
public void setId(int id)
```

Assigns a unique local ID to this object. Because of the EJB3 @Id and @GeneratedValue annotation this id will be set automatically by the persistence framework when object is saved.

**Parameters:**

id

---

## getUuid

```
public java.util.UUID getUuid()
```

---

## setUuid

```
public void setUuid(java.util.UUID uuid)
```

(continued from last page)

---

## getCreated

```
public java.util.Calendar getCreated()
```

---

## setCreated

```
public void setCreated(java.util.Calendar created)
```

Sets the timestamp this object was created. Most databases cannot store milliseconds, so they are removed by this method.  
Caution: We are planning to replace the Calendar class with a different datetime representation which is more suitable for hibernate see TRAC ticket

**Parameters:**

created

---

## getCreatedBy

```
public Person getCreatedBy()
```

---

## setCreatedBy

```
public void setCreatedBy(Person createdBy)
```

---

## equals

```
public boolean equals(java.lang.Object obj)
```

Is true if UUID and created timestamp are the same for the passed Object and this one.

**See Also:**

`Object.equals(java.lang.Object)`

---

## toString

```
public java.lang.String toString()
```

Returns the class, id and uuid as a string for any CDM object. For example: Taxon#13

**See Also:**

`Object.toString()`

## eu.etaxonomy.cdm.model.common Class DefinedTermBase

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
```

### All Implemented Interfaces:

[IDefTerm](#), java.io.Serializable

### Direct Known Subclasses:

[BibTexEntryType](#), [DerivationEventType](#), [PreservationMethod](#), [Continent](#), [NamedAreaType](#), [ReferenceSystem](#), [WaterbodyOrCountry](#), [FeatureType](#), [MeasurementUnit](#), [StatisticalMeasure](#), [TextFormat](#), [ExtensionType](#), [Language](#), [MarkerType](#), [OrderedTermBase](#), [RightsTerm](#), [InstitutionType](#)

---

public abstract class **DefinedTermBase**

extends [TermBase](#)

implements java.io.Serializable, [IDefTerm](#)

workaround for enumerations, base type according to TDWG. For linear ordering use partOf relation and BreadthFirst. Default iterator order should therefore be BreadthFirst (not DepthFirst)

### Field Summary

|                  |                                 |
|------------------|---------------------------------|
| protected        | <a href="#">vocabulary</a>      |
| protected static | <a href="#">vocabularyStore</a> |

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">DefinedTermBase()</a>  |
| public | <a href="#">DefinedTermBase(java.lang.String term, java.lang.String label)</a> |

### Method Summary

|   |   |
|---|---|
| void                                      | <a href="#">addIncludes(DefinedTermBase includes)</a> |
| void                                      | <a href="#">addMedia(Media media)</a>                 |
| static<br><a href="#">DefinedTermBase</a> | <a href="#">findByUuid(java.util.UUID uuid)</a>       |
| java.util.Set                             | <a href="#">getGeneralizationOf()</a>                 |
| java.util.Set                             | <a href="#">getIncludes()</a>                         |

|                                 |   |
|---------------------------------|---|
| <a href="#">DefinedTermBase</a> | <a href="#">getKindof()</a>   |
| <a href="#">java.util.Set</a>   | <a href="#">getMedia()</a>  |
| <a href="#">DefinedTermBase</a> | <a href="#">getPartof()</a>   |
| <a href="#">TermVocabulary</a>  | <a href="#">getPersistentVocabulary()</a>                             |
| <a href="#">TermVocabulary</a>  | <a href="#">getVocabulary()</a>                                       |
| void                            | <a href="#">readCsvLine(java.util.List csvLine)</a>                   |
| void                            | <a href="#">readCsvLine(java.util.List csvLine, Language lang)</a>    |
| void                            | <a href="#">removeIncludes(TermBase includes)</a>                     |
| void                            | <a href="#">removeMedia(Media media)</a>                              |
| void                            | <a href="#">setGeneralizationOf(java.util.Set generalizationOf)</a>   |
| void                            | <a href="#">setIncludes(java.util.Set includes)</a>                   |
| void                            | <a href="#">setKindof(DefinedTermBase kindof)</a>                     |
| void                            | <a href="#">setMedia(java.util.Set media)</a>                         |
| void                            | <a href="#">setPartOf(DefinedTermBase partOf)</a>                     |
| void                            | <a href="#">setPersistentVocabulary(TermVocabulary newVocabulary)</a> |
| void                            | <a href="#">setVocabulary(TermVocabulary newVocabulary)</a>           |
| static void                     | <a href="#">setVocabularyStore(IVocabularyStore vocabularyStore)</a>  |
| void                            | <a href="#">writeCsvLine(CSVWriter writer)</a>                        |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Fields

### vocabularyStore

```
protected static eu.etaxonomy.cdm.model.common.init.IVocabularyStore vocabularyStore
```

### vocabulary

```
protected eu.etaxonomy.cdm.model.common.TermVocabulary vocabulary
```

## Constructors

### DefinedTermBase

```
public DefinedTermBase()
```

### DefinedTermBase

```
public DefinedTermBase(java.lang.String term,  
                      java.lang.String label)
```

## Methods

### setVocabularyStore

```
public static void setVocabularyStore(IVocabularyStore vocabularyStore)
```

(continued from last page)

**findById**

```
public static DefinedTermBase findById(java.util.UUID uuid)
```

---

**readCsvLine**

```
public void readCsvLine(java.util.List csvLine)
```

---

**readCsvLine**

```
public void readCsvLine(java.util.List csvLine,  
    Language lang)
```

---

**writeCsvLine**

```
public void writeCsvLine(CSVWriter writer)
```

---

**getKindOf**

```
public DefinedTermBase getKindOf()
```

---

**setKindOf**

```
public void setKindOf(DefinedTermBase kindof)
```

---

**getGeneralizationOf**

```
public java.util.Set getGeneralizationOf()
```

---

**setGeneralizationOf**

```
public void setGeneralizationOf(java.util.Set generalizationOf)
```

---

**getPartOf**

```
public DefinedTermBase getPartOf()
```

---

**setPartOf**

```
public void setPartOf(DefinedTermBase partOf)
```

(continued from last page)

---

**getIncludes**

```
public java.util.Set getIncludes()
```

---

**setIncludes**

```
public void setIncludes(java.util.Set includes)
```

---

**addIncludes**

```
public void addIncludes(DefinedTermBase includes)
```

---

**removeIncludes**

```
public void removeIncludes(TermBase includes)
```

---

**getMedia**

```
public java.util.Set getMedia()
```

---

**setMedia**

```
public void setMedia(java.util.Set media)
```

---

**addMedia**

```
public void addMedia(Media media)
```

---

**removeMedia**

```
public void removeMedia(Media media)
```

---

**getVocabulary**

```
public TermVocabulary getVocabulary()
```

---

(continued from last page)

## **setVocabulary**

```
public void setVocabulary(TermVocabulary newVocabulary)
```

---

## **getPersistentVocabulary**

```
protected TermVocabulary getPersistentVocabulary()
```

---

## **setPersistentVocabulary**

```
protected void setPersistentVocabulary(TermVocabulary newVocabulary)
```

## eu.etaxonomy.cdm.model.common Class EventBase

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.EventBase
```

### All Implemented Interfaces:

[IEvent](#), [java.io.Serializable](#)

### Direct Known Subclasses:

[DerivationEvent](#), [DeterminationEvent](#), [GatheringEvent](#)

public abstract class **EventBase**  
 extends [AnnotatableEntity](#)  
 implements java.io.Serializable, [IEvent](#)

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                            |   |
|----------------------------|---|
| <a href="#">Agent</a>      | <a href="#">getActor()</a>  |
| java.lang.String           | <a href="#">getDescription()</a>                                      |
| <a href="#">TimePeriod</a> | <a href="#">getTimeperiod()</a>                                       |
| void                       | <a href="#">setActor(<a href="#">Agent</a> actor)</a>                 |
| void                       | <a href="#">setDescription(java.lang.String description)</a>          |
| void                       | <a href="#"> setTimeperiod(<a href="#">TimePeriod</a> timeperiod)</a> |

### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

---

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IEvent](#)

[getActor](#), [getTimeperiod](#), [setActor](#),  [setTimeperiod](#)

## Constructors

### EventBase

public **EventBase**( )

## Methods

### getTimeperiod

public [TimePeriod](#) **getTimeperiod**( )

---

### setTimeperiod

public void **setTimeperiod**([TimePeriod](#) timeperiod)

---

### getActor

public [Agent](#) **getActor**( )

---

### setActor

public void **setActor**([Agent](#) actor)

(continued from last page)

## **getDescription**

```
public java.lang.String getDescription()
```

---

## **setDescription**

```
public void setDescription(java.lang.String description)
```

## eu.etaxonomy.cdm.model.common Class Extension

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.Extension
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class Extension**  
extends [VersionableEntity](#)

This class aims to make available more "attributes" for identifiable entities in a flexible way. Application developers (and even users) can define their own "attributes" as an ExtensionType and add data to Identifiable instances via Extension instances.

### Constructor Summary

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

### Method Summary

|                                    |  |
|------------------------------------|--|
| <a href="#">IdentifiableEntity</a> | <a href="#">getExtendedObj()</a>   |
| <a href="#">ExtensionType</a>      | <a href="#">getType()</a>  |
| java.lang.String                   | <a href="#">getValue()</a>   |
| void                               | <a href="#">setExtendedObj(<a href="#">IdentifiableEntity</a> extendedObj)</a> |
| void                               | <a href="#">setType(<a href="#">ExtensionType</a> type)</a>                    |
| void                               | <a href="#">setValue(java.lang.String value)</a>                               |

### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### Extension

```
public Extension()
```

## Methods

### getExtendedObj

```
public IdentifiableEntity getExtendedObj()
```

### setExtendedObj

```
public void setExtendedObj(IdentifiableEntity extendedObj)
```

### getType

```
public ExtensionType getType()
```

### setType

```
public void setType(ExtensionType type)
```

#### Parameters:

type - type

### getValue

```
public java.lang.String getValue()
```

### setValue

```
public void setValue(java.lang.String value)
```

#### Parameters:

value - value

## eu.etaxonomy.cdm.model.common Class ExtensionType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.ExtensionType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class ExtensionType**  
extends [DefinedTermBase](#)

Extension types similar to dynamically defined attributes. These are not data types, but rather content types like "DOI", "2nd nomenclatural reference", "3rd hybrid parent" or specific local identifiers.

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">ExtensionType()</a>  |
| public | <a href="#">ExtensionType(java.lang.String term, java.lang.String label)</a> |

## Method Summary

|                                      |                                |
|--------------------------------------|--------------------------------|
| static <a href="#">ExtensionType</a> | <a href="#">RDF_FRAGMENT()</a> |
| static <a href="#">ExtensionType</a> | <a href="#">XML_FRAGMENT()</a> |

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

---

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### ExtensionType

public **ExtensionType**()

---

### ExtensionType

public **ExtensionType**(java.lang.String term,  
                           java.lang.String label)

## Methods

### XML\_FRAGMENT

public final static [ExtensionType](#) XML\_FRAGMENT()

---

### RDF\_FRAGMENT

public final static [ExtensionType](#) RDF\_FRAGMENT()

# eu.etaxonomy.cdm.model.common Class Figure

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.Media
          +-eu.etaxonomy.cdm.model.common.ReferencedMedia
            +-eu.etaxonomy.cdm.model.common.Figure
```

## All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **Figure**  
extends [ReferencedMedia](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

Methods inherited from class [eu.etaxonomy.cdm.model.common.ReferencedMedia](#)

[getCitation](#), [getCitationMicroReference](#), [setCitation](#), [setCitationMicroReference](#)

Methods inherited from class [eu.etaxonomy.cdm.model.common.Media](#)

[addDescription](#), [addDescription](#), [addInstance](#), [addRights](#), [getArtist](#), [getDescription](#),  
[getInstances](#), [getMediaCreated](#), [getRights](#), [getTitle](#), [removeDescription](#),  
[removeInstance](#), [removeRights](#), [setArtist](#), [setDescription](#), [setInstances](#),  
[setMediaCreated](#), [setRights](#), [setTitle](#)

Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IReferencedEntity

```
getCitation
```

## Constructors

### Figure

```
public Figure()
```

## eu.etaxonomy.cdm.model.common Interface IDefTerm

All Known Implementing Classes:

[DefinedTermBase](#)

---

public interface **IDefTerm**

extends

### Method Summary

|                                |   |
|--------------------------------|---|
| <a href="#">TermVocabulary</a> | <a href="#">getVocabulary()</a>   |
| void                           | <a href="#">readCsvLine(java.util.List csvLine)</a>                         |
| void                           | <a href="#">setVocabulary(<a href="#">TermVocabulary</a> newVocabulary)</a> |
| void                           | <a href="#">writeCsvLine(CSVWriter writer)</a>                              |

### Methods

#### **readCsvLine**

public void **readCsvLine**(java.util.List csvLine)

---

#### **writeCsvLine**

public void **writeCsvLine**(CSVWriter writer)

---

#### **getVocabulary**

public [TermVocabulary](#) **getVocabulary**()

---

#### **setVocabulary**

public void **setVocabulary**([TermVocabulary](#) newVocabulary)

## eu.etaxonomy.cdm.model.common Class IdentifiableEntity

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
```

### All Implemented Interfaces:

[IOriginalSource](#), [java.io.Serializable](#)

### Direct Known Subclasses:

[TaxonBase](#), [TaxonNameBase](#), [Sequence](#), [DescriptionBase](#), [IdentifiableMediaEntity](#)

```
public abstract class IdentifiableEntity
extends AnnotatableEntity
implements java.io.Serializable, IOriginalSource
```

Superclass for the primary CDM classes that can be referenced from outside via LSIDs and contain a simple generated title string as a label for human reading. All subclasses inherit the ability to store additional properties that are stored as [Extensions](#), basically a string value with a type term. Any number of right statements can be attached as well as multiple [OriginalSource](#) objects. Original sources carry a reference to the source, an ID within that source and the original title/label of this object as it was used in that source ([originalNameString](#)). A Taxon for example that was taken from 2 sources like FaunaEuropaea and IPNI would have two [originalSource](#) objects. The [originalSource](#) representing that taxon as it was found in IPNI would contain IPNI as the reference, the IPNI id of the taxon and the name of the taxon exactly as it was used in IPNI.

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                              |   |
|------------------------------|---|
| void                         | <a href="#">addExtension(Extension extension)</a> |
| void                         | <a href="#">addRights(Rights right)</a>           |
| void                         | <a href="#">addSource(OriginalSource source)</a>  |
| abstract<br>java.lang.String | <a href="#">generateTitle()</a>                   |
| java.util.Set                | <a href="#">getExtensions()</a>                   |
| java.lang.String             | <a href="#">getLsid()</a>                         |

|                  |  |
|------------------|--|
| java.util.Set    | <a href="#">getRights()</a>  |
| java.util.Set    | <a href="#">getSources()</a>   |
| java.lang.String | <a href="#">getTitleCache()</a>  |
| boolean          | <a href="#">isProtectedTitleCache()</a>  |
| void             | <a href="#">removeExtension(Extension extension)</a>                             |
| void             | <a href="#">removeRights(Rights right)</a>                                       |
| void             | <a href="#">removeSource(OriginalSource source)</a>                              |
| void             | <a href="#">setExtensions(java.util.Set extensions)</a>                          |
| void             | <a href="#">setLsid(java.lang.String lsid)</a>                                   |
| void             | <a href="#">setProtectedTitleCache(boolean protectedTitleCache)</a>              |
| void             | <a href="#">setRights(java.util.Set rights)</a>                                  |
| void             | <a href="#">setSources(java.util.Set sources)</a>                                |
| void             | <a href="#">setTitleCache(java.lang.String titleCache)</a>                       |
| void             | <a href="#">setTitleCache(java.lang.String titleCache, boolean protectCache)</a> |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

```
addSource, getSources, removeSource
```

## Constructors

### **IdentifiableEntity**

```
public IdentifiableEntity()
```

## Methods

### **getLsid**

```
public java.lang.String getLsid()
```

---

### **setLsid**

```
public void setLsid(java.lang.String lsid)
```

---

### **generateTitle**

```
public abstract java.lang.String generateTitle()
```

---

### **getTitleCache**

```
public java.lang.String getTitleCache()
```

---

### **setTitleCache**

```
public void setTitleCache(java.lang.String titleCache)
```

---

### **setTitleCache**

```
public void setTitleCache(java.lang.String titleCache,  
                           boolean protectCache)
```

---

### **getRights**

```
public java.util.Set getRights()
```

**setRights**

```
protected void setRights(java.util.Set rights)
```

---

**addRights**

```
public void addRights(Rights right)
```

---

**removeRights**

```
public void removeRights(Rights right)
```

---

**getExtensions**

```
public java.util.Set getExtensions()
```

---

**setExtensions**

```
protected void setExtensions(java.util.Set extensions)
```

---

**addExtension**

```
public void addExtension(Extension extension)
```

---

**removeExtension**

```
public void removeExtension(Extension extension)
```

---

**isProtectedTitleCache**

```
public boolean isProtectedTitleCache()
```

---

**setProtectedTitleCache**

```
public void setProtectedTitleCache(boolean protectedTitleCache)
```

---

**getSources**

```
public java.util.Set getSources()
```

---

(continued from last page)

---

## **setSources**

```
protected void setSources(java.util.Set sources)
```

---

## **addSource**

```
public void addsource(OriginalSource source)
```

---

## **removeSource**

```
public void removeSource(OriginalSource source)
```

## eu.etaxonomy.cdm.model.common Class IdentifiableMediaEntity

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

```

### All Implemented Interfaces:

[IMediaDocumented](#), [java.io.Serializable](#), [IOriginalSource](#)

### Direct Known Subclasses:

[ReferenceBase](#), [Collection](#), [SpecimenOrObservationBase](#), [Agent](#)

---

public abstract class **IdentifiableMediaEntity**  
 extends [IdentifiableEntity](#)  
 implements [IOriginalSource](#), [java.io.Serializable](#), [IMediaDocumented](#)

---

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

### Constructor Summary

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

### Method Summary

|               |   |
|---------------|---|
| void          | <a href="#">addMedia(Media media)</a>         |
| java.util.Set | <a href="#">getMedia()</a>                    |
| void          | <a href="#">removeMedia(Media media)</a>      |
| void          | <a href="#">setMedia(java.util.Set media)</a> |

---

|  |
|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.IdentifiableEntity</a> |
|--|

|   |
|---|
| <a href="#">addExtension</a> , <a href="#">addRights</a> , <a href="#">addSource</a> , <a href="#">generateTitle</a> , <a href="#">getExtensions</a> , <a href="#">getLsid</a> , <a href="#">getRights</a> , <a href="#">getSources</a> , <a href="#">getTitleCache</a> , <a href="#">isProtectedTitleCache</a> , <a href="#">removeExtension</a> , <a href="#">removeRights</a> , <a href="#">removeSource</a> , <a href="#">setExtensions</a> , <a href="#">setLsid</a> , <a href="#">setProtectedTitleCache</a> , <a href="#">setRights</a> , <a href="#">setSources</a> , <a href="#">setTitleCache</a> , <a href="#">setTitleCache</a> |
|---|

---

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|---|

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### IdentifiableMediaEntity

public [IdentifiableMediaEntity\(\)](#)

## Methods

### getMedia

public java.util.Set [getMedia\(\)](#)

### setMedia

protected void [setMedia](#)(java.util.Set media)

### addMedia

public void [addMedia](#)([Media](#) media)

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---

## **removeMedia**

```
public void removeMedia(Media media)
```

## eu.etaxonomy.cdm.model.common Interface IEvent

All Known Implementing Classes:

[EventBase](#)

---

public interface **IEvent**

extends

### Method Summary

|                            |   |
|----------------------------|---|
| <a href="#">Agent</a>      | <a href="#">getActor()</a>  |
| <a href="#">TimePeriod</a> | <a href="#">getTimeperiod()</a>                                       |
| void                       | <a href="#">setActor(<a href="#">Agent</a> actor)</a>                 |
| void                       | <a href="#"> setTimeperiod(<a href="#">TimePeriod</a> timeperiod)</a> |

### Methods

#### **getTimeperiod**

public [TimePeriod](#) [getTimeperiod\(\)](#)

---

#### **setTimeperiod**

public void  [setTimeperiod\(\[TimePeriod\]\(#\) timeperiod\)](#)

---

#### **getActor**

public [Agent](#) [getActor\(\)](#)

---

#### **setActor**

public void [setActor\(\[Agent\]\(#\) actor\)](#)

## eu.etaxonomy.cdm.model.common Class ImageFile

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.MediaInstance
        +-eu.etaxonomy.cdm.model.common.ImageFile
```

**All Implemented Interfaces:**  
 java.io.Serializable

**Direct Known Subclasses:**

[MovieFile](#)

public class **ImageFile**  
 extends [MediaInstance](#)

### Constructor Summary

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

### Method Summary

|      |                                       |
|------|---------------------------------------|
| int  | <a href="#">getHeight()</a>           |
| int  | <a href="#">getWidth()</a>            |
| void | <a href="#">setHeight(int height)</a> |
| void | <a href="#">setWidth(int width)</a>   |

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.MediaInstance](#)

[getMedia](#), [getMimeType](#), [getSize](#), [getUri](#), [setMedia](#), [setMimeType](#), [setSize](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### ImageFile

```
public ImageFile()
```

## Methods

### getHeight

```
public int getHeight()
```

---

### setHeight

```
public void setHeight(int height)
```

**Parameters:**

height - height

---

### getWidth

```
public int getWidth()
```

---

### setWidth

```
public void setWidth(int width)
```

**Parameters:**

width - width

## eu.etaxonomy.cdm.model.common Interface IMediaDocumented

All Known Implementing Classes:  
[Sequence](#), [IdentifiableMediaEntity](#)

---

public interface **IMediaDocumented**  
extends

### Method Summary

|               |                            |
|---------------|----------------------------|
| java.util.Set | <a href="#">getMedia()</a> |
|---------------|----------------------------|

### Methods

#### **getMedia**

public java.util.Set **getMedia()**

## eu.etaxonomy.cdm.model.common Interface IOriginalSource

All Known Implementing Classes:  
[IdentifiableEntity](#)

---

public interface **IOriginalSource**  
extends

### Method Summary

|               |   |
|---------------|---|
| void          | <a href="#">addSource(OriginalSource source)</a>    |
| java.util.Set | <a href="#">getSources()</a>                        |
| void          | <a href="#">removeSource(OriginalSource source)</a> |

### Methods

#### getSources

```
public java.util.Set getSources()
```

---

#### addSource

```
public void addSource(OriginalSource source)
```

---

#### removeSource

```
public void removeSource(OriginalSource source)
```

## eu.etaxonomy.cdm.model.common Interface IReferencedEntity

All Known Implementing Classes:

[TaxonNameBase](#), [Sequence](#), [ReferencedEntityBase](#), [ReferencedMedia](#)

---

public interface **IReferencedEntity**

extends

### Method Summary

|                               |                               |
|-------------------------------|-------------------------------|
| <a href="#">ReferenceBase</a> | <a href="#">getCitation()</a> |
|-------------------------------|-------------------------------|

### Methods

#### **getCitation**

public [ReferenceBase](#) **getCitation()**

## eu.etaxonomy.cdm.model.common Interface IRelated

---

public interface **IRelated**  
extends

PLEASE LOOK AT NameRelationship and TaxonRelationship

**Parameters:**

T

---

### Method Summary

|      |   |
|------|---|
| void | <a href="#"><u>addRelationship(RelationshipBase relation)</u></a> |
|------|---|

### Methods

#### **addRelationship**

public void [addRelationship\(RelationshipBase relation\)](#)

## eu.etaxonomy.cdm.model.common Class Keyword

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.common.Keyword

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **Keyword**  
extends [OrderedTermBase](#)

simple keywords. could be taxonomic scope, geographic scope or anything else

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[orderIndex](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">Keyword(java.lang.String term, java.lang.String label)</a> |
|--------|--|

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

|  |
|--|
| <a href="#">compareTo</a> , <a href="#">decreaseIndex</a> , <a href="#">equals</a> , <a href="#">incrementIndex</a> , <a href="#">isHigher</a> , <a href="#">isLower</a> , <a href="#">setVocabulary</a> |
|--|

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

|  |
|--|
| <a href="#">addIncludes</a> , <a href="#">addMedia</a> , <a href="#">findByUuid</a> , <a href="#">getGeneralizationOf</a> , <a href="#">getIncludes</a> , <a href="#">getKindOf</a> ,<br><a href="#">getMedia</a> , <a href="#">getPartOf</a> , <a href="#">getPersistentVocabulary</a> , <a href="#">getVocabulary</a> , <a href="#">readCsvLine</a> ,<br><a href="#">readCsvLine</a> , <a href="#">removeIncludes</a> , <a href="#">removeMedia</a> , <a href="#">setGeneralizationOf</a> , <a href="#">setIncludes</a> ,<br><a href="#">setKindOf</a> , <a href="#">setMedia</a> , <a href="#">setPartOf</a> , <a href="#">setPersistentVocabulary</a> , <a href="#">setVocabulary</a> ,<br><a href="#">setVocabularyStore</a> , <a href="#">writeCsvLine</a> |
|--|

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.TermBase](#)

|  |
|--|
| <a href="#">addRepresentation</a> , <a href="#">equals</a> , <a href="#">getDescription</a> , <a href="#">getDescription</a> , <a href="#">getLabel</a> , <a href="#">getLabel</a> ,<br><a href="#">getRepresentation</a> , <a href="#">getRepresentations</a> , <a href="#">getUri</a> , <a href="#">removeRepresentation</a> ,<br><a href="#">setRepresentations</a> , <a href="#">setUri</a> , <a href="#">toString</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

## Constructors

### Keyword

`public Keyword()`

### Keyword

`public Keyword(java.lang.String term,  
 java.lang.String label)`

## eu.etaxonomy.cdm.model.common Class Language

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.Language
```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class Language**  
extends [DefinedTermBase](#)

list of languages according to current internet best practices as given by IANA or ISO codes. <http://www.ietf.org/rfc/rfc4646.txt>  
[http://www.loc.gov/standards/iso639-2/php/English\\_list.php](http://www.loc.gov/standards/iso639-2/php/English_list.php)

### Field Summary

|                     |                             |
|---------------------|-----------------------------|
| public static final | <a href="#">uuidEnglish</a> |
|---------------------|-----------------------------|

### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

|  |
|--|
| <a href="#">vocabulary</a> , <a href="#">vocabularyStore</a> |
|--|

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">Language()</a>  |
| public | <a href="#">Language(java.util.UUID uuid)</a>   |
| public | <a href="#">Language(char[] iso639_1, char[] iso639_2, java.lang.String englishLabel, java.lang.String frenchLabel)</a> |
| public | <a href="#">Language(java.lang.String text, java.lang.String label, <a href="#">Language</a> lang)</a>                  |
| public | <a href="#">Language(java.lang.String label, java.lang.String text)</a>   |

### Method Summary

|                                 |                           |
|---------------------------------|---------------------------|
| static <a href="#">Language</a> | <a href="#">ARABIC()</a>  |
| static <a href="#">Language</a> | <a href="#">CHINESE()</a> |
| static <a href="#">Language</a> | <a href="#">DEFAULT()</a> |

|                                 |   |
|---------------------------------|---|
| static <a href="#">Language</a> | <a href="#">DUTCH()</a>                             |
| static <a href="#">Language</a> | <a href="#">ENGLISH()</a>                           |
| static <a href="#">Language</a> | <a href="#">FRENCH()</a>                            |
| static <a href="#">Language</a> | <a href="#">GERMAN()</a>                            |
| static <a href="#">Language</a> | <a href="#">getUUID(java.util.UUID uuid)</a>        |
| static <a href="#">Language</a> | <a href="#">HINDI()</a>                             |
| static <a href="#">Language</a> | <a href="#">ITALIAN()</a>                           |
| static <a href="#">Language</a> | <a href="#">JAPANESE()</a>                          |
| static <a href="#">Language</a> | <a href="#">POLISH()</a>                            |
| static <a href="#">Language</a> | <a href="#">PORTUGUESE()</a>                        |
| void                            | <a href="#">readCsvLine(java.util.List csvLine)</a> |
| static <a href="#">Language</a> | <a href="#">RUSSIAN()</a>                           |
| static <a href="#">Language</a> | <a href="#">SPANISH()</a>                           |
| void                            | <a href="#">writeCsvLine(CSVWriter writer)</a>      |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Fields

### **uuidEnglish**

```
public static final java.util.UUID uuidEnglish
```

## Constructors

### **Language**

```
public Language()
```

---

### **Language**

```
public Language(java.util.UUID uuid)
```

---

### **Language**

```
public Language(char[] iso639_1,  

                char[] iso639_2,  

                java.lang.String englishLabel,  

                java.lang.String frenchLabel)
```

---

### **Language**

```
public Language(java.lang.String text,  

                 java.lang.String label,  

Language lang)
```

(continued from last page)

## Language

```
public Language(java.lang.String label,  
               java.lang.String text)
```

## Methods

### getUUID

```
public final static Language getUUID(java.util.UUID uuid)
```

### DEFAULT

```
public final static Language DEFAULT()
```

### CHINESE

```
public final static Language CHINESE()
```

### ENGLISH

```
public final static Language ENGLISH()
```

### SPANISH

```
public final static Language SPANISH()
```

### HINDI

```
public final static Language HINDI()
```

### ARABIC

```
public final static Language ARABIC()
```

### RUSSIAN

```
public final static Language RUSSIAN()
```

(continued from last page)

## PORTUGUESE

```
public final static Language PORTUGUESE( )
```

---

## JAPANESE

```
public final static Language JAPANESE( )
```

---

## GERMAN

```
public final static Language GERMAN( )
```

---

## FRENCH

```
public final static Language FRENCH( )
```

---

## ITALIAN

```
public final static Language ITALIAN( )
```

---

## DUTCH

```
public final static Language DUTCH( )
```

---

## POLISH

```
public final static Language POLISH( )
```

---

## readCsvLine

```
public void readCsvLine(java.util.List csvLine)
```

---

## writeCsvLine

```
public void writeCsvLine(CSVWriter writer)
```

## eu.etaxonomy.cdm.model.common Class LanguageString

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.LanguageString
```

**All Implemented Interfaces:**  
java.io.Serializable

**Direct Known Subclasses:**  
[Annotation](#), [Representation](#), [Rights](#)

public class **LanguageString**  
 extends [VersionableEntity](#)

### Field Summary

|           |                      |
|-----------|----------------------|
| protected | <a href="#">text</a> |
|-----------|----------------------|

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">LanguageString()</a>                                     |
| public | <a href="#">LanguageString(java.lang.String text, Language lang)</a> |

### Method Summary

|                          |   |
|--------------------------|---|
| <a href="#">Language</a> | <a href="#">getLanguage()</a>                   |
| java.lang.String         | <a href="#">getLanguageLabel()</a>              |
| java.lang.String         | <a href="#">getLanguageLabel(Language lang)</a> |
| java.lang.String         | <a href="#">getLanguageText()</a>               |
| java.lang.String         | <a href="#">getLanguageText(Language lang)</a>  |
| java.lang.String         | <a href="#">getText()</a>                       |
| void                     | <a href="#">setLanguage(Language language)</a>  |
| void                     | <a href="#">setText(java.lang.String text)</a>  |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  
getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

## Fields

### text

```
protected java.lang.String text
```

## Constructors

### LanguageString

```
public LanguageString()
```

### LanguageString

```
public LanguageString(java.lang.String text,  
Language lang)
```

## Methods

### getLanguage

```
public Language getLanguage()
```

### setLanguage

```
public void setLanguage(Language language)
```

(continued from last page)

**getText**

```
public java.lang.String getText( )
```

---

**setText**

```
protected void setText(java.lang.String text)
```

---

**getLanguageLabel**

```
public java.lang.String getLanguageLabel( )
```

---

**getLanguageLabel**

```
public java.lang.String getLanguageLabel(Language lang)
```

---

**getLanguageText**

```
public java.lang.String getLanguageText( )
```

---

**getLanguageText**

```
public java.lang.String getLanguageText(Language lang)
```

## eu.etaxonomy.cdm.model.common Class Marker

```
java.lang.Object
+-eu.etaxonomy.cdm.model.common.CdmBase
  +-eu.etaxonomy.cdm.model.common.VersionableEntity
    +-eu.etaxonomy.cdm.model.common.Marker
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class Marker**  
extends [VersionableEntity](#)

This class aims to make available some "flags" for identifiable entities in a flexible way. Application developers (and even users) can define their own "flags" as a MarkerType.

### Constructor Summary

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

### Method Summary

|                                   |   |
|-----------------------------------|---|
| boolean                           | <a href="#">getFlag()</a>   |
| <a href="#">AnnotatableEntity</a> | <a href="#">getMarkedObj()</a>  |
| <a href="#">MarkerType</a>        | <a href="#">getType()</a>   |
| void                              | <a href="#">setFlag(boolean flag)</a>   |
| void                              | <a href="#">setMarkedObj(<a href="#">AnnotatableEntity</a> newMarkedObject)</a> |
| void                              | <a href="#">setType(<a href="#">MarkerType</a> type)</a>                        |

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### Marker

```
public Marker()
```

## Methods

### getMarkedObj

```
public AnnotatableEntity getMarkedObj()
```

### setMarkedObj

```
protected void setMarkedObj(AnnotatableEntity newMarkedObject)
```

### getType

```
public MarkerType getType()
```

### setType

```
public void setType(MarkerType type)
```

### getFlag

```
public boolean getFlag()
```

### setFlag

```
public void setFlag(boolean flag)
```

## eu.etaxonomy.cdm.model.common Class MarkerType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.MarkerType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class MarkerType**  
extends [DefinedTermBase](#)

Marker types similar to dynamically defined attributes. These content types like "IS\_DOUBTFUL", "COMPLETE" or specific local flags.

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">MarkerType</a> (java.lang.String term, java.lang.String label) |
|--------|--|

## Method Summary

|                                   |                            |
|-----------------------------------|----------------------------|
| static <a href="#">MarkerType</a> | <a href="#">COMPLETE()</a> |
|-----------------------------------|----------------------------|

|                                   |                            |
|-----------------------------------|----------------------------|
| static <a href="#">MarkerType</a> | <a href="#">IMPORTED()</a> |
|-----------------------------------|----------------------------|

|                                   |                               |
|-----------------------------------|-------------------------------|
| static <a href="#">MarkerType</a> | <a href="#">IS_DOUBTFUL()</a> |
|-----------------------------------|-------------------------------|

|                                   |                                 |
|-----------------------------------|---------------------------------|
| static <a href="#">MarkerType</a> | <a href="#">TO_BE_CHECKED()</a> |
|-----------------------------------|---------------------------------|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

|  |
|--|
| <a href="#">addIncludes</a> , <a href="#">addMedia</a> , <a href="#">findByUuid</a> , <a href="#">getGeneralizationOf</a> , <a href="#">getIncludes</a> , <a href="#">getKindOf</a> ,<br><a href="#">getMedia</a> , <a href="#">getPartOf</a> , <a href="#">getPersistentVocabulary</a> , <a href="#">getVocabulary</a> , <a href="#">readCsvLine</a> ,<br><a href="#">readCsvLine</a> , <a href="#">removeIncludes</a> , <a href="#">removeMedia</a> , <a href="#">setGeneralizationOf</a> , <a href="#">setIncludes</a> ,<br><a href="#">setKindOf</a> , <a href="#">setMedia</a> , <a href="#">setPartOf</a> , <a href="#">setPersistentVocabulary</a> , <a href="#">setVocabulary</a> ,<br><a href="#">setVocabularyStore</a> , <a href="#">writeCsvLine</a> |
|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

---

[addRepresentation](#), [equals](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### MarkerType

```
public MarkerType(java.lang.String term,  
                  java.lang.String label)
```

## Methods

### IMPORTED

```
public final static MarkerType IMPORTED()
```

### TO\_BE\_CHECKED

```
public final static MarkerType TO_BE_CHECKED()
```

### IS\_DOUBTFUL

```
public final static MarkerType IS_DOUBTFUL()
```

## COMPLETE

```
public final static MarkerType COMPLETE()
```

## eu.etaxonomy.cdm.model.common Class Media

```
java.lang.Object
+-eu.etaxonomy.cdm.model.common.CdmBase
  +-eu.etaxonomy.cdm.model.common.VersionableEntity
    +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
      +-eu.etaxonomy.cdm.model.common.Media
```

**All Implemented Interfaces:**  
java.io.Serializable

**Direct Known Subclasses:**  
[IdentificationKey](#), [ReferencedMedia](#)

public class **Media**  
extends [AnnotatableEntity](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                                    |  |
|------------------------------------|--|
| void                               | <a href="#">addDescription(LanguageString description)</a>           |
| void                               | <a href="#">addDescription(java.lang.String text, Language lang)</a> |
| void                               | <a href="#">addInstance(MediaInstance instance)</a>                  |
| void                               | <a href="#">addRights(Rights rights)</a>                             |
| <a href="#">Agent</a>              | <a href="#">getArtist()</a>  |
| <a href="#">MultilanguageSet</a>   | <a href="#">getDescription()</a>                                     |
| <a href="#">java.util.Set</a>      | <a href="#">getInstances()</a>                                       |
| <a href="#">java.util.Calendar</a> | <a href="#">getMediaCreated()</a>                                    |
| <a href="#">java.util.Set</a>      | <a href="#">getRights()</a>  |

|                                  |  |
|----------------------------------|--|
| <a href="#">MultilanguageSet</a> | <a href="#">getTitle()</a>                                       |
| void                             | <a href="#">removeDescription(Language lang)</a>                 |
| void                             | <a href="#">removeInstance(MediaInstance instance)</a>           |
| void                             | <a href="#">removeRights(Rights rights)</a>                      |
| void                             | <a href="#">setArtist(Agent artist)</a>                          |
| void                             | <a href="#">setDescription(MultilanguageSet description)</a>     |
| void                             | <a href="#">setInstances(java.util.Set instances)</a>            |
| void                             | <a href="#">setMediaCreated(java.util.Calendar mediaCreated)</a> |
| void                             | <a href="#">setRights(java.util.Set rights)</a>                  |
| void                             | <a href="#">setTitle(MultilanguageSet title)</a>                 |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### Media

```
public Media()
```

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## Methods

### getInstances

```
public java.util.Set getInstances()
```

---

### setInstances

```
protected void setInstances(java.util.Set instances)
```

---

### addInstance

```
public void addInstance(MediaInstance instance)
```

---

### removeInstance

```
public void removeInstance(MediaInstance instance)
```

---

### getArtist

```
public Agent getArtist()
```

---

### setArtist

```
public void setArtist(Agent artist)
```

---

### getRights

```
public java.util.Set getRights()
```

---

### setRights

```
protected void setRights(java.util.Set rights)
```

---

### addRights

```
public void addRights(Rights rights)
```

---

(continued from last page)

## **removeRights**

```
public void removeRights(Rights rights)
```

---

## **getTitle**

```
public MultilanguageSet getTitle()
```

---

## **setTitle**

```
public void setTitle(MultilanguageSet title)
```

---

## **getMediaCreated**

```
public java.util.Calendar getMediaCreated()
```

---

## **setMediaCreated**

```
public void setMediaCreated(java.util.Calendar mediaCreated)
```

---

## **getDescription**

```
public MultilanguageSet getDescription()
```

---

## **setDescription**

```
protected void setDescription(MultilanguageSet description)
```

---

## **addDescription**

```
public void addDescription(LanguageString description)
```

---

## **addDescription**

```
public void addDescription(java.lang.String text,  
                           Language lang)
```

---

## **removeDescription**

```
public void removeDescription(Language lang)
```

---

(continued from last page)

## eu.etaxonomy.cdm.model.common Class MediaInstance

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.MediaInstance
```

**All Implemented Interfaces:**  
java.io.Serializable

**Direct Known Subclasses:**  
[AudioFile](#), [ImageFile](#)

public class **MediaInstance**  
extends [VersionableEntity](#)

metadata for an external file such as images, phylogenetic trees, or audio recordings available through the location attribute!

### Constructor Summary

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

### Method Summary

|                       |  |
|-----------------------|--|
| <a href="#">Media</a> | <a href="#">getMedia()</a>                             |
| java.lang.String      | <a href="#">getMimeType()</a>                          |
| int                   | <a href="#">getSize()</a>                              |
| java.lang.String      | <a href="#">getUri()</a>                               |
| void                  | <a href="#">setMedia(Media media)</a>                  |
| void                  | <a href="#">setMimeType(java.lang.String mimeType)</a> |
| void                  | <a href="#">setSize(int size)</a>                      |
| void                  | <a href="#">setUri(java.lang.String uri)</a>           |

### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

---

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

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

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

## Constructors

### MediaInstance

```
public MediaInstance()
```

## Methods

### getMimeType

```
public java.lang.String getMimeType()
```

### setMimeType

```
public void setMimeType(java.lang.String mimeType)
```

**Parameters:**

mimeType - mimeType

### getUri

```
public java.lang.String getUri()
```

### setUri

```
public void setUri(java.lang.String uri)
```

**Parameters:**

uri - uri

### getSize

```
public int getSize()
```

(continued from last page)

---

## **setSize**

public void **setSize**(int size)

### **Parameters:**

size - size

---

## **getMedia**

public Media **getMedia**( )

---

## **setMedia**

public void **setMedia**(Media media)

## eu.etaxonomy.cdm.model.common Class MovieFile

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.MediaInstance
        +-eu.etaxonomy.cdm.model.common.ImageFile
          +-eu.etaxonomy.cdm.model.common.MovieFile
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **MovieFile**  
extends [ImageFile](#)

### Constructor Summary

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

### Method Summary

|     |                               |
|-----|-------------------------------|
| int | <a href="#">getDuration()</a> |
|-----|-------------------------------|

|      |   |
|------|---|
| void | <a href="#">setDuration(int duration)</a> |
|------|---|

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.ImageFile](#)

[getHeight](#), [getWidth](#), [setHeight](#), [setWidth](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.MediaInstance](#)

[getMedia](#), [getMimeType](#), [getSize](#), [getUri](#), [setMedia](#), [setMimeType](#), [setSize](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### MovieFile

```
public MovieFile()
```

## Methods

### getDuration

```
public int getDuration()
```

---

### setDuration

```
public void setDuration(int duration)
```

#### Parameters:

duration - duration

## eu.etaxonomy.cdm.model.common Class MultilanguageSet

```
java.lang.Object
  +-java.util.AbstractCollection
    +-java.util.AbstractSet
      +-java.util.HashSet
        +-eu.etaxonomy.cdm.model.common.MultilanguageSet
```

### All Implemented Interfaces:

`java.util.Collection, java.util.Set, java.io.Serializable, java.lang.Cloneable, java.util.Set`

```
public class MultilanguageSet
extends java.util.HashSet
```

## Constructor Summary

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

## Method Summary

|      |   |
|------|---|
| void | <a href="#">add(java.lang.String text, Language lang)</a> |
|------|---|

|                                |                                    |
|--------------------------------|------------------------------------|
| <a href="#">LanguageString</a> | <a href="#">get(Language lang)</a> |
|--------------------------------|------------------------------------|

|      |                                       |
|------|---------------------------------------|
| void | <a href="#">remove(Language lang)</a> |
|------|---------------------------------------|

### Methods inherited from class `java.util.HashSet`

|  |
|--|
| add, clear, clone, contains, isEmpty, iterator, remove, size |
|--|

### Methods inherited from class `java.util.AbstractSet`

|                             |
|-----------------------------|
| equals, hashCode, removeAll |
|-----------------------------|

### Methods inherited from class `java.util.AbstractCollection`

|  |
|--|
| add, addAll, clear, contains, containsAll, isEmpty, iterator, remove, removeAll, retainAll, size, toArray, toArray, toString |
|--|

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

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

### Methods inherited from interface `java.util.Collection`

|  |
|--|
| add, addAll, clear, contains, containsAll, equals, hashCode, isEmpty, iterator, remove, removeAll, retainAll, size, toArray, toArray |
|--|

**Methods inherited from interface** java.lang.Iterable`iterator`**Methods inherited from interface** java.util.Set`add, addAll, clear, contains, containsAll, equals, hashCode, isEmpty, iterator, remove, removeAll, retainAll, size, toArray, toArray`**Methods inherited from interface** java.util.Collection`add, addAll, clear, contains, containsAll, equals, hashCode, isEmpty, iterator, remove, removeAll, retainAll, size, toArray, toArray`**Methods inherited from interface** java.lang.Iterable`iterator`**Methods inherited from interface** java.util.Set`add, addAll, clear, contains, containsAll, equals, hashCode, isEmpty, iterator, remove, removeAll, retainAll, size, toArray, toArray`**Methods inherited from interface** java.util.Collection`add, addAll, clear, contains, containsAll, equals, hashCode, isEmpty, iterator, remove, removeAll, retainAll, size, toArray, toArray`**Methods inherited from interface** java.lang.Iterable`iterator`

## Constructors

### MultilanguageSet

```
public MultilanguageSet()
```

## Methods

### add

```
public void add(java.lang.String text,  
               Language lang)
```

### remove

```
public void remove(Language lang)
```

---

## get

```
public LanguageString get(Language lang)
```

## eu.etaxonomy.cdm.model.common Class NoDefinedTermClassException

```
java.lang.Object
  +-java.lang.Throwable
    +-java.lang.Exception
      +-eu.etaxonomy.cdm.model.common.NoDefinedTermClassException
```

All Implemented Interfaces:  
java.io.Serializable

```
public class NoDefinedTermClassException
extends java.lang.Exception
```

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">NoDefinedTermClassException()</a>  |
| public | <a href="#">NoDefinedTermClassException(java.lang.String arg0)</a>                           |
| public | <a href="#">NoDefinedTermClassException(java.lang.Throwable arg0)</a>                        |
| public | <a href="#">NoDefinedTermClassException(java.lang.String arg0, java.lang.Throwable arg1)</a> |

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

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

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

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

### Constructors

#### NoDefinedTermClassException

```
public NoDefinedTermClassException()
```

#### NoDefinedTermClassException

```
public NoDefinedTermClassException(java.lang.String arg0)
```

## NoDefinedTermClassException

```
public NoDefinedTermClassException(java.lang.Throwable arg0)
```

---

## NoDefinedTermClassException

```
public NoDefinedTermClassException(java.lang.String arg0,  
                                  java.lang.Throwable arg1)
```

## eu.etaxonomy.cdm.model.common Class OrderedTermBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase

```

### All Implemented Interfaces:

java.lang.Comparable, java.io.Serializable, [IDefTerm](#)

### Direct Known Subclasses:

[NomenclaturalStatusType](#), [Rank](#), [TypeDesignationStatus](#), [NamedArea](#), [NamedAreaLevel](#), [Modifier](#),  
[PresenceAbsenceTermBase](#), [State](#), [Keyword](#), [RelationshipTermBase](#)

public abstract class **OrderedTermBase**  
 extends [DefinedTermBase](#)  
 implements [IDefTerm](#), java.io.Serializable, java.lang.Comparable

### Field Summary

|           |                            |
|-----------|----------------------------|
| protected | <a href="#">orderIndex</a> |
|-----------|----------------------------|

### Fields inherited from class [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

|  |
|--|
| <a href="#">vocabulary</a> , <a href="#">vocabularyStore</a> |
|--|

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">OrderedTermBase()</a>  |
| public | <a href="#">OrderedTermBase(java.lang.String term, java.lang.String label)</a> |

### Method Summary

|         |  |
|---------|--|
| int     | <a href="#">compareTo(OrderedTermBase orderedTerm)</a>   |
| boolean | <a href="#">decreaseIndex(OrderedTermVocabulary vocabulary)</a><br>To be used only by OrderedTermVocabulary  |
| boolean | <a href="#">equals(java.lang.Object o)</a>   |
| boolean | <a href="#">incrementIndex(OrderedTermVocabulary vocabulary)</a><br>To be used only by OrderedTermVocabulary |

|         |  |
|---------|--|
| boolean | <a href="#">isHigher(OrderedTermBase orderedTerm)</a><br>If this term is higher than the parameter term, true is returned, else false. |
| boolean | <a href="#">isLower(OrderedTermBase orderedTerm)</a><br>If this term is lower than the parameter term, true is returned, else false.   |
| void    | <a href="#">setVocabulary(TermVocabulary newVocabulary)</a>  |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

## Fields

### orderIndex

protected int **orderIndex**

## Constructors

### OrderedTermBase

```
public OrderedTermBase()
```

---

### OrderedTermBase

```
public OrderedTermBase(java.lang.String term,  
                      java.lang.String label)
```

## Methods

### compareTo

```
public int compareTo(OrderedTermBase orderedTerm)
```

---

### isLower

```
public boolean isLower(OrderedTermBase orderedTerm)
```

If this term is lower than the parameter term, true is returned, else false. If the parameter term is null, an Exception is thrown.

**Parameters:**

orderedTerm

**Returns:**

boolean result of the comparison

---

### isHigher

```
public boolean isHigher(OrderedTermBase orderedTerm)
```

If this term is higher than the parameter term, true is returned, else false. If the parameter term is null, an Exception is thrown.

**Parameters:**

orderedTerm

**Returns:**

boolean result of the comparison

---

### setVocabulary

```
public void setVocabulary(TermVocabulary newVocabulary)
```

(continued from last page)

## decreaseIndex

```
public boolean decreaseIndex(OrderedTermVocabulary vocabulary)
```

To be used only by OrderedTermVocabulary

---

## incrementIndex

```
public boolean incrementIndex(OrderedTermVocabulary vocabulary)
```

To be used only by OrderedTermVocabulary

---

## equals

```
public boolean equals(java.lang.Object o)
```

Is true if UUID and created timestamp are the same for the passed Object and this one.

## eu.etaxonomy.cdm.model.common Class OrderedTermVocabulary

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.TermVocabulary
          +-eu.etaxonomy.cdm.model.common.OrderedTermVocabulary

```

### All Implemented Interfaces:

java.io.Serializable, java.lang.Iterable

**public class OrderedTermVocabulary**  
extends [TermVocabulary](#)

**Fields inherited from class eu.etaxonomy.cdm.model.common.TermVocabulary**

[termClass](#), [terms](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">OrderedTermVocabulary()</a>  |
| public | <a href="#">OrderedTermVocabulary(java.lang.String term, java.lang.String label, java.lang.String termSourceUri)</a> |

### Method Summary

|                                 |   |
|---------------------------------|---|
| void                            | <a href="#">addTerm(OrderedTermBase term)</a>   |
| void                            | <a href="#">addTermAbove(OrderedTermBase termToBeAdded, OrderedTermBase lowerTerm)</a>  |
| void                            | <a href="#">addTermBelow(OrderedTermBase termToBeAdded, OrderedTermBase higherTerm)</a> |
| java.util.SortedSet             | <a href="#">getEqualTerms(OrderedTermBase otb)</a>                                      |
| java.util.SortedSet             | <a href="#">getHigherAndEqualTerms(OrderedTermBase otb)</a>                             |
| java.util.SortedSet             | <a href="#">getHigherTerms(OrderedTermBase otb)</a>                                     |
| <a href="#">OrderedTermBase</a> | <a href="#">getHighestTerm()</a>  |
| java.util.SortedSet             | <a href="#">getLowerAndEqualTerms(OrderedTermBase otb)</a>                              |
| java.util.SortedSet             | <a href="#">getLowerTerms(OrderedTermBase otb)</a>                                      |

|                                 |   |
|---------------------------------|---|
| <a href="#">OrderedTermBase</a> | <a href="#">getLowestTerm()</a>   |
| <a href="#">java.util.Set</a>   | <a href="#">getNewTermSet()</a>   |
| <a href="#">OrderedTermBase</a> | <a href="#">getNextHigherTerm(<a href="#">OrderedTermBase</a> otb)</a>  |
| <a href="#">OrderedTermBase</a> | <a href="#">getNextLowerTerm(<a href="#">OrderedTermBase</a> otb)</a>   |
| boolean                         | <a href="#">indexChangeAllowed(<a href="#">OrderedTermBase</a> otb)</a> |
| void                            | <a href="#">removeTerm(<a href="#">OrderedTermBase</a> term)</a>        |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermVocabulary](#)

[addTerm](#), [findByUuid](#), [getNewTermSet](#), [getPersistentTerms](#), [getTermClass](#), [getTerms](#), [getTermSourceUri](#), [getUUID](#), [iterator](#), [LANGUAGE](#), [removeTerm](#), [setPersistentTerms](#), [setTerms](#), [setTermSourceUri](#), [size](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [java.lang.Iterable](#)

[iterator](#)

## Constructors

### OrderedTermVocabulary

```
public OrderedTermVocabulary()
```

## OrderedTermVocabulary

```
public OrderedTermVocabulary(java.lang.String term,  
                             java.lang.String label,  
                             java.lang.String termSourceUri)
```

### Parameters:

term  
label  
termSourceUri

## Methods

### getNewTermSet

```
protected java.util.Set getNewTermSet()
```

---

### getHigherAndEqualTerms

```
public java.util.SortedSet getHigherAndEqualTerms(OrderedTermBase otb)
```

---

### getHigherTerms

```
public java.util.SortedSet getHigherTerms(OrderedTermBase otb)
```

---

### getLowerAndEqualTerms

```
public java.util.SortedSet getLowerAndEqualTerms(OrderedTermBase otb)
```

---

### getLowerTerms

```
public java.util.SortedSet getLowerTerms(OrderedTermBase otb)
```

---

### getEqualTerms

```
public java.util.SortedSet getEqualTerms(OrderedTermBase otb)
```

---

### getNextHigherTerm

```
public OrderedTermBase getNextHigherTerm(OrderedTermBase otb)
```

## getNextLowerTerm

```
public OrderedTermBase getNextLowerTerm(OrderedTermBase otb)
```

---

## getLowestTerm

```
public OrderedTermBase getLowestTerm()
```

---

## getHighestTerm

```
public OrderedTermBase getHighestTerm()
```

---

## addTerm

```
public void addTerm(OrderedTermBase term)
    throws WrongTermTypeException
```

---

## addTermAbove

```
public void addTermAbove(OrderedTermBase termToBeAdded,
    OrderedTermBase lowerTerm)
    throws WrongTermTypeException
```

---

## addTermBelow

```
public void addTermBelow(OrderedTermBase termToBeAdded,
    OrderedTermBase higherTerm)
    throws WrongTermTypeException
```

---

## removeTerm

```
public void removeTerm(OrderedTermBase term)
```

---

## indexChangeAllowed

```
public boolean indexChangeAllowed(OrderedTermBase otb)
```

## eu.etaxonomy.cdm.model.common Class OriginalSource

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.common.OriginalSource
```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

**public class OriginalSource**  
extends [ReferencedEntityBase](#)

Other names/labels/titles (abbreviated or not) for the same object (person, reference, source, etc.)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                                    |  |
|------------------------------------|--|
| java.lang.String                   | <a href="#">getIdInSource()</a>  |
| <a href="#">IdentifiableEntity</a> | <a href="#">getSourcedObj()</a>  |
| void                               | <a href="#">setIdInSource(java.lang.String idInSource)</a>                   |
| void                               | <a href="#">setSourcedObj(<a href="#">IdentifiableEntity</a> sourcedObj)</a> |

### Methods inherited from class eu.etaxonomy.cdm.model.common.ReferencedEntityBase

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

---

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### OriginalSource

public [OriginalSource\(\)](#)

## Methods

### getIdInSource

public java.lang.String [getIdInSource\(\)](#)

---

### setIdInSource

public void [setIdInSource](#)(java.lang.String idInSource)

---

### getSourcedObj

public [IdentifiableEntity](#) [getSourcedObj\(\)](#)

---

### setSourcedObj

public void [setSourcedObj](#)([IdentifiableEntity](#) sourcedObj)

## eu.etaxonomy.cdm.model.common Class ReferencedEntityBase

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
```

### All Implemented Interfaces:

[IRelatedEntity](#), [java.io.Serializable](#)

### Direct Known Subclasses:

[SynonymRelationship](#), [TaxonRelationship](#), [HybridRelationship](#), [NameRelationship](#), [NameTypeDesignation](#),  
[NomenclaturalStatus](#), [SpecimenTypeDesignation](#), [FeatureBase](#), [OriginalSource](#), [RelationshipBase](#)

---

public abstract class **ReferencedEntityBase**  
 extends [AnnotatableEntity](#)  
 implements [java.io.Serializable](#), [IRelatedEntity](#)

abstract class for all objects that may have a reference

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">ReferencedEntityBase()</a>   |
| public | <a href="#">ReferencedEntityBase(<a href="#">ReferenceBase</a> citation, java.lang.String citationMicroReference, java.lang.String originalNameString)</a> |

### Method Summary

|                               |  |
|-------------------------------|--|
| <a href="#">ReferenceBase</a> | <a href="#">getCitation()</a>  |
| java.lang.String              | <a href="#">getCitationMicroReference()</a>  |
| java.lang.String              | <a href="#">getOriginalNameString()</a>  |
| void                          | <a href="#">setCitation(<a href="#">ReferenceBase</a> citation)</a>                |
| void                          | <a href="#">setCitationMicroReference(java.lang.String citationMicroReference)</a> |
| void                          | <a href="#">setOriginalNameString(java.lang.String originalNameString)</a>         |

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|---|

---

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

---

## Constructors

### ReferencedEntityBase

public **ReferencedEntityBase**( )

---

### ReferencedEntityBase

public **ReferencedEntityBase**([ReferenceBase](#) citation,  
[java.lang.String](#) citationMicroReference,  
[java.lang.String](#) originalNameString)

## Methods

### getCitationMicroReference

public [java.lang.String](#) **getCitationMicroReference**( )

---

### setCitationMicroReference

public void **setCitationMicroReference**([java.lang.String](#) citationMicroReference)

---

## getOriginalNameString

```
public java.lang.String getOriginalNameString()
```

---

## setOriginalNameString

```
public void setOriginalNameString(java.lang.String originalNameString)
```

---

## getCitation

```
public ReferenceBase getCitation()
```

---

## setCitation

```
public void setCitation(ReferenceBase citation)
```

## eu.etaxonomy.cdm.model.common Class ReferencedMedia

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.Media
          +-eu.etaxonomy.cdm.model.common.ReferencedMedia

```

### All Implemented Interfaces:

[IReferencedEntity](#), java.io.Serializable

### Direct Known Subclasses:

[PhylogeneticTree](#), [Figure](#)

public abstract class **ReferencedMedia**

extends [Media](#)

implements java.io.Serializable, [IReferencedEntity](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                               |  |
|-------------------------------|--|
| <a href="#">ReferenceBase</a> | <a href="#">getCitation()</a>  |
| java.lang.String              | <a href="#">getCitationMicroReference()</a>  |
| void                          | <a href="#">setCitation(<a href="#">ReferenceBase</a> citation)</a>                |
| void                          | <a href="#">setCitationMicroReference(java.lang.String citationMicroReference)</a> |

### Methods inherited from class eu.etaxonomy.cdm.model.common.Media

[addDescription](#), [addDescription](#), [addInstance](#), [addRights](#), [getArtist](#), [getDescription](#), [getInstances](#), [getMediaCreated](#), [getRights](#), [getTitle](#), [removeDescription](#), [removeInstance](#), [removeRights](#), [setArtist](#), [setDescription](#), [setInstances](#), [setMediaCreated](#), [setRights](#), [setTitle](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

---

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etalogy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etalogy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etalogy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### ReferencedMedia

public **ReferencedMedia()**

## Methods

### getCitation

public [ReferenceBase](#) **getCitation()**

---

### setCitation

public void **setCitation**([ReferenceBase](#) citation)

---

### getCitationMicroReference

public java.lang.String **getCitationMicroReference()**

(continued from last page)

## **setCitationMicroReference**

```
public void setCitationMicroReference(java.lang.String citationMicroReference)
```

## eu.etaxonomy.cdm.model.common Class RelationshipBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.common.RelationshipBase

```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

public abstract class **RelationshipBase**

extends [ReferencedEntityBase](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

|   |  |
|---|--|
| protected   | <a href="#">RelationshipBase</a> ( <a href="#">IRelated</a> from, <a href="#">IRelated</a> to, <a href="#">RelationshipTermBase</a> type, <a href="#">ReferenceBase</a> citation, java.lang.String citationMicroReference) |
| creates a relationship between 2 names and adds this relationship object to the respective name relation sets |  |

### Method Summary

|                          |                                   |
|--------------------------|-----------------------------------|
| <a href="#">IRelated</a> | <a href="#">getRelationFrom()</a> |
|--------------------------|-----------------------------------|

|                          |                                 |
|--------------------------|---------------------------------|
| <a href="#">IRelated</a> | <a href="#">getRelationTo()</a> |
|--------------------------|---------------------------------|

|                                      |                           |
|--------------------------------------|---------------------------|
| <a href="#">RelationshipTermBase</a> | <a href="#">getType()</a> |
|--------------------------------------|---------------------------|

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#), [setCitationMicroReference](#), [setOriginalNameString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

```
getCitation
```

## Constructors

### RelationshipBase

```
protected RelationshipBase(IRelated from,
IRelated to,
RelationshipTermBase type,
ReferenceBase citation,
java.lang.String citationMicroReference)
```

creates a relationship between 2 names and adds this relationship object to the respective name relation sets

**Parameters:**

- `toName`
- `fromName`
- `type`
- `ruleConsidered`

## Methods

### getType

```
public RelationshipTermBase getType\(\)
```

### getRelationFrom

```
public IRelated getRelationFrom\(\)
```

### getRelationTo

```
public IRelated getRelationTo\(\)
```

## eu.etaxonomy.cdm.model.common Class RelationshipTermBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.common.RelationshipTermBase

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

### Direct Known Subclasses:

[SynonymRelationshipType](#), [TaxonRelationshipType](#), [HybridRelationshipType](#), [NameRelationshipType](#)

public abstract class **RelationshipTermBase**

extends [OrderedTermBase](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">RelationshipTermBase()</a>   |
| public | <a href="#">RelationshipTermBase(java.lang.String term, java.lang.String label, boolean symmetric, boolean transitive)</a> |

## Method Summary

|                  |  |
|------------------|--|
| void             | <a href="#">addInverseRepresentation(Representation inverseRepresentation)</a>                         |
| void             | <a href="#">addRepresentation(Representation representation, Representation inverseRepresentation)</a> |
| java.lang.String | <a href="#">getInverseDescription()</a>  |
| java.lang.String | <a href="#">getInverseDescription(Language lang)</a>   |
| java.lang.String | <a href="#">getInverseLabel()</a>  |

|                                |   |
|--------------------------------|---|
| java.lang.String               | <a href="#">getInverseLabel(Language lang)</a>                                    |
| <a href="#">Representation</a> | <a href="#">getInverseRepresentation(Language lang)</a>                           |
| java.util.Set                  | <a href="#">getInverseRepresentations()</a>                                       |
| boolean                        | <a href="#">isSymmetric()</a>   |
| boolean                        | <a href="#">isTransitive()</a>  |
| void                           | <a href="#">readCsvLine(java.util.List csvLine)</a>                               |
| void                           | <a href="#">removeInverseRepresentation(Representation inverseRepresentation)</a> |
| void                           | <a href="#">setInverseRepresentations(java.util.Set inverseRepresentations)</a>   |
| void                           | <a href="#">setSymmetric(boolean symmetric)</a>                                   |
| void                           | <a href="#">setTransitive(boolean transitive)</a>                                 |
| void                           | <a href="#">writeCsvLine(CSVWriter writer)</a>                                    |

**Methods inherited from class eu.etworking.cdm.model.common.OrderedTermBase**

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

**Methods inherited from class eu.etworking.cdm.model.common.DefinedTermBase**

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class eu.etworking.cdm.model.common.TermBase**

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class eu.etworking.cdm.model.common.VersionableEntity**

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class eu.etworking.cdm.model.common.CdmBase**

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** java.lang.Comparable

compareTo

## Constructors

### RelationshipTermBase

```
public RelationshipTermBase()
```

### RelationshipTermBase

```
public RelationshipTermBase(java.lang.String term,  
                           java.lang.String label,  
                           boolean symmetric,  
                           boolean transitive)
```

## Methods

### isSymmetric

```
public boolean isSymmetric()
```

### setSymmetric

```
public void setSymmetric(boolean symmetric)
```

### isTransitive

```
public boolean isTransitive()
```

### setTransitive

```
public void setTransitive(boolean transitive)
```

**getInverseRepresentations**

```
public java.util.Set getInverseRepresentations()
```

---

**setInverseRepresentations**

```
protected void setInverseRepresentations(java.util.Set inverseRepresentations)
```

---

**addInverseRepresentation**

```
public void addInverseRepresentation(Representation inverseRepresentation)
```

---

**removeInverseRepresentation**

```
public void removeInverseRepresentation(Representation inverseRepresentation)
```

---

**addRepresentation**

```
public void addRepresentation(Representation representation,  
                             Representation inverseRepresentation)
```

---

**getInverseRepresentation**

```
public Representation getInverseRepresentation(Language lang)
```

---

**getInverseLabel**

```
public java.lang.String getInverseLabel()
```

---

**getInverseLabel**

```
public java.lang.String getInverseLabel(Language lang)
```

---

**getInverseDescription**

```
public java.lang.String getInverseDescription()
```

---

(continued from last page)

**getInverseDescription**

```
public java.lang.String getInverseDescription(Language lang)
```

---

**readCsvLine**

```
public void readCsvLine(java.util.List csvLine)
```

---

**writeCsvLine**

```
public void writeCsvLine(CSVWriter writer)
```

## eu.etaxonomy.cdm.model.common Class Representation

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.LanguageString
        +-eu.etaxonomy.cdm.model.common.Representation
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **Representation**  
extends [LanguageString](#)

workaround for enumerations

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.LanguageString](#)

|                      |
|----------------------|
| <a href="#">text</a> |
|----------------------|

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">Representation()</a>  |
| public | <a href="#">Representation(java.lang.String text, java.lang.String label, LanguageLang)</a> |

### Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getAbbreviatedLabel()</a>                                  |
| java.lang.String | <a href="#">getDescription()</a>                                       |
| java.lang.String | <a href="#">getLabel()</a>   |
| void             | <a href="#">setAbbreviatedLabel(java.lang.String abbreviatedLabel)</a> |
| void             | <a href="#">setDescription(java.lang.String text)</a>                  |
| void             | <a href="#">setLabel(java.lang.String label)</a>                       |
| java.lang.String | <a href="#">toString()</a>   |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.LanguageString](#)

[getLanguage](#), [getLanguageLabel](#), [getLanguageLabel](#), [getLanguageText](#), [getLanguageText](#),  
[getText](#), [setLanguage](#), [setText](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### Representation

```
public Representation()
```

### Representation

```
public Representation(java.lang.String text,  

                     java.lang.String label,  

                     Language lang)
```

## Methods

### getLabel

```
public java.lang.String getLabel()
```

### setLabel

```
public void setLabel(java.lang.String label)
```

### getAbbreviatedLabel

```
public java.lang.String getAbbreviatedLabel()
```

---

(continued from last page)

## **setAbbreviatedLabel**

```
public void setAbbreviatedLabel(java.lang.String abbreviatedLabel)
```

---

## **getDescription**

```
public java.lang.String getDescription()
```

---

## **setDescription**

```
protected void setDescription(java.lang.String text)
```

---

## **toString**

```
public java.lang.String toString()
```

Returns the class, id and uid as a string for any CDM object. For example: Taxon#13

## eu.etaxonomy.cdm.model.common Class Rights

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.LanguageString
        +-eu.etaxonomy.cdm.model.common.Rights
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **Rights**  
extends [LanguageString](#)

Typically, rights information includes a statement about various property rights associated with the resource, including intellectual property rights. <http://purl.org/dc/elements/1.1/rights> <http://dublincore.org/documents/dcmi- terms/>

### Fields inherited from class [eu.etaxonomy.cdm.model.common.LanguageString](#)

[text](#)

## Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">Rights</a> (java.lang.String text, <a href="#">Language</a> lang) |
|--------|---|

## Method Summary

|                            |  |
|----------------------------|--|
| java.lang.String           | <a href="#">getAbbreviatedText</a> ()                                      |
| <a href="#">Agent</a>      | <a href="#">getAgent</a> ()  |
| <a href="#">RightsTerm</a> | <a href="#">getType</a> ()   |
| java.lang.String           | <a href="#">getUri</a> ()  |
| void                       | <a href="#">setAbbreviatedText</a> (java.lang.String abbreviatedStatement) |
| void                       | <a href="#">setAgent</a> ( <a href="#">Agent</a> agent)                    |
| void                       | <a href="#">setType</a> ( <a href="#">RightsTerm</a> type)                 |
| void                       | <a href="#">setUri</a> (java.lang.String uri)                              |

### Methods inherited from class [eu.etaxonomy.cdm.model.common.LanguageString](#)

|  |
|--|
| <a href="#">getLanguage</a> , <a href="#">getLanguageLabel</a> , <a href="#">getLanguageLabel</a> , <a href="#">getLanguageText</a> , <a href="#">getLanguageText</a> ,<br><a href="#">getText</a> , <a href="#">setLanguage</a> , <a href="#">setText</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### Rights

```
public Rights(java.lang.String text,
             Language lang)
```

## Methods

### getType

```
public RightsTerm getType()
```

### setType

```
public void setType(RightsTerm type)
```

### getUri

```
public java.lang.String getUri()
```

### setUri

```
public void setUri(java.lang.String uri)
```

(continued from last page)

## **getAbbreviatedText**

```
public java.lang.String getAbbreviatedText()
```

---

## **setAbbreviatedText**

```
public void setAbbreviatedText(java.lang.String abbreviatedStatement)
```

---

## **getAgent**

```
public Agent getAgent()
```

---

## **setAgent**

```
public void setAgent(Agent agent)
```

## eu.etaxonomy.cdm.model.common Class RightsTerm

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.RightsTerm

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

### public class RightsTerm

extends [DefinedTermBase](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">RightsTerm</a> (java.lang.String term, java.lang.String label) |
|--------|--|

### Method Summary

|                                   |  |
|-----------------------------------|--|
| static <a href="#">RightsTerm</a> | <a href="#">ACCESS_RIGHTS()</a><br>http://purl.org/dc/terms/accessRights |
| static <a href="#">RightsTerm</a> | <a href="#">COPYRIGHT()</a>  |
| static <a href="#">RightsTerm</a> | <a href="#">LICENSE()</a>  |

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

---

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### RightsTerm

```
public RightsTerm(java.lang.String term,  
                  java.lang.String label)
```

## Methods

### ACCESS\_RIGHTS

```
public final static RightsTerm ACCESS_RIGHTS()
```

<http://purl.org/dc/terms/accessRights>

---

### COPYRIGHT

```
public final static RightsTerm COPYRIGHT()
```

---

### LICENSE

```
public final static RightsTerm LICENSE()
```

## eu.etaxonomy.cdm.model.common Class TermBase

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
```

**All Implemented Interfaces:**  
java.io.Serializable

**Direct Known Subclasses:**  
[FeatureTree](#), [DefinedTermBase](#), [TermVocabulary](#)

public abstract class **TermBase**  
 extends [VersionableEntity](#)

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">TermBase()</a>  |
| public | <a href="#">TermBase(java.lang.String term, java.lang.String label)</a> |

### Method Summary

|                  |   |
|------------------|---|
| void             | <a href="#">addRepresentation(Representation representation)</a>    |
| boolean          | <a href="#">equals(java.lang.Object obj)</a>                        |
| java.lang.String | <a href="#">getDescription()</a>                                    |
| java.lang.String | <a href="#">getDescription(Language lang)</a>                       |
| java.lang.String | <a href="#">getLabel()</a>  |
| java.lang.String | <a href="#">getLabel(Language lang)</a>                             |
| Representation   | <a href="#">getRepresentation(Language lang)</a>                    |
| java.util.Set    | <a href="#">getRepresentations()</a>                                |
| java.lang.String | <a href="#">getUri()</a>  |
| void             | <a href="#">removeRepresentation(Representation representation)</a> |
| void             | <a href="#">setRepresentations(java.util.Set representations)</a>   |

|                  |  |
|------------------|--|
| void             | <a href="#">setUri(java.lang.String uri)</a> |
| java.lang.String | <a href="#">toString()</a>                   |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### TermBase

```
public TermBase()
```

### TermBase

```
public TermBase(java.lang.String term,  
               java.lang.String label)
```

## Methods

### getRepresentations

```
public java.util.Set getRepresentations()
```

### setRepresentations

```
public void setRepresentations(java.util.Set representations)
```

### addRepresentation

```
public void addRepresentation(Representation representation)
```

---

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---

## **removeRepresentation**

```
public void removeRepresentation(Representation representation)
```

---

## **getRepresentation**

```
public Representation getRepresentation(Language lang)
```

---

## **getUri**

```
public java.lang.String getUri()
```

---

## **setUri**

```
public void setUri(java.lang.String uri)
```

---

## **getLabel**

```
public java.lang.String getLabel()
```

---

## **getLabel**

```
public java.lang.String getLabel(Language lang)
```

---

## **getDescription**

```
public java.lang.String getDescription()
```

---

## **getDescription**

```
public java.lang.String getDescription(Language lang)
```

---

## **equals**

```
public boolean equals(java.lang.Object obj)
```

Is true if UUID and created timestamp are the same for the passed Object and this one.

---

(continued from last page)

## **toString**

public java.lang.String **toString()**

Returns the class, id and uuid as a string for any CDM object. For example: Taxon#13

## eu.etaxonomy.cdm.model.common Class TermVocabulary

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.TermVocabulary
```

**All Implemented Interfaces:**

java.lang.Iterable, java.io.Serializable

**Direct Known Subclasses:**

[OrderedTermVocabulary](#)

```
public class TermVocabulary
extends TermBase
implements java.io.Serializable, java.lang.Iterable
```

A single enumeration must only contain DefinedTerm instances of one kind (=class)

### Field Summary

|           |                           |
|-----------|---------------------------|
| protected | <a href="#">termClass</a> |
| public    | <a href="#">terms</a>     |

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">TermVocabulary()</a>  |
| public | <a href="#">TermVocabulary(java.lang.String term, java.lang.String label, java.lang.String termSourceUri)</a> |

### Method Summary

|                                       |   |
|---------------------------------------|---|
| void                                  | <a href="#">addTerm(DefinedTermBase term)</a>   |
| static <a href="#">TermVocabulary</a> | <a href="#">findByUuid(java.util.UUID uuid)</a> |
| <a href="#">java.util.Set</a>         | <a href="#">getNewTermSet()</a>                 |
| <a href="#">java.util.Set</a>         | <a href="#">getPersistentTerms()</a>            |
| <a href="#">java.lang.Class</a>       | <a href="#">getTermClass()</a>                  |
| <a href="#">java.util.Set</a>         | <a href="#">getTerms()</a>                      |

|                                       |  |
|---------------------------------------|--|
| java.lang.String                      | <a href="#">getTermSourceUri()</a>                               |
| static <a href="#">TermVocabulary</a> | <a href="#">getUUID(java.util.UUID uuid)</a>                     |
| java.util.Iterator                    | <a href="#">iterator()</a>                                       |
| static <a href="#">TermVocabulary</a> | <a href="#">LANGUAGE()</a>                                       |
| void                                  | <a href="#">removeTerm(DefinedTermBase term)</a>                 |
| void                                  | <a href="#">setPersistentTerms(java.util.Set terms)</a>          |
| void                                  | <a href="#">setTerms(java.util.Set terms)</a>                    |
| void                                  | <a href="#">setTermSourceUri(java.lang.String vocabularyUri)</a> |
| int                                   | <a href="#">size()</a>   |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [java.lang.Iterable](#)

[iterator](#)

## Fields

### termClass

protected java.lang.Class **termClass**

(continued from last page)

---

## terms

```
public java.util.Set terms
```

---

## Constructors

### TermVocabulary

```
public TermVocabulary( )
```

---

### TermVocabulary

```
public TermVocabulary(java.lang.String term,  
                      java.lang.String label,  
                      java.lang.String termSourceUri)
```

---

## Methods

### findByUuid

```
public static TermVocabulary findByUuid(java.util.UUID uuid)
```

---

### getUUID

```
public final static TermVocabulary getUUID(java.util.UUID uuid)
```

---

### LANGUAGE

```
public final static TermVocabulary LANGUAGE( )
```

---

### getNewTermSet

```
protected java.util.Set getNewTermSet( )
```

---

### getTerms

```
public java.util.Set getTerms( )
```

(continued from last page)

**setTerms**

```
protected void setTerms(java.util.Set terms)
```

---

**getPersistentTerms**

```
public java.util.Set getPersistentTerms()
```

---

**setPersistentTerms**

```
protected void setPersistentTerms(java.util.Set terms)
```

---

**addTerm**

```
public void addTerm(DefinedTermBase term)  
throws WrongTermTypeException
```

---

**removeTerm**

```
public void removeTerm(DefinedTermBase term)
```

---

**getTermSourceUri**

```
public java.lang.String getTermSourceUri()
```

---

**setTermSourceUri**

```
public void setTermSourceUri(java.lang.String vocabularyUri)
```

---

**getTermClass**

```
public java.lang.Class getTermClass()
```

---

**iterator**

```
public java.util.Iterator iterator()
```

---

**size**

```
public int size()
```

(continued from last page)

## eu.etaxonomy.cdm.model.common Class TimePeriod

```
java.lang.Object
+-eu.etaxonomy.cdm.model.common.TimePeriod
```

---

```
public class TimePeriod
extends java.lang.Object
```

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">TimePeriod()</a>   |
| public | <a href="#">TimePeriod(java.util.Calendar startDate)</a>                             |
| public | <a href="#">TimePeriod(java.util.Calendar startDate, java.util.Calendar endDate)</a> |

### Method Summary

|                    |  |
|--------------------|--|
| java.util.Calendar | <a href="#">getEnd()</a>                           |
| java.util.Calendar | <a href="#">getStart()</a>                         |
| void               | <a href="#">setEnd(java.util.Calendar end)</a>     |
| void               | <a href="#">setStart(java.util.Calendar start)</a> |

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

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

### Constructors

#### TimePeriod

```
public TimePeriod()
```

---

#### TimePeriod

```
public TimePeriod(java.util.Calendar startDate)
```

(continued from last page)

## TimePeriod

```
public TimePeriod(java.util.Calendar startDate,  
                  java.util.Calendar endDate)
```

## Methods

### getStart

```
public java.util.Calendar getStart()
```

---

### setStart

```
public void setStart(java.util.Calendar start)
```

---

### getEnd

```
public java.util.Calendar getEnd()
```

---

### setEnd

```
public void setEnd(java.util.Calendar end)
```

## eu.etaxonomy.cdm.model.common Class VersionableEntity

```
java.lang.Object
+-eu.etaxonomy.cdm.model.common.CdmBase
  +-eu.etaxonomy.cdm.model.common.VersionableEntity
```

**All Implemented Interfaces:**  
java.io.Serializable

**Direct Known Subclasses:**

[GenBankAccession](#), [Locus](#), [FeatureNode](#), [StateData](#), [StatisticalMeasurementValue](#), [AnnotatableEntity](#),  
[Extension](#), [LanguageString](#), [Marker](#), [MediaInstance](#), [TermBase](#), [Address](#), [Contact](#), [InstitutionalMembership](#)

public abstract class **VersionableEntity**  
extends [CdmBase](#)

The class keeps track of versions via a full linked list to different version objects, or a simple updated/updatedBy property in the same object. Full versioning allows concrete subclasses to keep track of previous or later versions of an object. A different version is another (persistent) java object, but with the same UUID. The version history is established as a linked list of the version objects in time. If versioning via the linked list is used, updated/updatedBy is the same as created/createdBy (better NULL?). Versioning can be turned off and in this case this class provides updated/updatedBy to keep track of the latest change event.

**Parameters:**

T

### Constructor Summary

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

### Method Summary

|                                    |  |
|------------------------------------|--|
| <a href="#">VersionableEntity</a>  | <a href="#">getNextVersion()</a><br>Returns the succeeding version of this object with the same UUID |
| <a href="#">VersionableEntity</a>  | <a href="#">getPreviousVersion()</a>   |
| <a href="#">java.util.Calendar</a> | <a href="#">getUpdated()</a>   |
| <a href="#">Person</a>             | <a href="#">getUpdatedBy()</a>   |
| <a href="#">java.util.Calendar</a> | <a href="#">getValidFrom()</a><br>based on created   |
| <a href="#">java.util.Calendar</a> | <a href="#">getValidTo()</a><br>based on updated   |
| void                               | <a href="#">setNextVersion(<a href="#">VersionableEntity</a> nextVersion)</a>                        |
| void                               | <a href="#">setPreviousVersion(<a href="#">VersionableEntity</a> previousVersion)</a>                |
| void                               | <a href="#">setUpdated(<a href="#">java.util.Calendar</a> updated)</a>                               |

|      |   |
|------|---|
| void | <a href="#">setUpdatedBy(<u>Person</u> updatedBy)</a> |
|------|---|

**Methods inherited from class** [eu.ettaonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### VersionableEntity

public **VersionableEntity()**

## Methods

### getNextVersion

public [VersionableEntity](#) **getNextVersion()**

Returns the succeeding version of this object with the same UUID

**Returns:**

next, i.e. succeeding version of this object

### setNextVersion

public void **setNextVersion([VersionableEntity](#) nextVersion)**

### getPreviousVersion

public [VersionableEntity](#) **getPreviousVersion()**

### setPreviousVersion

public void **setPreviousVersion([VersionableEntity](#) previousVersion)**

(continued from last page)

## getUpdatedBy

```
public Person getUpdatedBy()
```

---

## setUpdatedBy

```
public void setUpdatedBy(Person updatedBy)
```

**Parameters:**

updatedBy - updatedBy

---

## getUpdated

```
public java.util.Calendar getUpdated()
```

**Returns:**

---

## setUpdated

```
public void setUpdated(java.util.Calendar updated)
```

**Parameters:**

updated - updated

---

## getValidFrom

```
public java.util.Calendar getValidFrom()
```

based on created

---

## getValidTo

```
public java.util.Calendar getValidTo()
```

based on updated

## eu.etaxonomy.cdm.model.common Class WrongTermTypeException

```
java.lang.Object
  +-java.lang.Throwable
    +-java.lang.Exception
      +-eu.etaxonomy.cdm.model.common.WrongTermTypeException
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class WrongTermTypeException**

extends java.lang.Exception

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">WrongTermTypeException( )</a>   |
| public | <a href="#">WrongTermTypeException(java.lang.String arg0)</a>                           |
| public | <a href="#">WrongTermTypeException(java.lang.Throwable arg0)</a>                        |
| public | <a href="#">WrongTermTypeException(java.lang.String arg0, java.lang.Throwable arg1)</a> |

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

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

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

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

### Constructors

#### WrongTermTypeException

**public WrongTermTypeException()**

#### WrongTermTypeException

**public WrongTermTypeException(java.lang.String arg0)**

## WrongTermTypeException

```
public WrongTermTypeException(java.lang.Throwable arg0)
```

---

## WrongTermTypeException

```
public WrongTermTypeException(java.lang.String arg0,  
                           java.lang.Throwable arg1)
```

---

## Package

# eu.etaxonomy.cdm.model.description

## Package: "description"

Provides classes:

- to describe specimens, observations or taxa
- to associate other factual informations to specimens, observations or taxa (including distribution)
- to support identification by means of keys

## Related Documentation

- [Structured Descriptive Data \(TDWG\)](#)
- [ABCD schema](#)

## UML Diagrams

## Description

## Keys

## eu.etaxonomy.cdm.model.description Class AbsenceTerm

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.PresenceAbsenceTermBase
              +-eu.etaxonomy.cdm.model.description.AbsenceTerm

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

---

**public class AbsenceTerm**  
extends [PresenceAbsenceTermBase](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.OrderedTermBase</a> |
|--|

[orderIndex](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|--|

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">AbsenceTerm(java.lang.String term, java.lang.String label)</a> |
|--------|--|

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.OrderedTermBase</a> |
|---|

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|---|

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

|  |
|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.TermBase</a> |
|--|

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

## Constructors

### AbsenceTerm

public **AbsenceTerm**( )

### AbsenceTerm

public **AbsenceTerm**(java.lang.String term,  
                           java.lang.String label)

# eu.etaxonomy.cdm.model.description Class CategoricalData

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase
            +-eu.etaxonomy.cdm.model.description.CategoricalData
```

## All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **CategoricalData**

extends [FeatureBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|      |                                       |
|------|---------------------------------------|
| void | <a href="#">addState(State state)</a> |
|------|---------------------------------------|

|         |                                    |
|---------|------------------------------------|
| boolean | <a href="#">getOrderRelevant()</a> |
|---------|------------------------------------|

|                |                             |
|----------------|-----------------------------|
| java.util.List | <a href="#">getStates()</a> |
|----------------|-----------------------------|

|      |  |
|------|--|
| void | <a href="#">removeState(State state)</a> |
|------|--|

|      |   |
|------|---|
| void | <a href="#">setOrderRelevant(boolean orderRelevant)</a> |
|------|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.description.FeatureBase](#)

[addMedia](#), [addModifier](#), [addModifyingText](#), [addModifyingText](#), [getMedia](#), [getModifiers](#), [getModifyingText](#), [getType](#), [removeMedia](#), [removeModifier](#), [removeModifyingText](#), [setMedia](#), [setModifiers](#), [setModifyingText](#), [setType](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#), [setCitationMicroReference](#), [setOriginalNameString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### CategoricalData

```
public CategoricalData()
```

## Methods

### getStates

```
public java.util.List getStates()
```

### addState

```
public void addstate(State state)
```

### removeState

```
public void removeState(State state)
```

---

## **getOrderRelevant**

```
public boolean getOrderRelevant()
```

---

## **setOrderRelevant**

```
public void setOrderRelevant(boolean orderRelevant)
```

## eu.etaxonomy.cdm.model.description Class CommonTaxonName

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase
            +-eu.etaxonomy.cdm.model.description.CommonTaxonName

```

### All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **CommonTaxonName**

extends [FeatureBase](#)

only valid for Taxa, not specimen/occurrences. Check DescriptionBase relation.

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                          |                               |
|--------------------------|-------------------------------|
| <a href="#">Language</a> | <a href="#">getLanguage()</a> |
|--------------------------|-------------------------------|

|                  |                           |
|------------------|---------------------------|
| java.lang.String | <a href="#">getName()</a> |
|------------------|---------------------------|

|      |  |
|------|--|
| void | <a href="#">setLanguage(<a href="#">Language</a> language)</a> |
|------|--|

|      |  |
|------|--|
| void | <a href="#">setName(java.lang.String name)</a> |
|------|--|

#### Methods inherited from class [eu.etaxonomy.cdm.model.description.FeatureBase](#)

[addMedia](#), [addModifier](#), [addModifyingText](#), [addModifyingText](#), [getMedia](#), [getModifiers](#),  
[getModifyingText](#), [getType](#), [removeMedia](#), [removeModifier](#), [removeModifyingText](#),  
[setMedia](#), [setModifiers](#), [setModifyingText](#), [setType](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

---

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### CommonTaxonName

public [CommonTaxonName](#)()

## Methods

### getLanguage

public [Language](#) [getLanguage](#)()

---

### setLanguage

public void [setLanguage](#)([Language](#) language)

---

### getName

public [java.lang.String](#) [getName](#)()

(continued from last page)

## **setName**

public void **setName**(java.lang.String name)

### **Parameters:**

name - name

# eu.etaxonomy.cdm.model.description Class DescriptionBase

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.description.DescriptionBase
```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#)

## Direct Known Subclasses:

[SpecimenDescription](#), [TaxonDescription](#)

public abstract class **DescriptionBase**

extends [IdentifiableEntity](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|      |   |
|------|---|
| void | <a href="#">addFeature(FeatureBase feature)</a> |
|------|---|

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|               |                               |
|---------------|-------------------------------|
| java.util.Set | <a href="#">getFeatures()</a> |
|---------------|-------------------------------|

|                               |                             |
|-------------------------------|-----------------------------|
| <a href="#">ReferenceBase</a> | <a href="#">getSource()</a> |
|-------------------------------|-----------------------------|

|      |  |
|------|--|
| void | <a href="#">removeFeature(FeatureBase feature)</a> |
|------|--|

|      |   |
|------|---|
| void | <a href="#">setFeatures(java.util.Set features)</a> |
|------|---|

|      |   |
|------|---|
| void | <a href="#">setSource(ReferenceBase source)</a> |
|------|---|

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

## Constructors

### DescriptionBase

public [DescriptionBase\(\)](#)

## Methods

### generateTitle

public java.lang.String [generateTitle\(\)](#)

### getSource

public [ReferenceBase](#) [getSource\(\)](#)

---

(continued from last page)

## **setSource**

```
public void setSource(ReferenceBase source)
```

---

## **getFeatures**

```
public java.util.Set getFeatures()
```

---

## **setFeatures**

```
protected void setFeatures(java.util.Set features)
```

---

## **addFeature**

```
public void addFeature(FeatureBase feature)
```

---

## **removeFeature**

```
public void removeFeature(FeatureBase feature)
```

# eu.etaxonomy.cdm.model.description Class Distribution

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase
            +-eu.etaxonomy.cdm.model.description.Distribution

```

## All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **Distribution**  
extends [FeatureBase](#)

fact attribute contains the concrete occurrence term like "Extinct" This allows all terms to enter the database and classify them basically according to class hierarchy of distribution. {validInRegion mandatory} {type is "distribution"}

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|   |   |
|---|---|
| <a href="#">NamedArea</a>               | <a href="#">getArea()</a>   |
| <a href="#">PresenceAbsenceTermBase</a> | <a href="#">getStatus()</a>   |
| void                                    | <a href="#">setArea(<a href="#">NamedArea</a> area)</a>                   |
| void                                    | <a href="#">setStatus(<a href="#">PresenceAbsenceTermBase</a> status)</a> |

### Methods inherited from class [eu.etaxonomy.cdm.model.description.FeatureBase](#)

[addMedia](#), [addModifier](#), [addModifyingText](#), [addModifyingText](#), [getMedia](#), [getModifiers](#), [getModifyingText](#), [getType](#), [removeMedia](#), [removeModifier](#), [removeModifyingText](#), [setMedia](#), [setModifiers](#), [setModifyingText](#), [setType](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#), [setCitationMicroReference](#), [setOriginalNameString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### Distribution

```
public Distribution()
```

## Methods

### getArea

```
public NamedArea getArea()
```

### setArea

```
public void setArea(NamedArea area)
```

### getStatus

```
public PresenceAbsenceTermBase getStatus()
```

## setStatus

```
public void setStatus(PresenceAbsenceTermBase status)
```

## eu.etaxonomy.cdm.model.description Class FeatureBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase

```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

### Direct Known Subclasses:

[CategoricalData](#), [CommonTaxonName](#), [Distribution](#), [IndividualsAssociation](#), [QuantitativeData](#),  
[TaxonInteraction](#), [TextData](#)

public abstract class **FeatureBase**

extends [ReferencedEntityBase](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                                  |  |
|----------------------------------|--|
| void                             | <a href="#">addMedia(Media media)</a>                                  |
| void                             | <a href="#">addModifier(Modifier modifier)</a>                         |
| void                             | <a href="#">addModifyingText(LanguageString description)</a>           |
| void                             | <a href="#">addModifyingText(java.lang.String text, Language lang)</a> |
| java.util.Set                    | <a href="#">getMedia()</a>   |
| java.util.Set                    | <a href="#">getModifiers()</a>   |
| <a href="#">MultilanguageSet</a> | <a href="#">getModifyingText()</a>                                     |
| <a href="#">FeatureType</a>      | <a href="#">getType()</a>  |

|      |  |
|------|--|
| void | <a href="#">removeMedia(Media media)</a>                         |
| void | <a href="#">removeModifier(Modifier modifier)</a>                |
| void | <a href="#">removeModifyingText(Language lang)</a>               |
| void | <a href="#">setMedia(java.util.Set media)</a>                    |
| void | <a href="#">setModifiers(java.util.Set modifiers)</a>            |
| void | <a href="#">setModifyingText(MultilanguageSet modifyingText)</a> |
| void | <a href="#">setType(FeatureType type)</a>                        |

**Methods inherited from class eu.etaxonomy.cdm.model.common.ReferencedEntityBase**

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

**Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity**

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity**

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase**

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface eu.etaxonomy.cdm.model.common.IReferencedEntity**

[getCitation](#)

**Constructors****FeatureBase**

public **FeatureBase()**

(continued from last page)

## Methods

### getMedia

```
public java.util.Set getMedia()
```

---

### setMedia

```
protected void setMedia(java.util.Set media)
```

---

### addMedia

```
public void addMedia(Media media)
```

---

### removeMedia

```
public void removeMedia(Media media)
```

---

### getType

```
public FeatureType getType()
```

---

### setType

```
public void setType(FeatureType type)
```

---

### getModifiers

```
public java.util.Set getModifiers()
```

---

### setModifiers

```
protected void setModifiers(java.util.Set modifiers)
```

---

### addModifier

```
public void addModifier(Modifier modifier)
```

## **removeModifier**

```
public void removeModifier(Modifier modifier)
```

---

## **getModifyingText**

```
public MultilanguageSet getModifyingText()
```

---

## **setModifyingText**

```
protected void setModifyingText(MultilanguageSet modifyingText)
```

---

## **addModifyingText**

```
public void addModifyingText(LanguageString description)
```

---

## **addModifyingText**

```
public void addModifyingText(java.lang.String text,  
                             Language lang)
```

---

## **removeModifyingText**

```
public void removeModifyingText(Language lang)
```

## eu.etaxonomy.cdm.model.description Class FeatureNode

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.description.FeatureNode
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class FeatureNode**  
extends [VersionableEntity](#)

### Constructor Summary

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

### Method Summary

|                             |  |
|-----------------------------|--|
| java.util.List              | <a href="#">getChildren()</a>                        |
| <a href="#">FeatureNode</a> | <a href="#">getParent()</a>                          |
| <a href="#">FeatureType</a> | <a href="#">getType()</a>                            |
| void                        | <a href="#">setChildren(java.util.List children)</a> |
| void                        | <a href="#">setParent(FeatureNode parent)</a>        |
| void                        | <a href="#">setType(FeatureType type)</a>            |

### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### FeatureNode

```
public FeatureNode()
```

## Methods

### getType

```
public FeatureType getType()
```

### setType

```
public void setType(FeatureType type)
```

### getParent

```
public FeatureNode getParent()
```

### setParent

```
public void setParent(FeatureNode parent)
```

### getChildren

```
public java.util.List getChildren()
```

### setChildren

```
public void setChildren(java.util.List children)
```

## eu.etaxonomy.cdm.model.description Class FeatureTree

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.description.FeatureTree
```

All Implemented Interfaces:  
java.io.Serializable

public class **FeatureTree**  
extends [TermBase](#)

Feature trees arrange concepts and features/characters. They may also be used to define flat char. subsets for filtering purposes. A feature tree is build out of feature nodes, which can be hierarchically organised

### Constructor Summary

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

### Method Summary

|                             |   |
|-----------------------------|---|
| java.util.Set               | <a href="#">getNodes()</a>                                |
| <a href="#">FeatureNode</a> | <a href="#">getRoot()</a>                                 |
| void                        | <a href="#">setNodes(java.util.Set nodes)</a>             |
| void                        | <a href="#">setRoot(<a href="#">FeatureNode</a> root)</a> |

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### FeatureTree

```
public FeatureTree()
```

## Methods

### getNodes

```
public java.util.Set getNodes()
```

---

### setNodes

```
public void setNodes(java.util.Set nodes)
```

---

### getRoot

```
public FeatureNode getRoot()
```

---

### setRoot

```
public void setRoot(FeatureNode root)
```

## eu.etaxonomy.cdm.model.description Class FeatureType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.description.FeatureType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class FeatureType**  
extends [DefinedTermBase](#)

NEEDS TO BE COMPLEMENTED SPM / TDWG <http://rs.tdwg.org/ontology/voc/SpeciesProfileModel>

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|--|

|  |
|--|
| <a href="#">vocabulary</a> , <a href="#">vocabularyStore</a> |
|--|

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">FeatureType</a> (java.lang.String term, java.lang.String label) |
|--------|---|

### Method Summary

|                                    |  |
|------------------------------------|--|
| void                               | <a href="#">addRecommendedModifierEnumeration</a> ( <a href="#">TermVocabulary</a><br><a href="#">recommendedModifierEnumeration</a> )   |
| void                               | <a href="#">addRecommendedStatisticalMeasure</a> ( <a href="#">StatisticalMeasure</a><br><a href="#">recommendedStatisticalMeasure</a> ) |
| void                               | <a href="#">addSupportedCategoricalEnumeration</a> ( <a href="#">TermVocabulary</a><br><a href="#">supportedCategoricalEnumeration</a> ) |
| static <a href="#">FeatureType</a> | <a href="#">COMMON_NAME</a> ()   |
| static <a href="#">FeatureType</a> | <a href="#">DISTRIBUTION</a> ()  |
| java.util.Set                      | <a href="#">getRecommendedModifierEnumeration</a> ()   |
| java.util.Set                      | <a href="#">getRecommendedStatisticalMeasures</a> ()   |
| java.util.Set                      | <a href="#">getSupportedCategoricalEnumerations</a> ()   |

|                                 |  |
|---------------------------------|--|
| <code>static FeatureType</code> | <code>HYBRID_PARENT()</code><br>special kind of OrganismInteraction                                |
| boolean                         | <code>isSupportsCommonTaxonName()</code>   |
| boolean                         | <code>isSupportsDistribution()</code>  |
| boolean                         | <code>isSupportsIndividualAssociation()</code>   |
| boolean                         | <code>isSupportsQuantitativeData()</code>  |
| boolean                         | <code>isSupportsTaxonInteraction()</code>  |
| boolean                         | <code>isSupportsTextData()</code>  |
| void                            | <code>removeRecommendedModifierEnumeration(TermVocabulary recommendedModifierEnumeration)</code>   |
| void                            | <code>removeRecommendedStatisticalMeasure(StatisticalMeasure recommendedStatisticalMeasure)</code> |
| void                            | <code>removeSupportedCategoricalEnumeration(TermVocabulary supportedCategoricalEnumeration)</code> |
| void                            | <code>setRecommendedModifierEnumeration(java.util.Set recommendedModifierEnumeration)</code>       |
| void                            | <code>setRecommendedStatisticalMeasures(java.util.Set recommendedStatisticalMeasures)</code>       |
| void                            | <code>setSupportedCategoricalEnumerations(java.util.Set supportedCategoricalEnumerations)</code>   |
| void                            | <code>setSupportsCommonTaxonName(boolean supportsCommonTaxonName)</code>                           |
| void                            | <code>setSupportsDistribution(boolean supportsDistribution)</code>                                 |
| void                            | <code>setSupportsIndividualAssociation(boolean supportsIndividualAssociation)</code>               |
| void                            | <code>setSupportsQuantitativeData(boolean supportsQuantitativeData)</code>                         |
| void                            | <code>setSupportsTaxonInteraction(boolean supportsTaxonInteraction)</code>                         |
| void                            | <code>setSupportsTextData(boolean supportsTextData)</code>   |

**Methods inherited from class** `eu.etaxonomy.cdm.model.common.DefinedTermBase`

`addIncludes`, `addMedia`, `findByUuid`, `getGeneralizationOf`, `getIncludes`, `getKindOf`,  
`getMedia`, `getPartOf`, `getPersistentVocabulary`, `getVocabulary`, `readCsvLine`,  
`readCsvLine`, `removeIncludes`, `removeMedia`, `setGeneralizationOf`, `setIncludes`,  
`setKindOf`, `setMedia`, `setPartOf`, `setPersistentVocabulary`, `setVocabulary`,  
`setVocabularyStore`, `writeCsvLine`

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### FeatureType

```
public FeatureType(java.lang.String term,
                  java.lang.String label)
```

## Methods

### isSupportsQuantitativeData

```
public boolean isSupportsQuantitativeData()
```

### setSupportsQuantitativeData

```
public void setSupportsQuantitativeData(boolean supportsQuantitativeData)
```

### isSupportsTextData

```
public boolean isSupportsTextData()
```

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---

**setSupportsTextData**

```
public void setSupportsTextData(boolean supportsTextData)
```

---

**isSupportsDistribution**

```
public boolean isSupportsDistribution()
```

---

**setSupportsDistribution**

```
public void setSupportsDistribution(boolean supportsDistribution)
```

---

**isSupportsIndividualAssociation**

```
public boolean isSupportsIndividualAssociation()
```

---

**setSupportsIndividualAssociation**

```
public void setSupportsIndividualAssociation(boolean supportsIndividualAssociation)
```

---

**isSupportsTaxonInteraction**

```
public boolean isSupportsTaxonInteraction()
```

---

**setSupportsTaxonInteraction**

```
public void setSupportsTaxonInteraction(boolean supportsTaxonInteraction)
```

---

**isSupportsCommonTaxonName**

```
public boolean isSupportsCommonTaxonName()
```

---

**setSupportsCommonTaxonName**

```
public void setSupportsCommonTaxonName(boolean supportsCommonTaxonName)
```

---

(continued from last page)

## getRecommendedModifierEnumeration

```
public java.util.Set getRecommendedModifierEnumeration()
```

---

## setRecommendedModifierEnumeration

```
protected void setRecommendedModifierEnumeration(java.util.Set recommendedModifierEnumeration)
```

---

## addRecommendedModifierEnumeration

```
public void addRecommendedModifierEnumeration(TermVocabulary recommendedModifierEnumeration)
```

---

## removeRecommendedModifierEnumeration

```
public void removeRecommendedModifierEnumeration(TermVocabulary recommendedModifierEnumeration)
```

---

## getRecommendedStatisticalMeasures

```
public java.util.Set getRecommendedStatisticalMeasures()
```

---

## setRecommendedStatisticalMeasures

```
protected void setRecommendedStatisticalMeasures(java.util.Set recommendedStatisticalMeasures)
```

---

## addRecommendedStatisticalMeasure

```
public void addRecommendedStatisticalMeasure(StatisticalMeasure recommendedStatisticalMeasure)
```

---

## removeRecommendedStatisticalMeasure

```
public void removeRecommendedStatisticalMeasure(StatisticalMeasure recommendedStatisticalMeasure)
```

---

## getSupportedCategoricalEnumerations

```
public java.util.Set getSupportedCategoricalEnumerations()
```

## setSupportedCategoricalEnumerations

```
protected void setSupportedCategoricalEnumerations(java.util.Set  
supportedCategoricalEnumerations)
```

---

## addSupportedCategoricalEnumeration

```
public void addSupportedCategoricalEnumeration(TermVocabulary  
supportedCategoricalEnumeration)
```

---

## removeSupportedCategoricalEnumeration

```
public void removeSupportedCategoricalEnumeration(TermVocabulary  
supportedCategoricalEnumeration)
```

---

## DISTRIBUTION

```
public final static FeatureType DISTRIBUTION()
```

---

## HYBRID\_PARENT

```
public final static FeatureType HYBRID_PARENT()
```

special kind of OrganismInteraction

---

## COMMON\_NAME

```
public final static FeatureType COMMON_NAME()
```

## eu.etaxonomy.cdm.model.description Class IdentificationKey

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.Media
          +-eu.etaxonomy.cdm.model.description.IdentificationKey
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class IdentificationKey**  
extends [Media](#)

Dichotomous or multifurcating authored keys (incl. legacy data)

**Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity**

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|               |   |
|---------------|---|
| void          | <a href="#">addCoveredTaxon(Taxon taxon)</a>              |
| java.util.Set | <a href="#">getCoveredTaxa()</a>                          |
| void          | <a href="#">removeCoveredTaxon(Taxon taxon)</a>           |
| void          | <a href="#">setCoveredTaxa(java.util.Set coveredTaxa)</a> |

**Methods inherited from class eu.etaxonomy.cdm.model.common.Media**

[addDescription](#), [addDescription](#), [addInstance](#), [addRights](#), [getArtist](#), [getDescription](#), [getInstances](#), [getMediaCreated](#), [getRights](#), [getTitle](#), [removeDescription](#), [removeInstance](#), [removeRights](#), [setArtist](#), [setDescription](#), [setInstances](#), [setMediaCreated](#), [setRights](#), [setTitle](#)

**Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity**

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity**

---

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,
getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

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

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

## Constructors

**IdentificationKey**

```
public IdentificationKey()
```

## Methods

**getCoveredTaxa**

```
public java.util.Set getCoveredTaxa()
```

**setCoveredTaxa**

```
protected void setCoveredTaxa(java.util.Set coveredTaxa)
```

**addCoveredTaxon**

```
public void addCoveredTaxon(Taxon taxon)
```

**removeCoveredTaxon**

```
public void removeCoveredTaxon(Taxon taxon)
```

# eu.etaxonomy.cdm.model.description Class IndividualsAssociation

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase
            +-eu.etaxonomy.cdm.model.description.IndividualsAssociation
```

## All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **IndividualsAssociation**  
extends [FeatureBase](#)

{type is "host" or "hybrid\_parent"}

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|   |   |
|---|---|
| void                                      | <a href="#">addDescription(LanguageString description)</a>  |
| void                                      | <a href="#">addDescription(java.lang.String text, Language lang)</a>  |
| <a href="#">SpecimenOrObservationBase</a> | <a href="#">getAssociatedSpecimenOrObservation()</a>  |
| <a href="#">MultilanguageSet</a>          | <a href="#">getDescription()</a>  |
| void                                      | <a href="#">removeDescription(Language lang)</a>  |
| void                                      | <a href="#">setAssociatedSpecimenOrObservation(SpecimenOrObservationBase associatedSpecimenOrObservation)</a> |

### Methods inherited from class eu.etaxonomy.cdm.model.description.FeatureBase

[addMedia](#), [addModifier](#), [addModifyingText](#), [addModifyingText](#), [getMedia](#), [getModifiers](#), [getModifyingText](#), [getType](#), [removeMedia](#), [removeModifier](#), [removeModifyingText](#), [setMedia](#), [setModifiers](#), [setModifyingText](#), [setType](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### IndividualsAssociation

public **IndividualsAssociation()**

## Methods

### getAssociatedSpecimenOrObservation

public [SpecimenOrObservationBase](#) **getAssociatedSpecimenOrObservation()**

### setAssociatedSpecimenOrObservation

public void **setAssociatedSpecimenOrObservation**([SpecimenOrObservationBase](#)  
associatedSpecimenOrObservation)

---

(continued from last page)

## getDescription

```
public MultilanguageSet getDescription()
```

---

## addDescription

```
public void addDescription(LanguageString description)
```

---

## addDescription

```
public void addDescription(java.lang.String text,  
                           Language lang)
```

---

## removeDescription

```
public void removeDescription(Language lang)
```

## eu.etaxonomy.cdm.model.description Class MeasurementUnit

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.description.MeasurementUnit
```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

public class **MeasurementUnit**

extends [DefinedTermBase](#)

This class contains the measurement units such as "centimeter" or "degree Celsius"

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

#### Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">MeasurementUnit(java.lang.String term, java.lang.String label)</a> |
|--------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IDefTerm

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Constructors

### MeasurementUnit

```
public MeasurementUnit()
```

---

### MeasurementUnit

```
public MeasurementUnit(java.lang.String term,  
                      java.lang.String label)
```

# eu.etaxonomy.cdm.model.description Class Modifier

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.Modifier

```

## All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

## Direct Known Subclasses:

[DeterminationModifier](#), [Scope](#)

## public class Modifier

extends [OrderedTermBase](#)

This class contains possible modulations for the InfoItems such as "variance", "maximum", "often", "probably"

### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

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

|        |   |
|--------|---|
| public | <a href="#">Modifier(java.lang.String term, java.lang.String label)</a> |
|--------|---|

### Methods inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

```
addRepresentation, equals, getDescription, getLabel, getLabel,  

getRepresentation, getRepresentations, getUri, removeRepresentation,  

setRepresentations, setUri, toString
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

**Methods inherited from interface** [java.lang.Comparable](#)

```
compareTo
```

## Constructors

### Modifier

```
public Modifier()
```

### Modifier

```
public Modifier(java.lang.String term,  
                java.lang.String label)
```

# eu.etaxonomy.cdm.model.description Class PresenceAbsenceTermBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.PresenceAbsenceTermBase

```

**All Implemented Interfaces:**

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

**Direct Known Subclasses:**

[AbsenceTerm](#), [PresenceTerm](#)

public abstract class **PresenceAbsenceTermBase**

extends [OrderedTermBase](#)

**Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase**

[orderIndex](#)

**Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase**

[vocabulary](#), [vocabularyStore](#)

**Constructor Summary**

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

|        |  |
|--------|--|
| public | <a href="#">PresenceAbsenceTermBase(java.lang.String term, java.lang.String label)</a> |
|--------|--|

**Methods inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase**

|  |
|--|
| <a href="#">compareTo</a> , <a href="#">decreaseIndex</a> , <a href="#">equals</a> , <a href="#">incrementIndex</a> , <a href="#">isHigher</a> , <a href="#">isLower</a> , <a href="#">setVocabulary</a> |
|--|

**Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase**

|  |
|--|
| <a href="#">addIncludes</a> , <a href="#">addMedia</a> , <a href="#">findByUuid</a> , <a href="#">getGeneralizationOf</a> , <a href="#">getIncludes</a> , <a href="#">getKindOf</a> ,<br><a href="#">getMedia</a> , <a href="#">getPartOf</a> , <a href="#">getPersistentVocabulary</a> , <a href="#">getVocabulary</a> , <a href="#">readCsvLine</a> ,<br><a href="#">readCsvLine</a> , <a href="#">removeIncludes</a> , <a href="#">removeMedia</a> , <a href="#">setGeneralizationOf</a> , <a href="#">setIncludes</a> ,<br><a href="#">setKindOf</a> , <a href="#">setMedia</a> , <a href="#">setPartOf</a> , <a href="#">setPersistentVocabulary</a> , <a href="#">setVocabulary</a> ,<br><a href="#">setVocabularyStore</a> , <a href="#">writeCsvLine</a> |
|--|

**Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase**

```
addRepresentation, equals, getDescription, getLabel, getLabel,  

getRepresentation, getRepresentations, getUri, removeRepresentation,  

setRepresentations, setUri, toString
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

**Methods inherited from interface** [java.lang.Comparable](#)

```
compareTo
```

## Constructors

### PresenceAbsenceTermBase

```
public PresenceAbsenceTermBase()
```

### PresenceAbsenceTermBase

```
public PresenceAbsenceTermBase(java.lang.String term,  
                               java.lang.String label)
```

## eu.etaxonomy.cdm.model.description Class PresenceTerm

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.PresenceAbsenceTermBase
              +-eu.etaxonomy.cdm.model.description.PresenceTerm

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

---

**public class PresenceTerm**  
extends [PresenceAbsenceTermBase](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.OrderedTermBase</a> |
|--|

[orderIndex](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|--|

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |   |
|--------|---|
| public | <a href="#">PresenceTerm(java.lang.String term, java.lang.String label)</a> |
|--------|---|

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.OrderedTermBase</a> |
|---|

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|---|

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

|  |
|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.TermBase</a> |
|--|

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

## Constructors

### PresenceTerm

```
public PresenceTerm()
```

### PresenceTerm

```
public PresenceTerm(java.lang.String term,  
                    java.lang.String label)
```

# eu.etaxonomy.cdm.model.description Class QuantitativeData

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase
            +-eu.etaxonomy.cdm.model.description.QuantitativeData
```

## All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **QuantitativeData**

extends [FeatureBase](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

## Constructor Summary

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

## Method Summary

|                                 |  |
|---------------------------------|--|
| void                            | <a href="#">addStatisticalValue(StatisticalMeasurementValue statisticalValue)</a>    |
| float                           | <a href="#">getMax()</a>   |
| float                           | <a href="#">getMin()</a>   |
| java.util.Set                   | <a href="#">getStatisticalValues()</a>   |
| float                           | <a href="#">getTypicalLowerBoundary()</a>  |
| float                           | <a href="#">getTypicalUpperBoundary()</a>  |
| <a href="#">MeasurementUnit</a> | <a href="#">getUnit()</a>  |
| void                            | <a href="#">removeStatisticalValue(StatisticalMeasurementValue statisticalValue)</a> |
| void                            | <a href="#">setStatisticalValues(java.util.Set statisticalValues)</a>                |

|      |   |
|------|---|
| void | <a href="#">setUnit(MeasurementUnit unit)</a> |
|------|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.description.FeatureBase](#)

[addMedia](#), [addModifier](#), [addModifyingText](#), [addModifyingText](#), [getMedia](#), [getModifiers](#), [getModifyingText](#), [getType](#), [removeMedia](#), [removeModifier](#), [removeModifyingText](#), [setMedia](#), [setModifiers](#), [setModifyingText](#), [setType](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#), [setCitationMicroReference](#), [setOriginalNameString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### QuantitativeData

```
public QuantitativeData()
```

## Methods

### getStatisticalValues

```
public java.util.Set getStatisticalValues()
```

**setStatisticalValues**

```
protected void setStatisticalValues(java.util.Set statisticalValues)
```

---

**addStatisticalValue**

```
public void addStatisticalValue(StatisticalMeasurementValue statisticalValue)
```

---

**removeStatisticalValue**

```
public void removeStatisticalValue(StatisticalMeasurementValue statisticalValue)
```

---

**getUnit**

```
public MeasurementUnit getUnit()
```

---

**setUnit**

```
public void setUnit(MeasurementUnit unit)
```

---

**getMin**

```
public float getMin()
```

---

**getMax**

```
public float getMax()
```

---

**getTypicalLowerBoundary**

```
public float getTypicalLowerBoundary()
```

---

**getTypicalUpperBoundary**

```
public float getTypicalUpperBoundary()
```

---

## eu.etaxonomy.cdm.model.description Class Scope

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.Modifier
              +-eu.etaxonomy.cdm.model.description.Scope

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

### Direct Known Subclasses:

[Sex](#), [Stage](#)

public class **Scope**

extends [Modifier](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">Scope(java.lang.String term, java.lang.String label)</a> |
|--------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

```
addRepresentation, equals, getDescription, getLabel, getLabel,  

getRepresentation, getRepresentations, getUri, removeRepresentation,  

setRepresentations, setUri, toString
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

**Methods inherited from interface** [java.lang.Comparable](#)

```
compareTo
```

## Constructors

### Scope

```
public Scope()
```

### Scope

```
public Scope(java.lang.String term,  
           java.lang.String label)
```

# eu.etaxonomy.cdm.model.description

## Class Sex

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.Modifier
              +-eu.etaxonomy.cdm.model.description.Scope
                +-eu.etaxonomy.cdm.model.description.Sex
  
```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **Sex**  
extends [Scope](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">Sex(java.lang.String term, java.lang.String label)</a> |
|--------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

---

[addRepresentation](#), [equals](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

#### Methods inherited from interface [java.lang.Comparable](#)

[compareTo](#)

## Constructors

### Sex

public **Sex**( )

### Sex

public **Sex**(java.lang.String term,  
                   java.lang.String label)

# eu.etaxonomy.cdm.model.description Class SpecimenDescription

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.description.DescriptionBase
            +-eu.etaxonomy.cdm.model.description.SpecimenDescription
```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#)

public class **SpecimenDescription**  
extends [DescriptionBase](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|               |   |
|---------------|---|
| void          | <a href="#">addDescribedSpecimenOrObservations(SpecimenOrObservationBase describedSpecimenOrObservation)</a>    |
| java.util.Set | <a href="#">getDescribedSpecimenOrObservations()</a>  |
| void          | <a href="#">removeDescribedSpecimenOrObservations(SpecimenOrObservationBase describedSpecimenOrObservation)</a> |
| void          | <a href="#">setDescribedSpecimenOrObservations(java.util.Set describedSpecimenOrObservations)</a>               |

Methods inherited from class [eu.etaxonomy.cdm.model.description.DescriptionBase](#)

[addFeature](#), [generateTitle](#), [getFeatures](#), [getSource](#), [removeFeature](#), [setFeatures](#), [setSource](#)

Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

---

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

## Constructors

### SpecimenDescription

public [SpecimenDescription\(\)](#)

## Methods

### getDescribedSpecimenOrObservations

public java.util.Set [getDescribedSpecimenOrObservations\(\)](#)

### setDescribedSpecimenOrObservations

public void [setDescribedSpecimenOrObservations](#)(java.util.Set describedSpecimenOrObservations)

## **addDescribedSpecimenOrObservations**

```
public void addDescribedSpecimenOrObservations(SpecimenOrObservationBase  
describedSpecimenOrObservation)
```

---

## **removeDescribedSpecimenOrObservations**

```
public void removeDescribedSpecimenOrObservations(SpecimenOrObservationBase  
describedSpecimenOrObservation)
```

## eu.etaxonomy.cdm.model.description Class Stage

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.Modifier
              +-eu.etaxonomy.cdm.model.description.Scope
                +-eu.etaxonomy.cdm.model.description.Stage
  
```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **Stage**

extends [Scope](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">Stage(java.lang.String term, java.lang.String label)</a> |
|--------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

```
addRepresentation, equals, getDescription, getLabel, getLabel,  

getRepresentation, getRepresentations, getUri, removeRepresentation,  

setRepresentations, setUri, toString
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

**Methods inherited from interface** [java.lang.Comparable](#)

```
compareTo
```

## Constructors

### Stage

```
public Stage()
```

### Stage

```
public Stage(java.lang.String term,  
           java.lang.String label)
```

## eu.etaxonomy.cdm.model.description Class State

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.State

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **State**  
extends [OrderedTermBase](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

public [State\(\)](#)

public [State\(java.lang.String term, java.lang.String label\)](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

## Constructors

### State

`public State()`

### State

`public State(java.lang.String term,  
              java.lang.String label)`

# eu.etaxonomy.cdm.model.description

## Class StateData

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.description.StateData
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **StateData**  
extends [VersionableEntity](#)

### Constructor Summary

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

### Method Summary

|                                  |  |
|----------------------------------|--|
| void                             | <a href="#">addModifier(Modifier modifier)</a>                         |
| void                             | <a href="#">addModifyingText(LanguageString text)</a>                  |
| void                             | <a href="#">addModifyingText(java.lang.String text, Language lang)</a> |
| java.util.Set                    | <a href="#">getModifiers()</a>   |
| <a href="#">MultilanguageSet</a> | <a href="#">getModifyingText()</a>                                     |
| <a href="#">State</a>            | <a href="#">getState()</a>   |
| void                             | <a href="#">removeModifier(Modifier modifier)</a>                      |
| void                             | <a href="#">removeModifyingText(Language lang)</a>                     |
| void                             | <a href="#">setState(State state)</a>                                  |

### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

---

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

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

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

## Constructors

### StateData

```
public StateData()
```

## Methods

### getState

```
public State getState()
```

---

### setState

```
public void setState(State state)
```

---

### getModifiers

```
public java.util.Set getModifiers()
```

---

### addModifier

```
public void addModifier(Modifier modifier)
```

---

### removeModifier

```
public void removeModifier(Modifier modifier)
```

---

### getModifyingText

```
public MultilanguageSet getModifyingText()
```

(continued from last page)

---

## **addModifyingText**

```
public void addModifyingText(java.lang.String text,  
    Language lang)
```

---

## **addModifyingText**

```
public void addModifyingText(LanguageString text)
```

---

## **removeModifyingText**

```
public void removeModifyingText(Language lang)
```

## eu.etaxonomy.cdm.model.description Class StatisticalMeasure

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.description.StatisticalMeasure

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

public class **StatisticalMeasure**

extends [DefinedTermBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">StatisticalMeasure()</a>  |
| public | <a href="#">StatisticalMeasure(java.lang.String term, java.lang.String label)</a> |

### Method Summary

|  |  |
|--|--|
| static<br><a href="#">StatisticalMeasure</a> | <a href="#">AVERAGE()</a>                |
| static<br><a href="#">StatisticalMeasure</a> | <a href="#">MAX()</a>                    |
| static<br><a href="#">StatisticalMeasure</a> | <a href="#">MIN()</a>                    |
| static<br><a href="#">StatisticalMeasure</a> | <a href="#">SAMPLE_SIZE()</a>            |
| static<br><a href="#">StatisticalMeasure</a> | <a href="#">TYPICAL_LOWER_BOUNDARY()</a> |
| static<br><a href="#">StatisticalMeasure</a> | <a href="#">TYPICAL_UPPER_BOUNDARY()</a> |
| static<br><a href="#">StatisticalMeasure</a> | <a href="#">VARIANCE()</a>               |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

```
addIncludes, addMedia, findByUuid, getGeneralizationOf, getIncludes, getKindOf,  

getMedia, getPartOf, getPersistentVocabulary, getVocabulary, readCsvLine,  

readCsvLine, removeIncludes, removeMedia, setGeneralizationOf, setIncludes,  

setKindOf, setMedia, setPartOf, setPersistentVocabulary, setVocabulary,  

setVocabularyStore, writeCsvLine
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.TermBase](#)

```
addRepresentation, equals, getDescription, getDescription, getLabel, getLabel,  

getRepresentation, getRepresentations, getUri, removeRepresentation,  

setRepresentations, setUri, toString
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

wait
```

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Constructors

### StatisticalMeasure

```
public StatisticalMeasure()
```

### StatisticalMeasure

```
public StatisticalMeasure(java.lang.String term,  

                      java.lang.String label)
```

## Methods

### MIN

```
public final static StatisticalMeasure MIN()
```

---

(continued from last page)

---

## MAX

```
public final static StatisticalMeasure MAX()
```

---

## AVERAGE

```
public final static StatisticalMeasure AVERAGE()
```

---

## SAMPLE\_SIZE

```
public final static StatisticalMeasure SAMPLE_SIZE()
```

---

## VARIANCE

```
public final static StatisticalMeasure VARIANCE()
```

---

## TYPICAL\_LOWER\_BOUNDARY

```
public final static StatisticalMeasure TYPICAL_LOWER_BOUNDARY()
```

---

## TYPICAL\_UPPER\_BOUNDARY

```
public final static StatisticalMeasure TYPICAL_UPPER_BOUNDARY()
```

---

# eu.etaxonomy.cdm.model.description Class StatisticalMeasurementValue

```
java.lang.Object
+-eu.etaxonomy.cdm.model.common.CdmBase
  +-eu.etaxonomy.cdm.model.common.VersionableEntity
    +-eu.etaxonomy.cdm.model.description.StatisticalMeasurementValue
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **StatisticalMeasurementValue**

extends [VersionableEntity](#)

## Constructor Summary

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

## Method Summary

|                                    |   |
|------------------------------------|---|
| void                               | <a href="#">addModifier(Modifier modifier)</a>        |
| java.util.Set                      | <a href="#">getModifiers()</a>                        |
| <a href="#">StatisticalMeasure</a> | <a href="#">getType()</a>                             |
| float                              | <a href="#">getValue()</a>                            |
| void                               | <a href="#">removeModifier(Modifier modifier)</a>     |
| void                               | <a href="#">setModifiers(java.util.Set modifiers)</a> |
| void                               | <a href="#">setType(StatisticalMeasure type)</a>      |
| void                               | <a href="#">setValue(float value)</a>                 |

## Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

## Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Constructors

### StatisticalMeasurementValue

```
public StatisticalMeasurementValue()
```

## Methods

### getType

```
public StatisticalMeasure getType()
```

### setType

```
public void setType(StatisticalMeasure type)
```

### getValue

```
public float getValue()
```

### setValue

```
public void setValue(float value)
```

### getModifiers

```
public java.util.Set getModifiers()
```

### setModifiers

```
protected void setModifiers(java.util.Set modifiers)
```

### addModifier

```
public void addModifier(Modifier modifier)
```

(continued from last page)

---

## **removeModifier**

public void **removeModifier**(Modifier modifier)

## eu.etaxonomy.cdm.model.description Class TaxonDescription

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.description.DescriptionBase
            +-eu.etaxonomy.cdm.model.description.TaxonDescription
```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#)

public class **TaxonDescription**  
extends [DescriptionBase](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                       |   |
|-----------------------|---|
| void                  | <a href="#">addGeoScope(NamedArea geoScope)</a>       |
| void                  | <a href="#">addScope(Scope scope)</a>                 |
| java.util.Set         | <a href="#">getGeoScopes()</a>                        |
| java.util.Set         | <a href="#">getScopes()</a>                           |
| <a href="#">Taxon</a> | <a href="#">getTaxon()</a>                            |
| void                  | <a href="#">removeGeoScope(NamedArea geoScope)</a>    |
| void                  | <a href="#">removeScope(Scope scope)</a>              |
| void                  | <a href="#">setGeoScopes(java.util.Set geoScopes)</a> |
| void                  | <a href="#">setScopes(java.util.Set scopes)</a>       |

|      |                                       |
|------|---------------------------------------|
| void | <a href="#">setTaxon(Taxon taxon)</a> |
|------|---------------------------------------|

**Methods inherited from class** [eu.etaxonomy.cdm.model.description.DescriptionBase](#)

[addFeature](#), [generateTitle](#), [getFeatures](#), [getSource](#), [removeFeature](#), [setFeatures](#), [setSource](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

## Constructors

### TaxonDescription

public [TaxonDescription\(\)](#)

## Methods

### getGeoScopes

public java.util.Set [getGeoScopes\(\)](#)

(continued from last page)

---

## setGeoScopes

```
protected void setGeoScopes(java.util.Set geoScopes)
```

---

## addGeoScope

```
public void addGeoScope(NamedArea geoScope)
```

---

## removeGeoScope

```
public void removeGeoScope(NamedArea geoScope)
```

---

## getScopes

```
public java.util.Set getScopes()
```

---

## setScopes

```
protected void setScopes(java.util.Set scopes)
```

---

## addScope

```
public void addScope(Scope scope)
```

---

## removeScope

```
public void removeScope(Scope scope)
```

---

## getTaxon

```
public Taxon getTaxon()
```

---

## setTaxon

```
public void setTaxon(Taxon taxon)
```

---

## eu.etaxonomy.cdm.model.description Class TaxonInteraction

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase
            +-eu.etaxonomy.cdm.model.description.TaxonInteraction
```

### All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **TaxonInteraction**

extends [FeatureBase](#)

FIXME

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                                  |  |
|----------------------------------|--|
| void                             | <a href="#">addDescription(LanguageString description)</a>           |
| void                             | <a href="#">addDescription(java.lang.String text, Language lang)</a> |
| <a href="#">MultilanguageSet</a> | <a href="#">getDescription()</a>                                     |
| <a href="#">Taxon</a>            | <a href="#">getTaxon2()</a>  |
| void                             | <a href="#">removeDescription(Language lang)</a>                     |
| void                             | <a href="#">setTaxon2(Taxon taxon2)</a>                              |

#### Methods inherited from class [eu.etaxonomy.cdm.model.description.FeatureBase](#)

[addMedia](#), [addModifier](#), [addModifyingText](#), [addModifyingText](#), [getMedia](#), [getModifiers](#), [getModifyingText](#), [getType](#), [removeMedia](#), [removeModifier](#), [removeModifyingText](#), [setMedia](#), [setModifiers](#), [setModifyingText](#), [setType](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

---

```
getCitation, getCitationMicroReference, getOriginalNameString, setCitation,  
setCitationMicroReference, setOriginalNameString
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

```
addAnnotations, addMarker, getAnnotations, getMarkers, removeAnnotations,  
removeMarker, setAnnotations, setMarkers
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  
getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

```
getCitation
```

## Constructors

### TaxonInteraction

```
public TaxonInteraction()
```

## Methods

### getTaxon2

```
public Taxon getTaxon2()
```

### setTaxon2

```
public void setTaxon2(Taxon taxon2)
```

(continued from last page)

## getDescription

```
public MultilanguageSet getDescription()
```

---

## addDescription

```
public void addDescription(LanguageString description)
```

---

## addDescription

```
public void addDescription(java.lang.String text,  
Language lang)
```

---

## removeDescription

```
public void removeDescription(Language lang)
```

# eu.etaxonomy.cdm.model.description

## Class TextData

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.description.FeatureBase
            +-eu.etaxonomy.cdm.model.description.TextData

```

### All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **TextData**  
extends [FeatureBase](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                                  |   |
|----------------------------------|---|
| void                             | <a href="#">addText(<a href="#">LanguageString</a> text)</a>                  |
| void                             | <a href="#">addText(java.lang.String text, <a href="#">Language</a> lang)</a> |
| <a href="#">TextFormat</a>       | <a href="#">getFormat()</a>   |
| <a href="#">MultilanguageSet</a> | <a href="#">getTexts()</a>  |
| void                             | <a href="#">removeText(<a href="#">Language</a> lang)</a>                     |
| void                             | <a href="#">setFormat(<a href="#">TextFormat</a> format)</a>                  |

Methods inherited from class [eu.etaxonomy.cdm.model.description.FeatureBase](#)

[addMedia](#), [addModifier](#), [addModifyingText](#), [addModifyingText](#), [getMedia](#), [getModifiers](#), [getModifyingText](#), [getType](#), [removeMedia](#), [removeModifier](#), [removeModifyingText](#), [setMedia](#), [setModifiers](#), [setModifyingText](#), [setType](#)

Methods inherited from class [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

---

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### TextData

public [TextData\(\)](#)

## Methods

### getTexts

public [MultilanguageSet](#) [getTexts\(\)](#)

---

### addText

public void [addText](#)(java.lang.String text,  
[Language](#) lang)

(continued from last page)

## **addText**

```
public void addText(LanguageString text)
```

---

## **removeText**

```
public void removeText(Language lang)
```

---

## **getFormat**

```
public TextFormat getFormat()
```

---

## **setFormat**

```
public void setFormat(TextFormat format)
```

# eu.etaxonomy.cdm.model.description Class TextFormat

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.description.TextFormat
```

## All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class TextFormat**

**extends** [DefinedTermBase](#)

kind of format used for structuring text. E.g. xml schema namespace, rdf, or any other format

### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |   |
|--------|---|
| public | <a href="#">TextFormat(java.lang.String term, java.lang.String label)</a> |
|--------|---|

### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IDefTerm

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Constructors

### TextFormat

```
public TextFormat()
```

---

### TextFormat

```
public TextFormat(java.lang.String term,  
                 java.lang.String label)
```

---

## Package

# eu.etaxonomy.cdm.model.location

## Package: "location"

Provides classes for georeferencing gathering or observation events.

## Related Documentation

- [TDWG Geographic Region Ontology](#)
- [Open Geospatial Consortium](#)
- [BioGeomancer Project](#)
- [ISO Standards](#)

## UML Diagrams

### Location

# eu.etaxonomy.cdm.model.location

## Class Continent

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.location.Continent

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class Continent**  
extends [DefinedTermBase](#)

**Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase**

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">Continent()</a>  |
| public | <a href="#">Continent(java.lang.String term, java.lang.String label)</a> |

### Method Summary

|                                  |  |
|----------------------------------|--|
| static <a href="#">Continent</a> | <a href="#">AFRICA()</a>                     |
| static <a href="#">Continent</a> | <a href="#">ANTARCTICA()</a>                 |
| static <a href="#">Continent</a> | <a href="#">ASIA()</a>                       |
| static <a href="#">Continent</a> | <a href="#">EUROPE()</a>                     |
| static <a href="#">Continent</a> | <a href="#">getUUID(java.util.UUID uuid)</a> |
| static <a href="#">Continent</a> | <a href="#">NORTH_AMERICA()</a>              |
| static <a href="#">Continent</a> | <a href="#">OCEANIA()</a>                    |
| static <a href="#">Continent</a> | <a href="#">SOUTH_AMERICA()</a>              |

**Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase**

```
addIncludes, addMedia, findByUuid, getGeneralizationOf, getIncludes, getKindOf,  

getMedia, getPartOf, getPersistentVocabulary, getVocabulary, readCsvLine,  

readCsvLine, removeIncludes, removeMedia, setGeneralizationOf, setIncludes,  

setKindOf, setMedia, setPartOf, setPersistentVocabulary, setVocabulary,  

setVocabularyStore, writeCsvLine
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.TermBase](#)

```
addRepresentation, equals, getDescription, getDescription, getLabel, getLabel,  

getRepresentation, getRepresentations, getUri, removeRepresentation,  

setRepresentations, setUri, toString
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

wait
```

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Constructors

### Continent

```
public Continent()
```

### Continent

```
public Continent(java.lang.String term,  

                java.lang.String label)
```

## Methods

### getUUID

```
public final static Continent getUUID(java.util.UUID uuid)
```

(continued from last page)

---

## **EUROPE**

```
public final static Continent EUROPE()
```

---

## **AFRICA**

```
public final static Continent AFRICA()
```

---

## **ASIA**

```
public final static Continent ASIA()
```

---

## **NORTH\_AMERICA**

```
public final static Continent NORTH_AMERICA()
```

---

## **ANTARCTICA**

```
public final static Continent ANTARCTICA()
```

---

## **SOUTH\_AMERICA**

```
public final static Continent SOUTH_AMERICA()
```

---

## **OCEANIA**

```
public final static Continent OCEANIA()
```

## eu.etaxonomy.cdm.model.location Class NamedArea

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.location.NamedArea

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **NamedArea**  
extends [OrderedTermBase](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[orderIndex](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">NamedArea(java.lang.String term, java.lang.String label)</a> |
|--------|--|

### Method Summary

|      |  |
|------|--|
| void | <a href="#">addWaterbodyOrCountry(WaterbodyOrCountry waterbodyOrCountry)</a> |
|------|--|

|                                |                            |
|--------------------------------|----------------------------|
| <a href="#">NamedAreaLevel</a> | <a href="#">getLevel()</a> |
|--------------------------------|----------------------------|

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

|                       |                            |
|-----------------------|----------------------------|
| <a href="#">Media</a> | <a href="#">getShape()</a> |
|-----------------------|----------------------------|

|                               |                           |
|-------------------------------|---------------------------|
| <a href="#">NamedAreaType</a> | <a href="#">getType()</a> |
|-------------------------------|---------------------------|

|                            |                                  |
|----------------------------|----------------------------------|
| <a href="#">TimePeriod</a> | <a href="#">getValidPeriod()</a> |
|----------------------------|----------------------------------|

|                               |   |
|-------------------------------|---|
| <a href="#">java.util.Set</a> | <a href="#">getWaterbodiesOrCountries()</a> |
|-------------------------------|---|

|      |   |
|------|---|
| void | <a href="#">removeWaterbodyOrCountry(WaterbodyOrCountry waterbodyOrCountry)</a> |
| void | <a href="#">setLevel(NamedAreaLevel level)</a>                                  |
| void | <a href="#">setPointApproximation(Point pointApproximation)</a>                 |
| void | <a href="#">setShape(Media shape)</a>   |
| void | <a href="#">setType(NamedAreaType type)</a>                                     |
| void | <a href="#">setValidPeriod(TimePeriod validPeriod)</a>                          |
| void | <a href="#">setWaterbodiesOrCountries(java.util.Set waterbodiesOrCountries)</a> |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** java.lang.Comparable`compareTo`

## Constructors

### NamedArea

`public NamedArea()`

### NamedArea

`public NamedArea(java.lang.String term,  
 java.lang.String label)`

## Methods

### getType

`public NamedAreaType getType()`

### setType

`public void setType(NamedAreaType type)`

### getLevel

`public NamedAreaLevel getLevel()`

### setLevel

`public void setLevel(NamedAreaLevel level)`

### getValidPeriod

`public TimePeriod getValidPeriod()`

### setValidPeriod

`public void setValidPeriod(TimePeriod validPeriod)`

**getShape**

```
public Media getShape()
```

---

**setShape**

```
public void setShape(Media shape)
```

---

**getWaterbodiesOrCountries**

```
public java.util.Set getWaterbodiesOrCountries()
```

---

**setWaterbodiesOrCountries**

```
protected void setWaterbodiesOrCountries(java.util.Set waterbodiesOrCountries)
```

---

**addWaterbodyOrCountry**

```
public void addWaterbodyOrCountry(WaterbodyOrCountry waterbodyOrCountry)
```

---

**removeWaterbodyOrCountry**

```
public void removeWaterbodyOrCountry(WaterbodyOrCountry waterbodyOrCountry)
```

---

**getPointApproximation**

```
public Point getPointApproximation()
```

---

**setPointApproximation**

```
public void setPointApproximation(Point pointApproximation)
```

---

## eu.etaxonomy.cdm.model.location Class NamedAreaLevel

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.location.NamedAreaLevel

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **NamedAreaLevel**

extends [OrderedTermBase](#)

Controlled vocabulary to differentiate levels of areas such as province, state, etc.

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[orderIndex](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |   |
|--------|---|
| public | <a href="#">NamedAreaLevel(java.lang.String term, java.lang.String label)</a> |
|--------|---|

### Method Summary

|                                       |                                  |
|---------------------------------------|----------------------------------|
| static <a href="#">NamedAreaLevel</a> | <a href="#">NATURE_RESERVE()</a> |
|---------------------------------------|----------------------------------|

|                                       |                            |
|---------------------------------------|----------------------------|
| static <a href="#">NamedAreaLevel</a> | <a href="#">PROVINCE()</a> |
|---------------------------------------|----------------------------|

|                                       |                         |
|---------------------------------------|-------------------------|
| static <a href="#">NamedAreaLevel</a> | <a href="#">STATE()</a> |
|---------------------------------------|-------------------------|

|                                       |   |
|---------------------------------------|---|
| static <a href="#">NamedAreaLevel</a> | <a href="#">TDWG_LEVEL1()</a><br>continents |
|---------------------------------------|---|

|                                       |   |
|---------------------------------------|---|
| static <a href="#">NamedAreaLevel</a> | <a href="#">TDWG_LEVEL2()</a><br>larger regions |
|---------------------------------------|---|

|                                       |   |
|---------------------------------------|---|
| static <a href="#">NamedAreaLevel</a> | <a href="#">TDWG_LEVEL3()</a><br>mostly countries |
|---------------------------------------|---|

|                                       |                               |
|---------------------------------------|-------------------------------|
| static <a href="#">NamedAreaLevel</a> | <a href="#">TDWG_LEVEL4()</a> |
|---------------------------------------|-------------------------------|

|                                       |                        |
|---------------------------------------|------------------------|
| static <a href="#">NamedAreaLevel</a> | <a href="#">TOWN()</a> |
|---------------------------------------|------------------------|

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

#### Methods inherited from interface [java.lang.Comparable](#)

[compareTo](#)

## Constructors

### NamedAreaLevel

public [NamedAreaLevel\(\)](#)

(continued from last page)

---

## NamedAreaLevel

```
public NamedAreaLevel(java.lang.String term,  
                      java.lang.String label)
```

---

## Methods

### TDWG\_LEVEL1

```
public final static NamedAreaLevel TDWG_LEVEL1()
```

continents

---

### TDWG\_LEVEL2

```
public final static NamedAreaLevel TDWG_LEVEL2()
```

larger regions

---

### TDWG\_LEVEL3

```
public final static NamedAreaLevel TDWG_LEVEL3()
```

mostly countries

---

### TDWG\_LEVEL4

```
public final static NamedAreaLevel TDWG_LEVEL4()
```

---

### NATURE\_RESERVE

```
public final static NamedAreaLevel NATURE_RESERVE()
```

---

### STATE

```
public final static NamedAreaLevel STATE()
```

---

### PROVINCE

```
public final static NamedAreaLevel PROVINCE()
```

---

### TOWN

```
public final static NamedAreaLevel TOWN()
```

## eu.etaxonomy.cdm.model.location Class NamedAreaType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.location.NamedAreaType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

public class **NamedAreaType**

extends [DefinedTermBase](#)

Controlled vocabulary to differentiate categories of areas

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">NamedAreaType</a> (java.lang.String term, java.lang.String label) |
|--------|---|

### Method Summary

|                                      |   |
|--------------------------------------|---|
| static <a href="#">NamedAreaType</a> | <a href="#">ADMINISTRATION_AREA()</a><br>The boundaries depend on administration (county, state, reserve, etc.) |
|--------------------------------------|---|

|                                      |   |
|--------------------------------------|---|
| static <a href="#">NamedAreaType</a> | <a href="#">NATURAL_AREA()</a><br>The boundaries are given by natural factors (mountains, valleys, climate, etc.) |
|--------------------------------------|---|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

wait
```

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Constructors

### NamedAreaType

```
public NamedAreaType(java.lang.String term,  

                    java.lang.String label)
```

## Methods

### NATURAL\_AREA

```
public final static NamedAreaType NATURAL_AREA()
```

The boundaries are given by natural factors (mountains, valleys, climate, etc.)

### ADMINISTRATION\_AREA

```
public final static NamedAreaType ADMINISTRATION_AREA()
```

The boundaries depend on administration (county, state, reserve, etc.)

## eu.etaxonomy.cdm.model.location Class Point

```
java.lang.Object
+-eu.etaxonomy.cdm.model.location.Point
```

---

```
public class Point
extends java.lang.Object
```

### Constructor Summary

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

### Method Summary

|                                 |   |
|---------------------------------|---|
| java.lang.Integer               | <a href="#">getErrorRadius()</a>  |
| java.lang.Float                 | <a href="#">getLatitude()</a>   |
| java.lang.Float                 | <a href="#">getLongitude()</a>  |
| <a href="#">ReferenceSystem</a> | <a href="#">getReferenceSystem()</a>  |
| void                            | <a href="#">setErrorRadius(java.lang.Integer errorRadius)</a>                       |
| void                            | <a href="#">setLatitude(java.lang.Float latitude)</a>                               |
| void                            | <a href="#">setLongitude(java.lang.Float longitude)</a>                             |
| void                            | <a href="#">setReferenceSystem(<a href="#">ReferenceSystem</a> referenceSystem)</a> |

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

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

### Constructors

#### Point

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

### Methods

(continued from last page)

## getReferenceSystem

```
public ReferenceSystem getReferenceSystem()
```

---

## setReferenceSystem

```
public void setReferenceSystem(ReferenceSystem referenceSystem)
```

### Parameters:

referenceSystem - referenceSystem

---

## getLongitude

```
public java.lang.Float getLongitude()
```

---

## setLongitude

```
public void setLongitude(java.lang.Float longitude)
```

### Parameters:

longitude - longitude

---

## getLatitude

```
public java.lang.Float getLatitude()
```

---

## setLatitude

```
public void setLatitude(java.lang.Float latitude)
```

### Parameters:

latitude - latitude

---

## getErrorRadius

```
public java.lang.Integer getErrorRadius()
```

---

## setErrorRadius

```
public void setErrorRadius(java.lang.Integer errorRadius)
```

---

(continued from last page)

**Parameters:**

errorRadius - errorRadius

# eu.etaxonomy.cdm.model.location Class ReferenceSystem

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.location.ReferenceSystem

```

## All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class ReferenceSystem**

**extends** [DefinedTermBase](#)

Reference systems for coordinates also according to OGC (Open Geographical Consortium) The list should be extensible at runtime through configuration. This needs to be investigated.

### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">ReferenceSystem</a> (java.lang.String term, java.lang.String label) |
|--------|---|

## Method Summary

|   |                         |
|---|-------------------------|
| static<br><a href="#">ReferenceSystem</a> | <a href="#">WGS84()</a> |
|---|-------------------------|

### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### ReferenceSystem

```
public ReferenceSystem(java.lang.String term,  
                      java.lang.String label)
```

## Methods

### WGS84

```
public final static ReferenceSystem WGS84()
```

# eu.etaxonomy.cdm.model.location Class WaterbodyOrCountry

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.location.WaterbodyOrCountry

```

## All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

public class **WaterbodyOrCountry**

extends [DefinedTermBase](#)

+/- current ISO codes. year given with each entry [http://userpage.chemie.fu-berlin.de/diverse/doc/ISO\\_3166.html](http://userpage.chemie.fu-berlin.de/diverse/doc/ISO_3166.html)  
<http://www.davros.org/misc/iso3166.txt>

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|--|

|  |
|--|
| <a href="#">vocabulary</a> , <a href="#">vocabularyStore</a> |
|--|

## Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">WaterbodyOrCountry()</a>  |
| public | <a href="#">WaterbodyOrCountry(java.lang.String term, java.lang.String label)</a> |

## Method Summary

|                            |   |
|----------------------------|---|
| void                       | <a href="#">addContinents(Continent continent)</a>      |
| java.util.Set              | <a href="#">getContinents()</a>                         |
| java.lang.String           | <a href="#">getIso2code()</a>                           |
| <a href="#">TimePeriod</a> | <a href="#">getValidPeriod()</a>                        |
| void                       | <a href="#">readCsvLine(java.util.List csvLine)</a>     |
| void                       | <a href="#">removeContinents(Continent continent)</a>   |
| void                       | <a href="#">setContinents(java.util.Set continents)</a> |
| void                       | <a href="#">setIso2code(java.lang.String iso2code)</a>  |

|      |   |
|------|---|
| void | <a href="#">setValidPeriod</a> (TimePeriod validPeriod) |
| void | <a href="#">writeCsvLine</a> (CSVWriter writer)         |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### WaterbodyOrCountry

```
public WaterbodyOrCountry()
```

### WaterbodyOrCountry

```
public WaterbodyOrCountry(java.lang.String term,
                           java.lang.String label)
```

(continued from last page)

## Methods

### getContinents

```
public java.util.Set getContinents()
```

---

### setContinents

```
protected void setContinents(java.util.Set continents)
```

---

### addContinents

```
public void addContinents(Continent continent)
```

---

### removeContinents

```
public void removeContinents(Continent continent)
```

---

### getIso2code

```
public java.lang.String getIso2code()
```

---

### setIso2code

```
public void setIso2code(java.lang.String iso2code)
```

**Parameters:**

iso2code - iso2code

---

### getValidPeriod

```
public TimePeriod getValidPeriod()
```

---

### setValidPeriod

```
public void setValidPeriod(TimePeriod validPeriod)
```

**Parameters:**

validPeriod - validPeriod

(continued from last page)

## **readCsvLine**

```
public void readCsvLine(java.util.List csvLine)
```

---

## **writeCsvLine**

```
public void writeCsvLine(CSVWriter writer)
```

---

## Package

# eu.etaxonomy.cdm.model.molecular

## Package: "molecular"

Provides classes for DNA samples and related sequences.

## Related Documentation

- [International Nucleotide Sequence Database Collaboration](#)

## UML Diagrams

## Molecular

## eu.etaxonomy.cdm.model.molecular Class DnaSample

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.ocurrence.SpecimenOrObservationBase
              +-eu.etaxonomy.cdm.model.ocurrence.DerivedUnit
                +-eu.etaxonomy.cdm.model.ocurrence.Specimen
                  +-eu.etaxonomy.cdm.model.molecular.DnaSample

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

---

public class **DnaSample**

extends [Specimen](#)

---

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

### Constructor Summary

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

### Method Summary

|                            |  |
|----------------------------|--|
| void                       | <a href="#">addSequences(Sequence sequence)</a>            |
| java.lang.String           | <a href="#">getBankNumber()</a>                            |
| java.util.Set              | <a href="#">getExtractedFrom()</a>                         |
| java.util.Set              | <a href="#">getSequences()</a>                             |
| <a href="#">Collection</a> | <a href="#">getStoredAt()</a>                              |
| void                       | <a href="#">removeSequences(Sequence sequence)</a>         |
| void                       | <a href="#">setBankNumber(java.lang.String bankNumber)</a> |

|      |  |
|------|--|
| void | <a href="#">setSequences</a> (java.util.Set sequences) |
|------|--|

|      |   |
|------|---|
| void | <a href="#">setStoredAt</a> (Collection storedAt) |
|------|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.occurrence.Specimen](#)

|   |
|---|
| <a href="#">getPreservation</a> , <a href="#">setPreservation</a> |
|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.occurrence.DerivedUnit](#)

|   |
|---|
| <a href="#">getCatalogNumber</a> , <a href="#">getCollection</a> , <a href="#">getDerivedFrom</a> , <a href="#">getGatheringEvent</a> , <a href="#">getOriginals</a> ,<br><a href="#">getStoredUnder</a> , <a href="#">setCatalogNumber</a> , <a href="#">setCollection</a> , <a href="#">setDerivedFrom</a> , <a href="#">setStoredUnder</a> |
|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase](#)

|  |
|--|
| <a href="#">addDefinition</a> , <a href="#">addDefinition</a> , <a href="#">addDerivationEvent</a> , <a href="#">addDetermination</a> , <a href="#">generateTitle</a> ,<br><a href="#">getDefinition</a> , <a href="#">getDerivationEvents</a> , <a href="#">getDeterminations</a> , <a href="#">getGatheringEvent</a> ,<br><a href="#">getIndividualCount</a> , <a href="#">getLifeStage</a> , <a href="#">getOriginalUnit</a> , <a href="#">getSex</a> , <a href="#">removeDefinition</a> ,<br><a href="#">removeDerivationEvent</a> , <a href="#">removeDetermination</a> , <a href="#">setDerivationEvents</a> , <a href="#">setDeterminations</a> ,<br><a href="#">setIndividualCount</a> , <a href="#">setLifeStage</a> , <a href="#">setSex</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

|  |
|--|
| <a href="#">addMedia</a> , <a href="#">getMedia</a> , <a href="#">removeMedia</a> , <a href="#">setMedia</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

|  |
|--|
| <a href="#">addExtension</a> , <a href="#">addRights</a> , <a href="#">addSource</a> , <a href="#">generateTitle</a> , <a href="#">getExtensions</a> , <a href="#">getLsid</a> , <a href="#">getRights</a> ,<br><a href="#">getSources</a> , <a href="#">getTitleCache</a> , <a href="#">isProtectedTitleCache</a> , <a href="#">removeExtension</a> , <a href="#">removeRights</a> ,<br><a href="#">removeSource</a> , <a href="#">setExtensions</a> , <a href="#">setLsid</a> , <a href="#">setProtectedTitleCache</a> , <a href="#">setRights</a> , <a href="#">setSources</a> ,<br><a href="#">setTitleCache</a> , <a href="#">setTitleCache</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

|  |
|--|
| <a href="#">addAnnotations</a> , <a href="#">addMarker</a> , <a href="#">getAnnotations</a> , <a href="#">getMarkers</a> , <a href="#">removeAnnotations</a> ,<br><a href="#">removeMarker</a> , <a href="#">setAnnotations</a> , <a href="#">setMarkers</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

|  |
|--|
| <a href="#">getNextVersion</a> , <a href="#">getPreviousVersion</a> , <a href="#">getUpdated</a> , <a href="#">getUpdatedBy</a> , <a href="#">getValidFrom</a> ,<br><a href="#">getValidTo</a> , <a href="#">setNextVersion</a> , <a href="#">setPreviousVersion</a> , <a href="#">setUpdated</a> , <a href="#">setUpdatedBy</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

|  |
|--|
| <a href="#">addPropertyChangeListener</a> , <a href="#">addPropertyChangeListener</a> , <a href="#">equals</a> , <a href="#">firePropertyChange</a> ,<br><a href="#">firePropertyChange</a> , <a href="#">firePropertyChange</a> , <a href="#">firePropertyChange</a> , <a href="#">firePropertyChange</a> ,<br><a href="#">firePropertyChange</a> , <a href="#">getCreated</a> , <a href="#">getCreatedBy</a> , <a href="#">getId</a> , <a href="#">getUuid</a> , <a href="#">hasListeners</a> ,<br><a href="#">removePropertyChangeListener</a> , <a href="#">removePropertyChangeListener</a> , <a href="#">setCreated</a> , <a href="#">setCreatedBy</a> ,<br><a href="#">setId</a> , <a href="#">setUuid</a> , <a href="#">toString</a> |
|--|

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

|   |
|---|
| <a href="#">clone</a> , <a href="#">equals</a> , <a href="#">finalize</a> , <a href="#">getClass</a> , <a href="#">hashCode</a> , <a href="#">notify</a> , <a href="#">notifyAll</a> , <a href="#">toString</a> , <a href="#">wait</a> , <a href="#">wait</a> |
|---|

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

---

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

---

## Constructors

### DnaSample

public **DnaSample()**

---

## Methods

### getSequences

public java.util.Set **getSequences()**

---

### setSequences

protected void **setSequences**(java.util.Set sequences)

---

### addSequences

public void **addSequences**([Sequence](#) sequence)

---

### removeSequences

public void **removeSequences**([Sequence](#) sequence)

---

### getStoredAt

public [Collection](#) **getStoredAt()**

---

### setStoredAt

public void **setStoredAt**([Collection](#) storedAt)

(continued from last page)

## **getExtractedFrom**

```
public java.util.Set getExtractedFrom()
```

---

## **getBankNumber**

```
public java.lang.String getBankNumber()
```

---

## **setBankNumber**

```
public void setBankNumber(java.lang.String bankNumber)
```

## eu.etaxonomy.cdm.model.molecular Class GenBankAccession

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.molecular.GenBankAccession
```

**All Implemented Interfaces:**  
java.io.Serializable

public class **GenBankAccession**  
extends [VersionableEntity](#)

### Constructor Summary

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

### Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getAccessionNumber()</a>                                 |
| java.lang.String | <a href="#">getUri()</a>   |
| void             | <a href="#">setAccessionNumber(java.lang.String accessionNumber)</a> |
| void             | <a href="#">setUri(java.lang.String uri)</a>                         |

### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

### Constructors

(continued from last page)

## GenBankAccession

```
public GenBankAccession()
```

### Methods

#### getAccessionNumber

```
public java.lang.String getAccessionNumber()
```

---

#### setAccessionNumber

```
public void setAccessionNumber(java.lang.String accessionNumber)
```

##### Parameters:

accessionNumber - accessionNumber

---

#### getUri

```
public java.lang.String getUri()
```

---

#### setUri

```
public void setUri(java.lang.String uri)
```

##### Parameters:

uri - uri

## eu.etaxonomy.cdm.model.molecular Class Locus

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.molecular.Locus
```

**All Implemented Interfaces:**  
java.io.Serializable

**public class Locus**  
extends [VersionableEntity](#)

The region name of a DNA string. E.g. 18S, COX, etc.

### Constructor Summary

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

### Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getDescription()</a>                             |
| java.lang.String | <a href="#">getName()</a>                                    |
| void             | <a href="#">setDescription(java.lang.String description)</a> |
| void             | <a href="#">setName(java.lang.String name)</a>               |

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

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## Constructors

### Locus

```
public Locus()
```

## Methods

### getName

```
public java.lang.String getName()
```

---

### setName

```
public void setName(java.lang.String name)
```

#### Parameters:

name - name

---

### getDescription

```
public java.lang.String getDescription()
```

---

### setDescription

```
public void setDescription(java.lang.String description)
```

#### Parameters:

description - description

## eu.etaxonomy.cdm.model.molecular Class PhylogeneticTree

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.Media
          +-eu.etaxonomy.cdm.model.common.ReferencedMedia
            +-eu.etaxonomy.cdm.model.molecular.PhylogeneticTree
```

### All Implemented Interfaces:

java.io.Serializable, [IReferencedEntity](#)

public class **PhylogeneticTree**  
extends [ReferencedMedia](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|               |   |
|---------------|---|
| void          | <a href="#">addUsedSequences(Sequence usedSequence)</a>       |
| java.util.Set | <a href="#">getUsedSequences()</a>                            |
| void          | <a href="#">removeUsedSequences(Sequence usedSequence)</a>    |
| void          | <a href="#">setUsedSequences(java.util.Set usedSequences)</a> |

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.ReferencedMedia](#)

[getCitation](#), [getCitationMicroReference](#), [setCitation](#), [setCitationMicroReference](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.Media](#)

[addDescription](#), [addDescription](#), [addInstance](#), [addRights](#), [getArtist](#), [getDescription](#), [getInstances](#), [getMediaCreated](#), [getRights](#), [getTitle](#), [removeDescription](#), [removeInstance](#), [removeRights](#), [setArtist](#), [setDescription](#), [setInstances](#), [setMediaCreated](#), [setRights](#), [setTitle](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

---

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### PhylogeneticTree

public **PhylogeneticTree()**

## Methods

### getUsedSequences

public java.util.Set **getUsedSequences()**

---

### setUsedSequences

protected void **setUsedSequences**(java.util.Set usedSequences)

---

### addUsedSequences

public void **addUsedSequences**([Sequence](#) usedSequence)

(continued from last page)

## removeUsedSequences

public void **removeUsedSequences**([Sequence](#) usedSequence)

## eu.etaxonomy.cdm.model.molecular Class Sequence

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.molecular.Sequence

```

### All Implemented Interfaces:

[IMediaDocumented](#), [IReferencedEntity](#), [java.io.Serializable](#), [IOriginalSource](#)

```

public class Sequence
extends IdentifiableEntity
implements IOriginalSource, java.io.Serializable, IReferencedEntity, IMediaDocumented

```

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

### Constructor Summary

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

### Method Summary

|                    |  |
|--------------------|--|
| void               | <a href="#">addChromatogram(Media chromatogram)</a>                    |
| void               | <a href="#">addCitation(ReferenceBase citation)</a>                    |
| void               | <a href="#">addGenBankAccession(GenBankAccession genBankAccession)</a> |
| java.lang.String   | <a href="#">generateTitle()</a>  |
| java.util.Set      | <a href="#">getChromatograms()</a>                                     |
| ReferenceBase      | <a href="#">getCitation()</a>  |
| java.lang.String   | <a href="#">getCitationMicroReference()</a>                            |
| java.util.Set      | <a href="#">getCitations()</a>   |
| java.util.Calendar | <a href="#">getDateSequenced()</a>                                     |

|                               |  |
|-------------------------------|--|
| java.util.Set                 | <a href="#">getGenBankAccession()</a>  |
| java.lang.Integer             | <a href="#">getLength()</a>  |
| <a href="#">Locus</a>         | <a href="#">getLocus()</a>   |
| java.util.Set                 | <a href="#">getMedia()</a>   |
| <a href="#">ReferenceBase</a> | <a href="#">getPublishedIn()</a>   |
| java.lang.String              | <a href="#">getSequence()</a>  |
| boolean                       | <a href="#">isBarcode()</a>  |
| void                          | <a href="#">removeChromatogram(<u>Media</u> chromatogram)</a>                      |
| void                          | <a href="#">removeCitation(<u>ReferenceBase</u> citation)</a>                      |
| void                          | <a href="#">removeGenBankAccession(<u>GenBankAccession</u> genBankAccession)</a>   |
| void                          | <a href="#">setBarcode(boolean isBarcode)</a>                                      |
| void                          | <a href="#">setChromatograms(java.util.Set chromatograms)</a>                      |
| void                          | <a href="#">setCitationMicroReference(java.lang.String citationMicroReference)</a> |
| void                          | <a href="#">setCitations(java.util.Set citations)</a>                              |
| void                          | <a href="#"> setDateSequenced(java.util.Calendar dateSequenced)</a>                |
| void                          | <a href="#">setGenBankAccession(java.util.Set genBankAccession)</a>                |
| void                          | <a href="#">setLength(java.lang.Integer length)</a>                                |
| void                          | <a href="#">setLocus(<u>Locus</u> locus)</a>                                       |
| void                          | <a href="#">setPublishedIn(<u>ReferenceBase</u> publishedIn)</a>                   |
| void                          | <a href="#">setSequence(java.lang.String sequence)</a>                             |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Sequence

public [Sequence\(\)](#)

## Methods

### getLocus

public [Locus](#) [getLocus\(\)](#)

### setLocus

public void [setLocus](#)([Locus](#) locus)

**getPublishedIn**

```
public ReferenceBase getPublishedIn()
```

---

**setPublishedIn**

```
public void setPublishedIn(ReferenceBase publishedIn)
```

---

**getCitations**

```
public java.util.Set getCitations()
```

---

**setCitations**

```
protected void setCitations(java.util.Set citations)
```

---

**addCitation**

```
public void addCitation(ReferenceBase citation)
```

---

**removeCitation**

```
public void removeCitation(ReferenceBase citation)
```

---

**getGenBankAccession**

```
public java.util.Set getGenBankAccession()
```

---

**setGenBankAccession**

```
protected void setGenBankAccession(java.util.Set genBankAccession)
```

---

**addGenBankAccession**

```
public void addGenBankAccession(GenBankAccession genBankAccession)
```

---

**removeGenBankAccession**

```
public void removeGenBankAccession(GenBankAccession genBankAccession)
```

---

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---

**getChromatograms**

```
public java.util.Set getChromatograms()
```

---

**setChromatograms**

```
protected void setChromatograms(java.util.Set chromatograms)
```

---

**addChromatogram**

```
public void addChromatogram(Media chromatogram)
```

---

**removeChromatogram**

```
public void removeChromatogram(Media chromatogram)
```

---

**getMedia**

```
public java.util.Set getMedia()
```

---

**getSequence**

```
public java.lang.String getSequence()
```

---

**setSequence**

```
public void setSequence(java.lang.String sequence)
```

**Parameters:**sequence - sequence

---

**getLength**

```
public java.lang.Integer getLength()
```

---

**setLength**

```
public void setLength(java.lang.Integer length)
```

---

(continued from last page)

**Parameters:**

length - length

**getDateSequenced**public java.util.Calendar **getDateSequenced()** **setDateSequenced**public void  **setDateSequenced**(java.util.Calendar dateSequenced)**Parameters:**

dateSequenced - dateSequenced

**isBarcode**public boolean **isBarcode()****setBarcode**public void **setBarcode**(boolean isBarcode)**Parameters:**

isBarcode - isBarcode

**getCitationMicroReference**public java.lang.String **getCitationMicroReference()****setCitationMicroReference**public void  **setCitationMicroReference**(java.lang.String citationMicroReference)**Parameters:**

citationMicroReference - citationMicroReference

**generateTitle**public java.lang.String **generateTitle()****getCitation**public ReferenceBase **getCitation()**

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# Package **eu.etaxonomy.cdm.model.name**

## Package: "name"

Provides classes for nomenclature and typification.

## Related Documentation

- [TDWG Taxon Name LSID Ontology](#)
- [TCS schema](#)
- [ABCD schema](#)

## UML Diagrams

Name section

Type section

Nomenclatural terms

## eu.etaxonomy.cdm.model.name Class BacterialName

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.name.TaxonNameBase
            +-eu.etaxonomy.cdm.model.name.NonViralName
              +-eu.etaxonomy.cdm.model.name.BacterialName

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IReferedEntity](#)

---

**public class BacterialName**  
extends [NonViralName](#)

Taxon name class for bacteria

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.name.TaxonNameBase</a> |
|--|

[cacheStrategy](#), [nameParser](#), [nameTypeDesignations](#), [protectedNameCache](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

[annotations](#), [markers](#)

|                            |
|----------------------------|
| <b>Constructor Summary</b> |
|----------------------------|

|        |  |
|--------|--|
| public | <a href="#">BacterialName(Rank rank)</a> |
|--------|--|

|                       |
|-----------------------|
| <b>Method Summary</b> |
|-----------------------|

|                  |                                      |
|------------------|--------------------------------------|
| java.lang.String | <a href="#">getNameApprobation()</a> |
|------------------|--------------------------------------|

|                  |   |
|------------------|---|
| java.lang.String | <a href="#">getSubGenusAuthorship()</a> |
|------------------|---|

|      |  |
|------|--|
| void | <a href="#">setNameApprobation(java.lang.String nameApprobation)</a> |
|------|--|

|      |  |
|------|--|
| void | <a href="#">setSubGenusAuthorship(java.lang.String subGenusAuthorship)</a> |
|------|--|

|  |
|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.name.NonViralName</a> |
|--|

[generateTitle](#), [getAuthorshipCache](#), [getBasionymAuthorTeam](#), [getCombinationAuthorTeam](#), [getExBasionymAuthorTeam](#), [getExCombinationAuthorTeam](#), [getGenusOrUninomial](#), [getInfraGenericEpithet](#), [getInfraSpecificEpithet](#), [getSpecificEpithet](#), [isCodeCompliant](#), [setAuthorshipCache](#), [setBasionymAuthorTeam](#), [setCombinationAuthorTeam](#), [setExBasionymAuthorTeam](#), [setExCombinationAuthorTeam](#), [setGenusOrUninomial](#), [setInfraGenericEpithet](#), [setInfraSpecificEpithet](#), [setSpecificEpithet](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[addNameRelationship](#), [addRelationshipFromName](#), [addRelationshipToName](#), [addStatus](#), [addTypeDesignation](#), [addTypeDesignation](#), [generateNameCache](#), [getAppendedPhrase](#), [getBasionym](#), [getCacheStrategy](#), [getCitation](#), [getCitationString](#), [getHasProblem](#), [getHomotypalGroup](#), [getNameCache](#), [getNameRelations](#), [getNameTypeDesignations](#), [getNomenclaturalMicroReference](#), [getNomenclaturalReference](#), [getProblems](#), [getRank](#), [getRelationsFromThisName](#), [getRelationsToThisName](#), [getSpecimenTypeDesignations](#), [getStatus](#), [getSynonyms](#), [getTaxa](#), [getYear](#), [isCodeCompliant](#), [isGenus](#), [isInfraGeneric](#), [isInfraSpecific](#), [isSpecies](#), [isSupraGeneric](#), [isSupraGeneric](#), [removeNameRelationship](#), [removeStatus](#), [removeTypeDesignation](#), [removeTypeDesignation](#), [setAppendedPhrase](#), [setBasionym](#), [setBasionym](#), [setCacheStrategy](#), [setHasProblem](#), [setHomotypalGroup](#), [setNameCache](#), [setNameTypeDesignations](#), [setNomenclaturalMicroReference](#), [setNomenclaturalReference](#), [setRank](#), [setStatus](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### BacterialName

```
public BacterialName(Rank rank)
```

## Methods

### getSubGenusAuthorship

```
public java.lang.String getSubGenusAuthorship()
```

### setSubGenusAuthorship

```
public void setSubGenusAuthorship(java.lang.String subGenusAuthorship)
```

#### Parameters:

subGenusAuthorship - subGenusAuthorship

### getNameApprobation

```
public java.lang.String getNameApprobation()
```

### setNameApprobation

```
public void setNameApprobation(java.lang.String nameApprobation)
```

#### Parameters:

nameApprobation - nameApprobation

## eu.etaxonomy.cdm.model.name Class BotanicalName

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.name.TaxonNameBase
            +-eu.etaxonomy.cdm.model.name.NonViralName
              +-eu.etaxonomy.cdm.model.name.BotanicalName

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IReferedEntity](#)

### Direct Known Subclasses:

[CultivarPlantName](#)

public class **BotanicalName**

extends [NonViralName](#)

Taxon name class for plants

#### Fields inherited from class [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[cacheStrategy](#), [nameParser](#), [nameTypeDesignations](#), [protectedNameCache](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

|           |  |
|-----------|--|
| protected | <a href="#">BotanicalName()</a>  |
| public    | <a href="#">BotanicalName(<a href="#">Rank</a> rank)</a>   |
| public    | <a href="#">BotanicalName(<a href="#">Rank</a> rank, java.lang.String genusOrUninomial, java.lang.String specificEpithet, java.lang.String infraSpecificEpithet, <a href="#">Agent</a> combinationAuthorTeam, <a href="#">INomenclaturalReference</a> nomenclaturalReference, java.lang.String nomencMicroRef)</a> |

## Method Summary

|               |  |
|---------------|--|
| void          | <a href="#">addHybridRelationship(<a href="#">HybridRelationship</a> relationship)</a> |
| java.util.Set | <a href="#">getChildRelationships()</a>  |

|                      |  |
|----------------------|--|
| java.util.Set        | <a href="#">getHybridRelationships()</a>   |
| java.util.Set        | <a href="#">getParentRelationships()</a>   |
| boolean              | <a href="#">isAnamorphic()</a>   |
| boolean              | <a href="#">isBinomHybrid()</a>  |
| boolean              | <a href="#">isHybridFormula()</a>  |
| boolean              | <a href="#">isMonomHybrid()</a>  |
| boolean              | <a href="#">isTrinomHybrid()</a>   |
| static BotanicalName | <a href="#">NewInstance(Rank rank)</a>   |
| static BotanicalName | <a href="#">PARSED_NAME(java.lang.String fullName)</a><br>Returns a parsed Name            |
| static BotanicalName | <a href="#">PARSED_NAME(java.lang.String fullName, Rank rank)</a><br>Returns a parsed Name |
| void                 | <a href="#">removeHybridRelationship(HybridRelationship relationship)</a>                  |
| void                 | <a href="#">setAnamorphic(boolean isAnamorphic)</a>  |
| void                 | <a href="#">setBinomHybrid(boolean isBinomHybrid)</a>                                      |
| void                 | <a href="#">setHybridFormula(boolean isHybridFormula)</a>                                  |
| void                 | <a href="#">setHybridRelationships(java.util.Set relationships)</a>                        |
| void                 | <a href="#">setMonomHybrid(boolean isMonomHybrid)</a>                                      |
| void                 | <a href="#">setTrinomHybrid(boolean isTrinomHybrid)</a>                                    |

**Methods inherited from class** [eu.etaxonomy.cdm.model.name.NonViralName](#)

[generateTitle](#), [getAuthorshipCache](#), [getBasionymAuthorTeam](#), [getCombinationAuthorTeam](#), [getExBasionymAuthorTeam](#), [getExCombinationAuthorTeam](#), [getGenusOrUninomial](#), [getInfraGenericEpithet](#), [getInfraSpecificEpithet](#), [getSpecificEpithet](#), [isCodeCompliant](#), [setAuthorshipCache](#), [setBasionymAuthorTeam](#), [setCombinationAuthorTeam](#), [setExBasionymAuthorTeam](#), [setExCombinationAuthorTeam](#), [setGenusOrUninomial](#), [setInfraGenericEpithet](#), [setInfraSpecificEpithet](#), [setSpecificEpithet](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[addNameRelationship](#), [addRelationshipFromName](#), [addRelationshipToName](#), [addStatus](#), [addTypeDesignation](#), [addTypeDesignation](#), [generateNameCache](#), [getAppendedPhrase](#), [getBasionym](#), [getCacheStrategy](#), [getCitation](#), [getCitationString](#), [getHasProblem](#), [getHomotypalGroup](#), [getNameCache](#), [getNameRelations](#), [getNameTypeDesignations](#), [getNomenclaturalMicroReference](#), [getNomenclaturalReference](#), [getProblems](#), [getRank](#), [getRelationsFromThisName](#), [getRelationsToThisName](#), [getSpecimenTypeDesignations](#), [getStatus](#), [getSynonyms](#), [getTaxa](#), [getYear](#), [isCodeCompliant](#), [isGenus](#), [isInfraGeneric](#), [isInfraSpecific](#), [isSpecies](#), [isSupraGeneric](#), [isSupraGeneric](#), [removeNameRelationship](#), [removeStatus](#), [removeTypeDesignation](#), [removeTypeDesignation](#), [setAppendedPhrase](#), [setBasionym](#), [setBasionym](#), [setCacheStrategy](#), [setHasProblem](#), [setHomotypalGroup](#), [setNameCache](#), [setNameTypeDesignations](#), [setNomenclaturalMicroReference](#), [setNomenclaturalReference](#), [setRank](#), [setStatus](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IOriginalSource

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IReferencedEntity

[getCitation](#)

## Constructors

(continued from last page)

## BotanicalName

```
protected BotanicalName()
```

---

## BotanicalName

```
public BotanicalName(Rank rank)
```

---

## BotanicalName

```
public BotanicalName(Rank rank,  
                     java.lang.String genusOrUninomial,  
                     java.lang.String specificEpithet,  
                     java.lang.String infraSpecificEpithet,  
                     Agent combinationAuthorTeam,  
                     INomenclaturalReference nomenclaturalReference,  
                     java.lang.String nomencMicroRef)
```

## Methods

### NewInstance

```
public static BotanicalName NewInstance(Rank rank)
```

**Parameters:**

rank

**Returns:**

---

### PARSED\_NAME

```
public static BotanicalName PARSED_NAME(java.lang.String fullName)
```

Returns a parsed Name

**Parameters:**

fullName

**Returns:**

---

### PARSED\_NAME

```
public static BotanicalName PARSED_NAME(java.lang.String fullName,  
                                         Rank rank)
```

Returns a parsed Name

**Parameters:**

fullName

(continued from last page)

**Returns:****getHybridRelationships**

```
public java.util.Set getHybridRelationships()
```

**setHybridRelationships**

```
protected void setHybridRelationships(java.util.Set relationships)
```

**addHybridRelationship**

```
public void addHybridRelationship(HybridRelationship relationship)
```

**removeHybridRelationship**

```
public void removeHybridRelationship(HybridRelationship relationship)
```

**getParentRelationships**

```
public java.util.Set getParentRelationships()
```

**getChildRelationships**

```
public java.util.Set getChildRelationships()
```

**isHybridFormula**

```
public boolean isHybridFormula()
```

**setHybridFormula**

```
public void setHybridFormula(boolean isHybridFormula)
```

**Parameters:**

isHybridFormula - isHybridFormula

**isMonomHybrid**

```
public boolean isMonomHybrid()
```

(continued from last page)

---

## setMonomHybrid

```
public void setMonomHybrid(boolean isMonomHybrid)
```

**Parameters:**

isMonomHybrid - isMonomHybrid

---

## isBinomHybrid

```
public boolean isBinomHybrid()
```

---

## setBinomHybrid

```
public void setBinomHybrid(boolean isBinomHybrid)
```

**Parameters:**

isBinomHybrid - isBinomHybrid

---

## isTrinomHybrid

```
public boolean isTrinomHybrid()
```

---

## setTrinomHybrid

```
public void setTrinomHybrid(boolean isTrinomHybrid)
```

**Parameters:**

isTrinomHybrid - isTrinomHybrid

---

## isAnamorphic

```
public boolean isAnamorphic()
```

---

## setAnamorphic

```
public void setAnamorphic(boolean isAnamorphic)
```

**Parameters:**

isAnamorphic - isAnamorphic

## eu.etaxonomy.cdm.model.name Class CultivarPlantName

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.name.TaxonNameBase
            +-eu.etaxonomy.cdm.model.name.NonViralName
              +-eu.etaxonomy.cdm.model.name.BotanicalName
                +-eu.etaxonomy.cdm.model.name.CultivarPlantName
  
```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IReferencedEntity](#)

### public class CultivarPlantName

extends [BotanicalName](#)

Taxon name class for cultivars. {only possible for CULTIVAR, GREX, CONVAR, CULTIVAR\_GROUP, GRAFT\_CHIMAERA and DENOMINATION\_CLASS ranks}

#### Fields inherited from class eu.etaxonomy.cdm.model.name.TaxonNameBase

[cacheStrategy](#), [nameParser](#), [nameTypeDesignations](#), [protectedNameCache](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">CultivarPlantName(Rank rank)</a> |
|--------|--|

### Method Summary

|                  |                                   |
|------------------|-----------------------------------|
| java.lang.String | <a href="#">getCultivarName()</a> |
|------------------|-----------------------------------|

|      |  |
|------|--|
| void | <a href="#">setCultivarName(java.lang.String cultivarName)</a> |
|------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.name.BotanicalName

|  |
|--|
| <a href="#">addHybridRelationship</a> , <a href="#">getChildRelationships</a> , <a href="#">getHybridRelationships</a> ,<br><a href="#">getParentRelationships</a> , <a href="#">isAnamorphic</a> , <a href="#">isBinomHybrid</a> , <a href="#">isHybridFormula</a> , <a href="#">isMonomHybrid</a> ,<br><a href="#">isTrinomHybrid</a> , <a href="#">newInstance</a> , <a href="#">PARSED_NAME</a> , <a href="#">PARSENAME</a> , <a href="#">removeHybridRelationship</a> ,<br><a href="#">setAnamorphic</a> , <a href="#">setBinomHybrid</a> , <a href="#">setHybridFormula</a> , <a href="#">setHybridRelationships</a> ,<br><a href="#">setMonomHybrid</a> , <a href="#">setTrinomHybrid</a> |
|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.name.NonViralName

```
generateTitle, getAuthorshipCache, getBasionymAuthorTeam, getCombinationAuthorTeam,  

getExBasionymAuthorTeam, getExCombinationAuthorTeam, getGenusOrUninomial,  

getInfraGenericEpithet, getInfraSpecificEpithet, getSpecificEpithet, isCodeCompliant,  

setAuthorshipCache, setBasionymAuthorTeam, setCombinationAuthorTeam,  

setExBasionymAuthorTeam, setExCombinationAuthorTeam, setGenusOrUninomial,  

setInfraGenericEpithet, setInfraSpecificEpithet, setSpecificEpithet
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

```
addNameRelationship, addRelationshipFromName, addRelationshipToName, addStatus,  

addTypeDesignation, addTypeDesignation, generateNameCache, getAppendedPhrase,  

getBasionym, getCacheStrategy, getCitation, getCitationString, getHasProblem,  

getHomotypalGroup, getNameCache, getNameRelations, getNameTypeDesignations,  

getNomenclaturalMicroReference, getNomenclaturalReference, getProblems, getRank,  

getRelationsFromThisName, getRelationsToThisName, getSpecimenTypeDesignations,  

getStatus, getSynonyms, getTaxa, getYear, isCodeCompliant, isGenus, isInfraGeneric,  

isInfraSpecific, isSpecies, isSupraGeneric, isSupraGeneric, removeNameRelationship,  

removeStatus, removeTypeDesignation, removeTypeDesignation, setAppendedPhrase,  

setBasionym, setBasionym, setCacheStrategy, setHasProblem, setHomotypalGroup,  

setNameCache, setNameTypeDesignations, setNomenclaturalMicroReference,  

setNomenclaturalReference, setRank, setStatus
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdifiableEntity](#)

```
addExtension, addRights, addSource, generateTitle, getExtensions, getLsid, getRights,  

getSources, getTitleCache, isProtectedTitleCache, removeExtension, removeRights,  

removeSource, setExtensions, setLsid, setProtectedTitleCache, setRights, setSources,  

setTitleCache, setTitleCache
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

```
addAnnotations, addMarker, getAnnotations, getMarkers, removeAnnotations,  

removeMarker, setAnnotations, setMarkers
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

wait
```

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

```
addSource, getSources, removeSource
```

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

```
getCitation
```

## Constructors

### CultivarPlantName

```
public CultivarPlantName(Rank rank)
```

## Methods

### getCultivarName

```
public java.lang.String getCultivarName( )
```

---

### setCultivarName

```
public void setCultivarName(java.lang.String cultivarName)
```

#### Parameters:

cultivarName - cultivarName

## eu.etaxonomy.cdm.model.name Class HomotypicalGroup

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.name.HomotypicalGroup
```

All Implemented Interfaces:  
java.io.Serializable

public class **HomotypicalGroup**  
extends [AnnotatableEntity](#)

A homotypical group represents all names that share the same type specimens. This also includes suprageneric names like genera or families which usually have a name type designation that finally (a name type designation can also point to another suprageneric name) points to a species name, which in turn has a (set of) physical type specimen(s).

### Field Summary

|           |                                  |
|-----------|----------------------------------|
| protected | <a href="#">typeDesignations</a> |
| protected | <a href="#">typifiedNames</a>    |

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                |   |
|----------------|---|
| void           | <a href="#">addTypeDesignation(SpecimenTypeDesignation typeDesignation)</a>   |
| void           | <a href="#">addTypeDesignation(Specimen typeSpecimen, TypeDesignationStatus status, ReferenceBase citation, java.lang.String citationMicroReference, java.lang.String originalNameString)</a> |
| void           | <a href="#">addTypifiedName(TaxonNameBase typifiedName)</a>   |
| java.util.List | <a href="#">getSynonymsInGroup(ReferenceBase sec)</a><br>Retrieves the synonyms of reference sec that are part of this homotypical group.   |
| java.util.Set  | <a href="#">getTypeDesignations()</a>   |

|               |  |
|---------------|--|
| java.util.Set | <a href="#">getTypifiedNames()</a>   |
| void          | <a href="#">removeTypeDesignation(SpecimenTypeDesignation typeDesignation)</a> |
| void          | <a href="#">removeTypifiedName(TaxonNameBase typifiedName)</a>                 |
| void          | <a href="#">setTypeDesignations(java.util.Set typeDesignations)</a>            |
| void          | <a href="#">setTypifiedNames(java.util.Set typifiedNames)</a>                  |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

## Fields

**typifiedNames**

protected java.util.Set **typifiedNames**

**typeDesignations**

protected java.util.Set **typeDesignations**

## Constructors

**HomotypicalGroup**

public **HomotypicalGroup()**

(continued from last page)

## Methods

### getTypifiedNames

```
public java.util.Set getTypifiedNames()
```

---

### setTypifiedNames

```
protected void setTypifiedNames(java.util.Set typifiedNames)
```

---

### addTypifiedName

```
public void addTypifiedName(TaxonNameBase typifiedName)
```

---

### removeTypifiedName

```
public void removeTypifiedName(TaxonNameBase typifiedName)
```

---

### getTypeDesignations

```
public java.util.Set getTypeDesignations()
```

---

### setTypeDesignations

```
protected void setTypeDesignations(java.util.Set typeDesignations)
```

---

### addTypeDesignation

```
public void addTypeDesignation(SpecimenTypeDesignation typeDesignation)
```

---

### removeTypeDesignation

```
public void removeTypeDesignation(SpecimenTypeDesignation typeDesignation)
```

(continued from last page)

## addTypeDesignation

```
public void addTypeDesignation(Specimen typeSpecimen,  
    TypeDesignationStatus status,  
    ReferenceBase citation,  
    java.lang.String citationMicroReference,  
    java.lang.String originalNameString)
```

---

## getSynonymsInGroup

```
public java.util.List getSynonymsInGroup(ReferenceBase sec)
```

Retrieves the synonyms of reference sec that are part of this homotypical group. If other names are part of this group that are not considered synonyms in the respective sec-reference, then they will not be included in the resultset.

**Parameters:**

sec

**Returns:**

## eu.etaxonomy.cdm.model.name Class HybridRelationship

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.name.HybridRelationship

```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

**public class HybridRelationship**  
extends [ReferencedEntityBase](#)

<http://rs.tdwg.org/ontology/voc/TaxonName.rdf#NomenclaturalNote>

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|  |   |
|--|---|
| <a href="#">BotanicalName</a>          | <a href="#">getHybridName()</a>   |
| <a href="#">BotanicalName</a>          | <a href="#">getParentName()</a>   |
| java.lang.String                       | <a href="#">getRuleConsidered()</a>                                     |
| <a href="#">HybridRelationshipType</a> | <a href="#">getType()</a>   |
| void                                   | <a href="#">setHybridName(<a href="#">BotanicalName</a> hybridName)</a> |
| void                                   | <a href="#">setParentName(<a href="#">BotanicalName</a> parentName)</a> |
| void                                   | <a href="#">setRuleConsidered(java.lang.String ruleConsidered)</a>      |
| void                                   | <a href="#">setType(<a href="#">HybridRelationshipType</a> type)</a>    |

#### Methods inherited from class eu.etaxonomy.cdm.model.common.ReferencedEntityBase

---

```
getCitation, getCitationMicroReference, getOriginalNameString, setCitation,  
setCitationMicroReference, setOriginalNameString
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

```
addAnnotations, addMarker, getAnnotations, getMarkers, removeAnnotations,  
removeMarker, setAnnotations, setMarkers
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  
getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

```
getCitation
```

## Constructors

### HybridRelationship

```
public HybridRelationship()
```

## Methods

### getType

```
public HybridRelationshipType getType()
```

### setType

```
public void setType(HybridRelationshipType type)
```

---

(continued from last page)

## **getPropertyName**

```
public BotanicalName getPropertyName()
```

---

## **setPropertyName**

```
public void setPropertyName(BotanicalName propertyName)
```

---

## **getHybridName**

```
public BotanicalName getHybridName()
```

---

## **setHybridName**

```
public void setHybridName(BotanicalName hybridName)
```

---

## **getRuleConsidered**

```
public java.lang.String getRuleConsidered()
```

---

## **setRuleConsidered**

```
public void setRuleConsidered(java.lang.String ruleConsidered)
```

## eu.etaxonomy.cdm.model.name Class HybridRelationshipType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.common.RelationshipTermBase
              +-eu.etaxonomy.cdm.model.name.HybridRelationshipType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

### public class HybridRelationshipType

extends [RelationshipTermBase](#)

The list should be extensible at runtime through configuration. This needs to be investigated.

#### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">HybridRelationshipType()</a>   |
| public | <a href="#">HybridRelationshipType(java.lang.String term, java.lang.String label, boolean symmetric, boolean transitive)</a> |

## Method Summary

|   |                                 |
|---|---------------------------------|
| static<br><a href="#">HybridRelationshipType</a><br>e | <a href="#">FEMALE_PARENT()</a> |
| static<br><a href="#">HybridRelationshipType</a><br>e | <a href="#">FIRST_PARENT()</a>  |
| static<br><a href="#">HybridRelationshipType</a><br>e | <a href="#">MALE_PARENT()</a>   |
| static<br><a href="#">HybridRelationshipType</a><br>e | <a href="#">SECOND_PARENT()</a> |

**Methods inherited from class** [eu.etworking.cdm.model.common.RelationshipTermBase](#)

[addInverseRepresentation](#), [addRepresentation](#), [getInverseDescription](#),  
[getInverseDescription](#), [getInverseLabel](#), [getInverseLabel](#), [getInverseRepresentation](#),  
[getInverseRepresentations](#), [isSymmetric](#), [isTransitive](#), [readCsvLine](#),  
[removeInverseRepresentation](#), [setInverseRepresentations](#), [setSymmetric](#), [setTransitive](#),  
[writeCsvLine](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.OrderedTermBase](#)

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etworking.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

**Constructors**

(continued from last page)

## HybridRelationshipType

```
public HybridRelationshipType()
```

---

## HybridRelationshipType

```
public HybridRelationshipType(java.lang.String term,  
                           java.lang.String label,  
                           boolean symmetric,  
                           boolean transitive)
```

### Methods

#### FIRST\_PARENT

```
public final static HybridRelationshipType FIRST_PARENT()
```

---

#### SECOND\_PARENT

```
public final static HybridRelationshipType SECOND_PARENT()
```

---

#### FEMALE\_PARENT

```
public final static HybridRelationshipType FEMALE_PARENT()
```

---

#### MALE\_PARENT

```
public final static HybridRelationshipType MALE_PARENT()
```

# eu.etaxonomy.cdm.model.name Class NameRelationship

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.name.NameRelationship

```

## All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

**public class NameRelationship**  
extends [ReferencedEntityBase](#)

<http://rs.tdwg.org/ontology/voc/TaxonName.rdf#NomenclaturalNote>

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

|   |   |
|---|---|
| protected   | <code>NameRelationship(TaxonNameBase toName, TaxonNameBase fromName, NameRelationshipType type, java.lang.String ruleConsidered)</code> |
| creates a relationship between 2 names and adds this relationship object to the respective name relation sets |   |

## Method Summary

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| <a href="#">TaxonNameBase</a>        | <a href="#">getFromName()</a>       |
| java.lang.String                     | <a href="#">getRuleConsidered()</a> |
| <a href="#">TaxonNameBase</a>        | <a href="#">getToName()</a>         |
| <a href="#">NameRelationshipType</a> | <a href="#">getType()</a>           |

### Methods inherited from class eu.etaxonomy.cdm.model.common.ReferencedEntityBase

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#), [setCitationMicroReference](#), [setOriginalNameString](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

---

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### NameRelationship

```
protected NameRelationship(TaxonNameBase toName,  

                           TaxonNameBase fromName,  

                           NameRelationshipType type,  

                           java.lang.String ruleConsidered)
```

creates a relationship between 2 names and adds this relationship object to the respective name relation sets

#### Parameters:

- [toName](#)
- [fromName](#)
- [type](#)
- [ruleConsidered](#)

## Methods

### getFromName

```
public TaxonNameBase getFromName()
```

---

### getType

```
public NameRelationshipType getType()
```

---

### getToName

```
public TaxonNameBase getToName()
```

(continued from last page)

---

## **getRuleConsidered**

```
public java.lang.String getRuleConsidered()
```

## eu.etaxonomy.cdm.model.name Class NameRelationshipType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.common.RelationshipTermBase
              +-eu.etaxonomy.cdm.model.name.NameRelationshipType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

---

**public class NameRelationshipType**  
extends [RelationshipTermBase](#)

<http://rs.tdwg.org/ontology/voc/TaxonName.rdf#NomenclaturalNoteTypeTerm>

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.OrderedTermBase</a> |
|--|

[orderIndex](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|--|

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">NameRelationshipType()</a>   |
| public | <a href="#">NameRelationshipType(java.lang.String term, java.lang.String label, boolean symmetric, boolean transitive)</a> |

### Method Summary

|  |                                      |
|--|--------------------------------------|
| static<br><a href="#">NameRelationshipType</a> | <a href="#">ALTERNATIVE_NAME()</a>   |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">BASIONYM()</a>           |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">BLOCKING_NAME_FOR()</a>  |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">CONSERVED AGAINST()</a>  |
| boolean  | <a href="#">isIllegitimateType()</a> |

|  |  |
|--|--|
| boolean  | <a href="#">isValidType()</a>              |
| boolean  | <a href="#">isLegitimateType()</a>         |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">LATER_HOMONYM()</a>            |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">LATER_VALIDATED_BY_NAME()</a>  |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">ORTHOGRAPHIC_VARIANT()</a>     |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">REPLACED_SYNONYM()</a>         |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">TREATED_AS_LATER_HOMONYM()</a> |
| static<br><a href="#">NameRelationshipType</a> | <a href="#">VALIDATED_BY_NAME()</a>        |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.RelationshipTermBase](#)

[addInverseRepresentation](#), [addRepresentation](#), [getInverseDescription](#),  
[getInverseDescription](#), [getInverseLabel](#), [getInverseLabel](#), [getInverseRepresentation](#),  
[getInverseRepresentations](#), [isSymmetric](#), [isTransitive](#), [readCsvLine](#),  
[removeInverseRepresentation](#), [setInverseRepresentations](#), [setSymmetric](#), [setTransitive](#),  
[writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [find byUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

---

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

---

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

**Methods inherited from interface** java.lang.Comparable

```
compareTo
```

## Constructors

**NameRelationshipType**

```
public NameRelationshipType()
```

**NameRelationshipType**

```
public NameRelationshipType(java.lang.String term,
                           java.lang.String label,
                           boolean symmetric,
                           boolean transitive)
```

## Methods

**isValidType**

```
public boolean isValidType()
```

**isLegitimateType**

```
public boolean isLegitimateType()
```

**isIllegitimateType**

```
public boolean isIllegitimateType()
```

## **ORTHOGRAPHIC\_VARIANT**

```
public final static NameRelationshipType ORTHOGRAPHIC_VARIANT()
```

---

## **LATER\_HOMONYM**

```
public final static NameRelationshipType LATER_HOMONYM()
```

---

## **TREATED\_AS\_LATER\_HOMONYM**

```
public final static NameRelationshipType TREATED_AS_LATER_HOMONYM()
```

---

## **ALTERNATIVE\_NAME**

```
public final static NameRelationshipType ALTERNATIVE_NAME()
```

---

## **BASIONYM**

```
public final static NameRelationshipType BASIONYM()
```

---

## **REPLACED\_SYNONYM**

```
public final static NameRelationshipType REPLACED_SYNONYM()
```

---

## **CONSERVED AGAINST**

```
public final static NameRelationshipType CONSERVED AGAINST()
```

---

## **VALIDATED\_BY\_NAME**

```
public final static NameRelationshipType VALIDATED_BY_NAME()
```

---

## **LATER\_VALIDATED\_BY\_NAME**

```
public final static NameRelationshipType LATER_VALIDATED_BY_NAME()
```

---

## **BLOCKING\_NAME\_FOR**

```
public final static NameRelationshipType BLOCKING_NAME_FOR()
```

---

(continued from last page)

## eu.etaxonomy.cdm.model.name Class NameTypeDesignation

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.name.NameTypeDesignation
```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

public class **NameTypeDesignation**  
extends [ReferencedEntityBase](#)

{only for typified names which have a rank above "species", in this case the type has to be a "species" name}

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

|           |  |
|-----------|--|
| protected | <code>NameTypeDesignation(TaxonNameBase typifiedName, TaxonNameBase typeSpecies, ReferenceBase citation, java.lang.String citationMicroReference, java.lang.String originalNameString, boolean isRejectedType, boolean isConservedType)</code> |
|-----------|--|

## Method Summary

|                               |   |
|-------------------------------|---|
| <a href="#">TaxonNameBase</a> | <a href="#">getTypifiedName()</a>                         |
| <a href="#">TaxonNameBase</a> | <a href="#">getTypifiedName()</a>                         |
| boolean                       | <a href="#">isConservedType()</a>                         |
| boolean                       | <a href="#">isRejectedType()</a>                          |
| void                          | <a href="#">setConservedType(boolean isConservedType)</a> |
| void                          | <a href="#">setRejectedType(boolean isRejectedType)</a>   |

#### Methods inherited from class eu.etaxonomy.cdm.model.common.ReferencedEntityBase

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

---

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### NameTypeDesignation

```
protected NameTypeDesignation(TaxonNameBase typifiedName,  

TaxonNameBase typeSpecies,  

ReferenceBase citation,  

java.lang.String citationMicroReference,  

java.lang.String originalNameString,  

boolean isRejectedType,  

boolean isConservedType)
```

## Methods

### getTypifiedName

```
public TaxonNameBase getTypifiedName()
```

---

### getTypeSpecies

```
public TaxonNameBase getTypeSpecies()
```

(continued from last page)

## **isRejectedType**

```
public boolean isRejectedType()
```

---

## **setRejectedType**

```
public void setRejectedType(boolean isRejectedType)
```

---

## **isConservedType**

```
public boolean isConservedType()
```

---

## **setConservedType**

```
public void setConservedType(boolean isConservedType)
```

## eu.etaxonomy.cdm.model.name Class NomenclaturalStatus

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.name.NomenclaturalStatus

```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

public class **NomenclaturalStatus**  
 extends [ReferencedEntityBase](#)

<http://rs.tdwg.org/ontology/voc/TaxonName.rdf#PublicationStatus>

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|   |   |
|---|---|
| java.lang.String                        | <a href="#">getRuleConsidered()</a>                                   |
| <a href="#">NomenclaturalStatusType</a> | <a href="#">getType()</a>   |
| void                                    | <a href="#">setRuleConsidered(java.lang.String ruleConsidered)</a>    |
| void                                    | <a href="#">setType(<a href="#">NomenclaturalStatusType</a> type)</a> |

#### Methods inherited from class eu.etaxonomy.cdm.model.common.ReferencedEntityBase

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

---

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### NomenclaturalStatus

public **NomenclaturalStatus**()

## Methods

### getType

public [NomenclaturalStatusType](#) **getType**()

---

### setType

public void **setType**([NomenclaturalStatusType](#) type)

**Parameters:**

type - type

---

### getRuleConsidered

public java.lang.String **getRuleConsidered**()

---

### setRuleConsidered

public void **setRuleConsidered**(java.lang.String ruleConsidered)

(continued from last page)

**Parameters:**

ruleConsidered - ruleConsidered

## eu.etaxonomy.cdm.model.name Class NomenclaturalStatusType

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.name.NomenclaturalStatusType
```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **NomenclaturalStatusType**

extends [OrderedTermBase](#)

<http://rs.tdwg.org/ontology/voc/TaxonName.rdf#PublicationStatus>

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.OrderedTermBase</a> |
|--|

[orderIndex](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|--|

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">NomenclaturalStatusType(java.lang.String term, java.lang.String label)</a> |
|--------|--|

### Method Summary

|   |                                       |
|---|---------------------------------------|
| static<br><a href="#">NomenclaturalStatusType</a><br>pe | <a href="#">ALTERNATIVE()</a>         |
| static<br><a href="#">NomenclaturalStatusType</a><br>pe | <a href="#">AMBIGUOUS()</a>           |
| static<br><a href="#">NomenclaturalStatusType</a><br>pe | <a href="#">COMBINATION_INVALID()</a> |
| static<br><a href="#">NomenclaturalStatusType</a><br>pe | <a href="#">CONFUSUM()</a>            |

|   |                                     |
|---|-------------------------------------|
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>CONSERVED_PROP()</u>             |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>CONSERVED()</u>                  |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>DOUBTFUL()</u>                   |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>ILLEGITIMATE()</u>               |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>INVALID()</u>                    |
| boolean                                       | <u>isIllegitimateType()</u>         |
| boolean                                       | <u>isValidType()</u>                |
| boolean                                       | <u>isLegitimateType()</u>           |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>LEGITIMATE()</u>                 |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>NOVUM()</u>                      |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>NUDUM()</u>                      |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>ORTHOGRAPHY_CONSERVED_PROP()</u> |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>ORTHOGRAPHY_CONSERVED()</u>      |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>PROVISIONAL()</u>                |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>REJECTED_PROP()</u>              |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>REJECTED()</u>                   |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>SANCTIONED()</u>                 |
| static<br><u>NomenclaturalStatusTy<br/>pe</u> | <u>SUPERFLUOUS()</u>                |

|  |  |
|--|--|
| <pre>static NomenclaturalStatusTy pe</pre> | <a href="#">UTIQUE_REJECTED_PROP()</a> |
| <pre>static NomenclaturalStatusTy pe</pre> | <a href="#">UTIQUE_REJECTED()</a>      |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindof](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

## Constructors

(continued from last page)

## NomenclaturalStatusType

```
public NomenclaturalStatusType()
```

---

## NomenclaturalStatusType

```
public NomenclaturalStatusType(java.lang.String term,  
                               java.lang.String label)
```

### Methods

#### isValidType

```
public boolean isValidType()
```

---

#### isLegitimateType

```
public boolean isLegitimateType()
```

---

#### isIllegitimateType

```
public boolean isIllegitimateType()
```

---

## AMBIGUOUS

```
public final static NomenclaturalStatusType AMBIGUOUS()
```

---

## DOUBTFUL

```
public final static NomenclaturalStatusType DOUBTFUL()
```

---

## CONFUSUM

```
public final static NomenclaturalStatusType CONFUSUM()
```

---

## ILLEGITIMATE

```
public final static NomenclaturalStatusType ILLEGITIMATE()
```

## **SUPERFLUOUS**

public final static [NomenclaturalStatusType](#) SUPERFLUOUS( )

---

## **REJECTED**

public final static [NomenclaturalStatusType](#) REJECTED( )

---

## **UTIQUE\_REJECTED**

public final static [NomenclaturalStatusType](#) UTIQUE\_REJECTED( )

---

## **CONSERVED\_PROP**

public final static [NomenclaturalStatusType](#) CONSERVED\_PROP( )

---

## **ORTHOGRAPHY\_CONSERVED\_PROP**

public final static [NomenclaturalStatusType](#) ORTHOGRAPHY\_CONSERVED\_PROP( )

---

## **LEGITIMATE**

public final static [NomenclaturalStatusType](#) LEGITIMATE( )

---

## **ALTERNATIVE**

public final static [NomenclaturalStatusType](#) ALTERNATIVE( )

---

## **NOVUM**

public final static [NomenclaturalStatusType](#) NOVUM( )

---

## **UTIQUE\_REJECTED\_PROP**

public final static [NomenclaturalStatusType](#) UTIQUE\_REJECTED\_PROP( )

---

## **ORTHOGRAPHY\_CONSERVED**

public final static [NomenclaturalStatusType](#) ORTHOGRAPHY\_CONSERVED( )

---

(continued from last page)

---

## **REJECTED\_PROP**

```
public final static NomenclaturalStatusType REJECTED_PROP()
```

---

## **CONSERVED**

```
public final static NomenclaturalStatusType CONSERVED()
```

---

## **SANCTIONED**

```
public final static NomenclaturalStatusType SANCTIONED()
```

---

## **INVALID**

```
public final static NomenclaturalStatusType INVALID()
```

---

## **NUDUM**

```
public final static NomenclaturalStatusType NUDUM()
```

---

## **COMBINATION\_INVALID**

```
public final static NomenclaturalStatusType COMBINATION_INVALID()
```

---

## **PROVISIONAL**

```
public final static NomenclaturalStatusType PROVISIONAL()
```

---

## eu.etaxonomy.cdm.model.name Class NonViralName

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.name.TaxonNameBase
            +-eu.etaxonomy.cdm.model.name.NonViralName

```

### All Implemented Interfaces:

[java.io.Serializable](#), [IOriginalSource](#), [IReferencedEntity](#)

### Direct Known Subclasses:

[BacterialName](#), [BotanicalName](#), [ZoologicalName](#)

### public class NonViralName

extends [TaxonNameBase](#)

Taxon name class for all non viral taxa. Parentetical authorship is derived from basionym relationship.

#### Fields inherited from class [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[cacheStrategy](#), [nameParser](#), [nameTypeDesignations](#), [protectedNameCache](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

|           |  |
|-----------|--|
| protected | <a href="#">NonViralName()</a>   |
| public    | <a href="#">NonViralName(<a href="#">Rank</a> rank)</a>  |
| public    | <a href="#">NonViralName(<a href="#">Rank</a> rank, java.lang.String genusOrUninomial, java.lang.String specificEpithet, java.lang.String infraSpecificEpithet, <a href="#">Agent</a> combinationAuthorTeam, <a href="#">INomenclaturalReference</a> nomenclaturalReference, java.lang.String nomenclMicroRef)</a> |

## Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">generateTitle()</a>  |
| java.lang.String | <a href="#">getAuthorshipCache()</a><br>returns concatenated und formated authorteams including basionym and combination authors |

|                       |   |
|-----------------------|---|
| <a href="#">Agent</a> | <a href="#">getBasionymAuthorTeam()</a>   |
| <a href="#">Agent</a> | <a href="#">getCombinationAuthorTeam()</a>  |
| <a href="#">Agent</a> | <a href="#">getExBasionymAuthorTeam()</a>   |
| <a href="#">Agent</a> | <a href="#">getExCombinationAuthorTeam()</a>  |
| java.lang.String      | <a href="#">getGenusOrUninomial()</a>   |
| java.lang.String      | <a href="#">getInfraGenericEpithet()</a>  |
| java.lang.String      | <a href="#">getInfraSpecificEpithet()</a>   |
| java.lang.String      | <a href="#">getSpecificEpithet()</a>  |
| boolean               | <a href="#">isCodeCompliant()</a>   |
| void                  | <a href="#">setAuthorshipCache(java.lang.String authorshipCache)</a>                      |
| void                  | <a href="#">setBasionymAuthorTeam(<a href="#">Agent</a> basionymAuthorTeam)</a>           |
| void                  | <a href="#">setCombinationAuthorTeam(<a href="#">Agent</a> combinationAuthorTeam)</a>     |
| void                  | <a href="#">setExBasionymAuthorTeam(<a href="#">Agent</a> exBasionymAuthorTeam)</a>       |
| void                  | <a href="#">setExCombinationAuthorTeam(<a href="#">Agent</a> exCombinationAuthorTeam)</a> |
| void                  | <a href="#">setGenusOrUninomial(java.lang.String genusOrUninomial)</a>                    |
| void                  | <a href="#">setInfraGenericEpithet(java.lang.String infraGenericEpithet)</a>              |
| void                  | <a href="#">setInfraSpecificEpithet(java.lang.String infraSpecificEpithet)</a>            |
| void                  | <a href="#">setSpecificEpithet(java.lang.String specificEpithet)</a>                      |

**Methods inherited from class** [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[addNameRelationship](#), [addRelationshipFromName](#), [addRelationshipToName](#), [addStatus](#), [addTypeDesignation](#), [addTypeDesignation](#), [generateNameCache](#), [getAppendedPhrase](#), [getBasionym](#), [getCacheStrategy](#), [getCitation](#), [getCitationString](#), [getHasProblem](#), [getHomotypicalGroup](#), [getNameCache](#), [getNameRelations](#), [getNameTypeDesignations](#), [getNomenclaturalMicroReference](#), [getNomenclaturalReference](#), [getProblems](#), [getRank](#), [getRelationsFromThisName](#), [getRelationsToThisName](#), [getSpecimenTypeDesignations](#), [getStatus](#), [getSynonyms](#), [getTaxa](#), [getYear](#), [isCodeCompliant](#), [isGenus](#), [isInfraGeneric](#), [isInfraSpecific](#), [isSpecies](#), [isSupraGeneric](#), [isSupraGeneric](#), [removeNameRelationship](#), [removeStatus](#), [removeTypeDesignation](#), [removeTypeDesignation](#), [setAppendedPhrase](#), [setBasionym](#), [setBasionym](#), [setCacheStrategy](#), [setHasProblem](#), [setHomotypicalGroup](#), [setNameCache](#), [setNameTypeDesignations](#), [setNomenclaturalMicroReference](#), [setNomenclaturalReference](#), [setRank](#), [setStatus](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### NonViralName

`protected NonViralName()`

### NonViralName

`public NonViralName(Rank rank)`

(continued from last page)

## NonViralName

```
public NonViralName(Rank rank,  
                    java.lang.String genusOrUninomial,  
                    java.lang.String specificEpithet,  
                    java.lang.String infraSpecificEpithet,  
                    Agent combinationAuthorTeam,  
                    INomenclaturalReference nomenclaturalReference,  
                    java.lang.String nomenclMicroRef)
```

## Methods

### getCombinationAuthorTeam

```
public Agent getCombinationAuthorTeam()
```

---

### setCombinationAuthorTeam

```
public void setCombinationAuthorTeam(Agent combinationAuthorTeam)
```

---

### getExCombinationAuthorTeam

```
public Agent getExCombinationAuthorTeam()
```

---

### setExCombinationAuthorTeam

```
public void setExCombinationAuthorTeam(Agent exCombinationAuthorTeam)
```

---

### getBasionymAuthorTeam

```
public Agent getBasionymAuthorTeam()
```

---

### setBasionymAuthorTeam

```
public void setBasionymAuthorTeam(Agent basionymAuthorTeam)
```

---

### getExBasionymAuthorTeam

```
public Agent getExBasionymAuthorTeam()
```

---

### setExBasionymAuthorTeam

```
public void setExBasionymAuthorTeam(Agent exBasionymAuthorTeam)
```

(continued from last page)

---

**getGenusOrUninomial**

```
public java.lang.String getGenusOrUninomial()
```

---

**setGenusOrUninomial**

```
public void setGenusOrUninomial(java.lang.String genusOrUninomial)
```

---

**getInfraGenericEpithet**

```
public java.lang.String getInfraGenericEpithet()
```

---

**setInfraGenericEpithet**

```
public void setInfraGenericEpithet(java.lang.String infraGenericEpithet)
```

**Parameters:**

infraGenericEpithet - infraGenericEpithet

---

**getSpecificEpithet**

```
public java.lang.String getSpecificEpithet()
```

---

**setSpecificEpithet**

```
public void setSpecificEpithet(java.lang.String specificEpithet)
```

**Parameters:**

specificEpithet - specificEpithet

---

**getInfraSpecificEpithet**

```
public java.lang.String getInfraSpecificEpithet()
```

---

**setInfraSpecificEpithet**

```
public void setInfraSpecificEpithet(java.lang.String infraSpecificEpithet)
```

---

**Parameters:**

infraSpecificEpithet - infraSpecificEpithet

---

## **generateTitle**

```
public java.lang.String generateTitle()
```

---

## **getAuthorshipCache**

```
public java.lang.String getAuthorshipCache()
```

returns concatenated und formated authorteams including basionym and combination authors

---

## **setAuthorshipCache**

```
public void setAuthorshipCache(java.lang.String authorshipCache)
```

---

## **isCodeCompliant**

```
public boolean isCodeCompliant()
```

## eu.etaxonomy.cdm.model.name Class Rank

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.name.Rank

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **Rank**  
extends [OrderedTermBase](#)

<http://rs.tdwg.org/ontology/voc/TaxonRank#TaxonRankTerm>

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[orderIndex](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">Rank()</a>  |
| public | <a href="#">Rank(java.lang.String term, java.lang.String label)</a> |

## Method Summary

|                             |                                 |
|-----------------------------|---------------------------------|
| static <a href="#">Rank</a> | <a href="#">BIOVARIETY()</a>    |
| static <a href="#">Rank</a> | <a href="#">CANDIDATE()</a>     |
| static <a href="#">Rank</a> | <a href="#">CLASS()</a>         |
| static <a href="#">Rank</a> | <a href="#">CONVAR()</a>        |
| static <a href="#">Rank</a> | <a href="#">CULTIVAR()</a>      |
| static <a href="#">Rank</a> | <a href="#">CULTIVARGROUP()</a> |

|                             |  |
|-----------------------------|--|
| static <a href="#">Rank</a> | <a href="#">DENOMINATIONCLASS()</a>  |
| static <a href="#">Rank</a> | <a href="#">DIVISION()</a>   |
| static <a href="#">Rank</a> | <a href="#">DOMAIN()</a>   |
| static <a href="#">Rank</a> | <a href="#">EMPIRE()</a>   |
| static <a href="#">Rank</a> | <a href="#">FAMILY()</a>   |
| static <a href="#">Rank</a> | <a href="#">FORM()</a>   |
| static <a href="#">Rank</a> | <a href="#">GENUS()</a>  |
| java.lang.String            | <a href="#">getAbbreviation()</a>  |
| static <a href="#">Rank</a> | <a href="#">getRankByAbbreviation(java.lang.String abbrev)</a><br>TODO preliminary implementation for BotanicalNameParser * not yet complete |
| static <a href="#">Rank</a> | <a href="#">getRankByName(java.lang.String rankName)</a><br>TODO preliminary implementation for BotanicalNameParser not yet complete         |
| static <a href="#">Rank</a> | <a href="#">getRankByNameOrAbbreviation(java.lang.String strRank)</a><br>NOT YET COMPLETE !!   |
| static <a href="#">Rank</a> | <a href="#">GRAFTCHIMAERA()</a>  |
| static <a href="#">Rank</a> | <a href="#">GREX()</a>   |
| static <a href="#">Rank</a> | <a href="#">INFRACLASS()</a>   |
| static <a href="#">Rank</a> | <a href="#">INFRADIVISION()</a>  |
| static <a href="#">Rank</a> | <a href="#">INFRAFAMILY()</a>  |
| static <a href="#">Rank</a> | <a href="#">INFRAGENERICTAXON()</a>  |
| static <a href="#">Rank</a> | <a href="#">INFRAGENUS()</a>   |
| static <a href="#">Rank</a> | <a href="#">INFRAKINGDOM()</a>   |
| static <a href="#">Rank</a> | <a href="#">INFRAORDER()</a>   |
| static <a href="#">Rank</a> | <a href="#">INFRAPHYLUM()</a>  |
| static <a href="#">Rank</a> | <a href="#">INFRASPECIES()</a>   |
| static <a href="#">Rank</a> | <a href="#">INFRASPECIFICTAXON()</a>   |

|                             |   |
|-----------------------------|---|
| static <a href="#">Rank</a> | <a href="#">INFRATRIBE()</a>  |
| boolean                     | <a href="#">isGenus()</a><br>True, if this Rank equals GENUS, else false.                                       |
| boolean                     | <a href="#">isInfraGeneric()</a><br>True, if this Rank is lower than GENUS and higher than SPECIES, else false. |
| boolean                     | <a href="#">isInfraSpecific()</a><br>True, if this Rank is lower than SPECIES, else false.                      |
| boolean                     | <a href="#">isSpecies()</a><br>True, if this Rank equals SPECIES, else false.                                   |
| boolean                     | <a href="#">isSupraGeneric()</a><br>True, if this Rank is higher than GENUS, else false.                        |
| static <a href="#">Rank</a> | <a href="#">KINGDOM()</a>   |
| static <a href="#">Rank</a> | <a href="#">ORDER()</a>   |
| static <a href="#">Rank</a> | <a href="#">PATHOVARIETY()</a>  |
| static <a href="#">Rank</a> | <a href="#">PHYLUM()</a>  |
| static <a href="#">Rank</a> | <a href="#">SECTION()</a>   |
| static <a href="#">Rank</a> | <a href="#">SERIES()</a>  |
| static <a href="#">Rank</a> | <a href="#">SPECIALFORM()</a>   |
| static <a href="#">Rank</a> | <a href="#">SPECIES()</a>   |
| static <a href="#">Rank</a> | <a href="#">SPECIESAGGREGATE()</a>  |
| static <a href="#">Rank</a> | <a href="#">SUBCLASS()</a>  |
| static <a href="#">Rank</a> | <a href="#">SUBDIVISION()</a>   |
| static <a href="#">Rank</a> | <a href="#">SUBFAMILY()</a>   |
| static <a href="#">Rank</a> | <a href="#">SUBFORM()</a>   |
| static <a href="#">Rank</a> | <a href="#">SUBGENUS()</a>  |
| static <a href="#">Rank</a> | <a href="#">SUBKINGDOM()</a>  |
| static <a href="#">Rank</a> | <a href="#">SUBORDER()</a>  |
| static <a href="#">Rank</a> | <a href="#">SUBPHYLUM()</a>   |

|                             |  |
|-----------------------------|--|
| static <a href="#">Rank</a> | <a href="#">SUBSECTION()</a>           |
| static <a href="#">Rank</a> | <a href="#">SUBSERIES()</a>            |
| static <a href="#">Rank</a> | <a href="#">SUBSPECIES()</a>           |
| static <a href="#">Rank</a> | <a href="#">SUBSPECIFICAGGREGATE()</a> |
| static <a href="#">Rank</a> | <a href="#">SUBSUBFORM()</a>           |
| static <a href="#">Rank</a> | <a href="#">SUBSUBVARIETY()</a>        |
| static <a href="#">Rank</a> | <a href="#">SUBTRIBE()</a>             |
| static <a href="#">Rank</a> | <a href="#">SUBVARIETY()</a>           |
| static <a href="#">Rank</a> | <a href="#">SUPERCLASS()</a>           |
| static <a href="#">Rank</a> | <a href="#">SUPERDIVISION()</a>        |
| static <a href="#">Rank</a> | <a href="#">SUPERFAMILY()</a>          |
| static <a href="#">Rank</a> | <a href="#">SUPERKINGDOM()</a>         |
| static <a href="#">Rank</a> | <a href="#">SUPERORDER()</a>           |
| static <a href="#">Rank</a> | <a href="#">SUPERPHYLUM()</a>          |
| static <a href="#">Rank</a> | <a href="#">SUPERTRIBE()</a>           |
| static <a href="#">Rank</a> | <a href="#">SUPRAGENERICTAXON()</a>    |
| static <a href="#">Rank</a> | <a href="#">TRIBE()</a>                |
| static <a href="#">Rank</a> | <a href="#">VARIETY()</a>              |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

---

[addRepresentation](#), [equals](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

#### Methods inherited from interface [java.lang.Comparable](#)

[compareTo](#)

## Constructors

### Rank

public [Rank\(\)](#)

---

### Rank

public [Rank\(java.lang.String term,](#)  
[java.lang.String label\)](#)

## Methods

### EMPIRE

public final static [Rank EMPIRE\(\)](#)

(continued from last page)

## DOMAIN

```
public final static Rank DOMAIN()
```

---

## SUPERKINGDOM

```
public final static Rank SUPERKINGDOM()
```

---

## KINGDOM

```
public final static Rank KINGDOM()
```

---

## SUBKINGDOM

```
public final static Rank SUBKINGDOM()
```

---

## INFRAKINGDOM

```
public final static Rank INFRAKINGDOM()
```

---

## SUPERPHYLUM

```
public final static Rank SUPERPHYLUM()
```

---

## PHYLUM

```
public final static Rank PHYLUM()
```

---

## SUBPHYLUM

```
public final static Rank SUBPHYLUM()
```

---

## INFRAPHYLUM

```
public final static Rank INFRAPHYLUM()
```

---

## SUPERDIVISION

```
public final static Rank SUPERDIVISION()
```

(continued from last page)

---

## DIVISION

```
public final static Rank DIVISION()
```

---

## SUBDIVISION

```
public final static Rank SUBDIVISION()
```

---

## INFRADIVISION

```
public final static Rank INFRADIVISION()
```

---

## SUPERCLASS

```
public final static Rank SUPERCLASS()
```

---

## CLASS

```
public final static Rank CLASS()
```

---

## SUBCLASS

```
public final static Rank SUBCLASS()
```

---

## INFRACLASS

```
public final static Rank INFRACLASS()
```

---

## SUPERORDER

```
public final static Rank SUPERORDER()
```

---

## ORDER

```
public final static Rank ORDER()
```

---

---

(continued from last page)

## **SUBORDER**

```
public final static Rank SUBORDER()
```

---

## **INFRAORDER**

```
public final static Rank INFRAORDER()
```

---

## **SUPERFAMILY**

```
public final static Rank SUPERFAMILY()
```

---

## **FAMILY**

```
public final static Rank FAMILY()
```

---

## **SUBFAMILY**

```
public final static Rank SUBFAMILY()
```

---

## **INFRAFAMILY**

```
public final static Rank INFRAFAMILY()
```

---

## **SUPERTRIBE**

```
public final static Rank SUPERTRIBE()
```

---

## **TRIBE**

```
public final static Rank TRIBE()
```

---

## **SUBTRIBE**

```
public final static Rank SUBTRIBE()
```

---

## **INFRATRIBE**

```
public final static Rank INFRATRIBE()
```

---

(continued from last page)

---

## SUPRAGENERICTAXON

```
public final static Rank SUPRAGENERICTAXON()
```

---

## GENUS

```
public final static Rank GENUS()
```

---

## SUBGENUS

```
public final static Rank SUBGENUS()
```

---

## INFRAGENUS

```
public final static Rank INFRAGENUS()
```

---

## SECTION

```
public final static Rank SECTION()
```

---

## SUBSECTION

```
public final static Rank SUBSECTION()
```

---

## SERIES

```
public final static Rank SERIES()
```

---

## SUBSERIES

```
public final static Rank SUBSERIES()
```

---

## SPECIESAGGREGATE

```
public final static Rank SPECIESAGGREGATE()
```

---

(continued from last page)

## INFRAGENERICTAXON

```
public final static Rank INFRAGENERICTAXON()
```

---

## SPECIES

```
public final static Rank SPECIES()
```

---

## SUBSPECIFICAGGREGATE

```
public final static Rank SUBSPECIFICAGGREGATE()
```

---

## SUBSPECIES

```
public final static Rank SUBSPECIES()
```

---

## INFRASPECIES

```
public final static Rank INFRASPECIES()
```

---

## VARIETY

```
public final static Rank VARIETY()
```

---

## BIOVARIETY

```
public final static Rank BIOVARIETY()
```

---

## PATHOVARIETY

```
public final static Rank PATHOVARIETY()
```

---

## SUBVARIETY

```
public final static Rank SUBVARIETY()
```

---

## SUBSUBVARIETY

```
public final static Rank SUBSUBVARIETY()
```

(continued from last page)

---

## CONVAR

```
public final static Rank CONVAR()
```

---

## FORM

```
public final static Rank FORM()
```

---

## SPECIALFORM

```
public final static Rank SPECIALFORM()
```

---

## SUBFORM

```
public final static Rank SUBFORM()
```

---

## SUBSUBFORM

```
public final static Rank SUBSUBFORM()
```

---

## INFRASPECIFICTAXON

```
public final static Rank INFRASPECIFICTAXON()
```

---

## CANDIDATE

```
public final static Rank CANDIDATE()
```

---

## DENOMINATIONCLASS

```
public final static Rank DENOMINATIONCLASS()
```

---

## GREX

```
public final static Rank GREX()
```

---

(continued from last page)

## GRAFTCHIMAERA

```
public final static Rank GRAFTCHIMAERA()
```

---

## CULTIVARGROUP

```
public final static Rank CULTIVARGROUP()
```

---

## CULTIVAR

```
public final static Rank CULTIVAR()
```

---

### isSupraGeneric

```
public boolean isSupraGeneric()
```

True, if this Rank is higher than GENUS, else false.

**Returns:**

---

### isGenus

```
public boolean isGenus()
```

True, if this Rank equals GENUS, else false.

**Returns:**

---

### isInfraGeneric

```
public boolean isInfraGeneric()
```

True, if this Rank is lower than GENUS and higher than SPECIES, else false.

**Returns:**

---

### isSpecies

```
public boolean isSpecies()
```

True, if this Rank equals SPECIES, else false.

**Returns:**

---

### isInfraSpecific

```
public boolean isInfraSpecific()
```

(continued from last page)

True, if this Rank is lower than SPECIES, else false.

**Returns:**

---

**getRankByNameOrAbbreviation**

```
public static Rank getRankByNameOrAbbreviation(java.lang.String strRank)
throws eu.etaxonomy.cdm.strategy.exceptions.UnknownRankException
```

NOT YET COMPLETE !!

**Parameters:**

strRank

**Returns:**

Rank

**Throws:**

UnknownRankException

---

**getRankByAbbreviation**

```
public static Rank getRankByAbbreviation(java.lang.String abbrev)
throws eu.etaxonomy.cdm.strategy.exceptions.UnknownRankException
```

TODO preliminary implementation for BotanicalNameParser \* not yet complete

---

**getRankByName**

```
public static Rank getRankByName(java.lang.String rankName)
throws eu.etaxonomy.cdm.strategy.exceptions.UnknownRankException
```

TODO preliminary implementation for BotanicalNameParser not yet complete

---

**getAbbreviation**

```
public java.lang.String getAbbreviation()
```

## eu.etaxonomy.cdm.model.name Class SpecimenTypeDesignation

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.name.SpecimenTypeDesignation
```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

**public class SpecimenTypeDesignation**  
extends [ReferencedEntityBase](#)

{only for typified names which have the "species" rank or below}

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

|        |   |
|--------|---|
| public | <code>SpecimenTypeDesignation(HomotypicalGroup homotypicalGroup, DerivedUnit specimen, TypeDesignationStatus status, ReferenceBase citation, java.lang.String citationMicroReference, java.lang.String originalNameString)</code> |
|--------|---|

### Method Summary

|                                       |  |
|---------------------------------------|--|
| <a href="#">HomotypicalGroup</a>      | <code>getHomotypicalGroup()</code>                                     |
| <a href="#">DerivedUnit</a>           | <code>getTypeSpecimen()</code>   |
| <a href="#">TypeDesignationStatus</a> | <code>getTypeStatus()</code>   |
| void                                  | <code>setHomotypicalGroup(HomotypicalGroup newHomotypicalGroup)</code> |
| void                                  | <code>setTypeSpecimen(DerivedUnit typeSpecimen)</code>                 |
| void                                  | <code>setTypeStatus(TypeDesignationStatus typeStatus)</code>           |

#### Methods inherited from class eu.etaxonomy.cdm.model.common.ReferencedEntityBase

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#), [setCitationMicroReference](#), [setOriginalNameString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

---

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### SpecimenTypeDesignation

```
public SpecimenTypeDesignation(HomotypicalGroup homotypicalGroup,  

DerivedUnit specimen,  

TypeDesignationStatus status,  

ReferenceBase citation,  

java.lang.String citationMicroReference,  

java.lang.String originalNameString)
```

## Methods

### getHomotypicalGroup

```
public HomotypicalGroup getHomotypicalGroup()
```

### setHomotypicalGroup

```
public void setHomotypicalGroup(HomotypicalGroup newHomotypicalGroup)
```

### getTypeSpecimen

```
public DerivedUnit getTypeSpecimen()
```

(continued from last page)

---

## **setTypeSpecimen**

```
public void setTypeSpecimen(DerivedUnit typeSpecimen)
```

---

## **getTypeStatus**

```
public TypeDesignationStatus getTypeStatus( )
```

---

## **setTypeStatus**

```
public void setTypeStatus(TypeDesignationStatus typeStatus)
```

## eu.etaxonomy.cdm.model.name Class TaxonNameBase

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.name.TaxonNameBase
```

### All Implemented Interfaces:

[IReferencedEntity](#), [java.io.Serializable](#), [IOriginalSource](#)

### Direct Known Subclasses:

[NonViralName](#), [ViralName](#)

---

public abstract class **TaxonNameBase**  
 extends [IdentifiableEntity](#)  
 implements [IOriginalSource](#), [java.io.Serializable](#), [IReferencedEntity](#)

The upmost (abstract) class for scientific taxon names regardless of the any particular nomenclatural code. The scientific name including author strings and maybe year is stored in IdentifiableEntity.titleCache

### Field Summary

|                  |                                      |
|------------------|--------------------------------------|
| protected        | <a href="#">cacheStrategy</a>        |
| protected static | <a href="#">nameParser</a>           |
| protected        | <a href="#">nameTypeDesignations</a> |
| protected        | <a href="#">protectedNameCache</a>   |

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">TaxonNameBase()</a>                          |
| public | <a href="#">TaxonNameBase(<a href="#">Rank</a> rank)</a> |

### Method Summary

|      |   |
|------|---|
| void | <a href="#">addNameRelationship(<a href="#">NameRelationship</a> rel)</a> |
|------|---|

|  |  |
|--|--|
| void   | <a href="#">addRelationshipFromName(TaxonNameBase fromName, NameRelationshipType type, java.lang.String ruleConsidered)</a>  |
| void   | <a href="#">addRelationshipToName(TaxonNameBase toName, NameRelationshipType type, java.lang.String ruleConsidered)</a><br>Add a name relationship to both names involved  |
| void   | <a href="#">addStatus(NomenclaturalStatus status)</a>  |
| void   | <a href="#">addTypeDesignation(Specimen typeSpecimen, TypeDesignationStatus status, ReferenceBase citation, java.lang.String citationMicroReference, java.lang.String originalNameString)</a>                        |
| void   | <a href="#">addTypeDesignation(TaxonNameBase typeSpecies, ReferenceBase citation, java.lang.String citationMicroReference, java.lang.String originalNameString, boolean isRejectedType, boolean isConservedType)</a> |
| java.lang.String                             | <a href="#">generateNameCache()</a>  |
| java.lang.String                             | <a href="#">getAppendedPhrase()</a>  |
| TaxonNameBase                                | <a href="#">getBasionym()</a>  |
| eu.etaxonomy.cdm.strategy.INameCacheStrategy | <a href="#">getCacheStrategy()</a>   |
| StrictReferenceBase                          | <a href="#">getCitation()</a>  |
| java.lang.String                             | <a href="#">getCitationString()</a>  |
| boolean                                      | <a href="#">getHasProblem()</a>  |
| HomotypicalGroup                             | <a href="#">getHomotypicalGroup()</a>  |
| java.lang.String                             | <a href="#">getNameCache()</a>   |
| java.util.Set                                | <a href="#">getNameRelations()</a>   |
| java.util.Set                                | <a href="#">getNameTypeDesignations()</a>  |
| java.lang.String                             | <a href="#">getNomenclaturalMicroReference()</a>   |
| ReferenceBase                                | <a href="#">getNomenclaturalReference()</a>  |
| java.lang.String[]                           | <a href="#">getProblems()</a>  |
| Rank   | <a href="#">getRank()</a>  |
| java.util.Set                                | <a href="#">getRelationsFromThisName()</a>   |
| java.util.Set                                | <a href="#">getRelationsToThisName()</a>   |

|                  |  |
|------------------|--|
| java.util.Set    | <a href="#">getSpecimenTypeDesignations()</a>  |
| java.util.Set    | <a href="#">getStatus()</a>  |
| java.util.Set    | <a href="#">getSynonyms()</a><br>Return a set of synonyms that use this name   |
| java.util.Set    | <a href="#">getTaxa()</a><br>Return a set of taxa that use this name   |
| java.lang.String | <a href="#">getYear()</a><br>returns year of according nomenclatural reference, null if nomenclatural reference does not exist |
| abstract boolean | <a href="#">isCodeCompliant()</a>  |
| boolean          | <a href="#">isGenus()</a>  |
| boolean          | <a href="#">isInfraGeneric()</a>   |
| boolean          | <a href="#">isInfraSpecific()</a>  |
| boolean          | <a href="#">isSpecies()</a>  |
| boolean          | <a href="#">isSupraGeneric()</a>   |
| boolean          | <a href="#">isSupraGeneric(<u>Rank</u> rank)</a>   |
| void             | <a href="#">removeNameRelationship(<u>NameRelationship</u> nameRelation)</a>   |
| void             | <a href="#">removeStatus(<u>NomenclaturalStatus</u> status)</a>  |
| void             | <a href="#">removeTypeDesignation(<u>NameTypeDesignation</u> typeDesignation)</a>  |
| void             | <a href="#">removeTypeDesignation(<u>SpecimenTypeDesignation</u> typeDesignation)</a>  |
| void             | <a href="#">setAppendedPhrase(java.lang.String appendedPhrase)</a>   |
| void             | <a href="#">setBasionym(<u>TaxonNameBase</u> basionym)</a>   |
| void             | <a href="#">setBasionym(<u>TaxonNameBase</u> basionym, java.lang.String ruleConsidered)</a>                                    |
| void             | <a href="#">setCacheStrategy(eu.etaxonomy.cdm.strategy.INameCacheStrategy cacheStrategy)</a>                                   |
| void             | <a href="#">setHasProblem(boolean hasProblem)</a>  |
| void             | <a href="#">setHomotypicalGroup(<u>HomotypicalGroup</u> newHomotypicalGroup)</a>   |
| void             | <a href="#">setNameCache(java.lang.String nameCache)</a>   |

|      |   |
|------|---|
| void | <a href="#">setNameTypeDesignations</a> (java.util.Set nameTypeDesignations)                  |
| void | <a href="#">setNomenclaturalMicroReference</a> (java.lang.String nomenclaturalMicroReference) |
| void | <a href="#">setNomenclaturalReference</a> (INomenclaturalReference nomenclaturalReference)    |
| void | <a href="#">setRank</a> (Rank rank)   |
| void | <a href="#">setStatus</a> (java.util.Set status)  |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Fields

(continued from last page)

## **nameTypeDesignations**

```
protected java.util.Set nameTypeDesignations
```

---

## **protectedNameCache**

```
protected boolean protectedNameCache
```

---

## **cacheStrategy**

```
protected eu.etaxonomy.cdm.strategy.INameCacheStrategy cacheStrategy
```

---

## **nameParser**

```
protected static eu.etaxonomy.cdm.strategy.ITaxonNameParser nameParser
```

## Constructors

### **TaxonNameBase**

```
public TaxonNameBase( )
```

---

### **TaxonNameBase**

```
public TaxonNameBase(Rank rank)
```

## Methods

### **generateNameCache**

```
protected java.lang.String generateNameCache( )
```

---

### **getNameCache**

```
public java.lang.String getNameCache( )
```

---

### **setNameCache**

```
public void setNameCache(java.lang.String nameCache)
```

## isCodeCompliant

```
public abstract boolean isCodeCompliant()
```

---

## getNameRelations

```
public java.util.Set getNameRelations()
```

---

## addRelationshipToName

```
public void addRelationshipToName(TaxonNameBase toName,  
        NameRelationshipType type,  
        java.lang.String ruleConsidered)
```

Add a name relationship to both names involved

**Parameters:**

rel

---

## addRelationshipFromName

```
public void addRelationshipFromName(TaxonNameBase fromName,  
        NameRelationshipType type,  
        java.lang.String ruleConsidered)
```

---

## addNameRelationship

```
protected void addNameRelationship(NameRelationship rel)
```

---

## removeNameRelationship

```
public void removeNameRelationship(NameRelationship nameRelation)
```

---

## getRelationsFromThisName

```
public java.util.Set getRelationsFromThisName()
```

---

## getRelationsToThisName

```
public java.util.Set getRelationsToThisName()
```

---

(continued from last page)

**getStatus**

```
public java.util.Set getStatus( )
```

---

**setStatus**

```
protected void setStatus(java.util.Set status)
```

---

**addStatus**

```
public void addstatus(NomenclaturalStatus status)
```

---

**removeStatus**

```
public void removeStatus(NomenclaturalStatus status)
```

---

**getBasionym**

```
public TaxonNameBase getBasionym( )
```

---

**setBasionym**

```
public void setBasionym(TaxonNameBase basionym)
```

---

**setBasionym**

```
public void setBasionym(TaxonNameBase basionym,  
                      java.lang.String ruleConsidered)
```

---

**getCacheStrategy**

```
public eu.etaxonomy.cdm.strategy.INameCacheStrategy getCacheStrategy( )
```

---

**setCacheStrategy**

```
public void setCacheStrategy(eu.etaxonomy.cdm.strategy.INameCacheStrategy  
                           cacheStrategy)
```

---

(continued from last page)

## getRank

```
public Rank getRank()
```

---

## setRank

```
public void setRank(Rank rank)
```

---

## getNomenclaturalReference

```
public ReferenceBase getNomenclaturalReference()
```

---

## setNomenclaturalReference

```
public void setNomenclaturalReference(INomenclaturalReference nomenclaturalReference)
```

---

## getAppendedPhrase

```
public java.lang.String getAppendedPhrase()
```

---

## setAppendedPhrase

```
public void setAppendedPhrase(java.lang.String appendedPhrase)
```

---

## getNomenclaturalMicroReference

```
public java.lang.String getNomenclaturalMicroReference()
```

---

## setNomenclaturalMicroReference

```
public void setNomenclaturalMicroReference(java.lang.String  
nomenclaturalMicroReference)
```

---

## getHasProblem

```
public boolean getHasProblem()
```

---

## setHasProblem

```
public void setHasProblem(boolean hasProblem)
```

(continued from last page)

---

## getNameTypeDesignations

```
public java.util.Set getNameTypeDesignations()
```

---

## setNameTypeDesignations

```
protected void setNameTypeDesignations(java.util.Set nameTypeDesignations)
```

---

## addTypeDesignation

```
public void addTypeDesignation(TaxonNameBase typeSpecies,  
    ReferenceBase citation,  
    java.lang.String citationMicroReference,  
    java.lang.String originalNameString,  
    boolean isRejectedType,  
    boolean isConservedType)
```

---

## addTypeDesignation

```
public void addTypeDesignation(Specimen typeSpecimen,  
    TypeDesignationStatus status,  
    ReferenceBase citation,  
    java.lang.String citationMicroReference,  
    java.lang.String originalNameString)
```

---

## removeTypeDesignation

```
public void removeTypeDesignation(NameTypeDesignation typeDesignation)
```

---

## removeTypeDesignation

```
public void removeTypeDesignation(SpecimenTypeDesignation typeDesignation)
```

---

## getHomotypicalGroup

```
public HomotypicalGroup getHomotypicalGroup()
```

---

## setHomotypicalGroup

```
public void setHomotypicalGroup(HomotypicalGroup newHomotypicalGroup)
```

---

**getCitation**

```
public StrictReferenceBase getCitation()
```

---

**getCitationString**

```
public java.lang.String getCitationString()
```

---

**getProblems**

```
public java.lang.String[] getProblems()
```

---

**getYear**

```
public java.lang.String getYear()
```

returns year of according nomenclatural reference, null if nomenclatural reference does not exist

---

**getTaxa**

```
public java.util.Set getTaxa()
```

Return a set of taxa that use this name

**Returns:**

---

**getSynonyms**

```
public java.util.Set getSynonyms()
```

Return a set of synonyms that use this name

**Returns:**

---

**getSpecimenTypeDesignations**

```
public java.util.Set getSpecimenTypeDesignations()
```

---

**isSupraGeneric**

```
public boolean isSupraGeneric()
```

---

**isGenus**

```
public boolean isGenus()
```

---

(continued from last page)

---

## **isInfraGeneric**

```
public boolean isInfraGeneric()
```

---

## **isSpecies**

```
public boolean isSpecies()
```

---

## **isInfraSpecific**

```
public boolean isInfraSpecific()
```

---

## **isSupraGeneric**

```
public boolean isSupraGeneric(Rank rank)
```

## eu.etaxonomy.cdm.model.name Class TypeDesignationStatus

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.name.TypeDesignationStatus

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **TypeDesignationStatus**  
extends [OrderedTermBase](#)

<http://rs.tdwg.org/ontology/voc/TaxonName#NomenculturalTypeTypeTerm>

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[orderIndex](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

## Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">TypeDesignationStatus(java.lang.String term, java.lang.String label)</a> |
|--------|--|

## Method Summary

|   |                           |
|---|---------------------------|
| static<br><a href="#">TypeDesignationStatus</a> | <a href="#">EPITYPE()</a> |
|---|---------------------------|

|   |                            |
|---|----------------------------|
| static<br><a href="#">TypeDesignationStatus</a> | <a href="#">HOLOTYPE()</a> |
|---|----------------------------|

|   |                             |
|---|-----------------------------|
| static<br><a href="#">TypeDesignationStatus</a> | <a href="#">ICONOTYPE()</a> |
|---|-----------------------------|

|   |                              |
|---|------------------------------|
| static<br><a href="#">TypeDesignationStatus</a> | <a href="#">ISOEPITYPE()</a> |
|---|------------------------------|

|   |                                |
|---|--------------------------------|
| static<br><a href="#">TypeDesignationStatus</a> | <a href="#">ISOLECTOTYPE()</a> |
|---|--------------------------------|

|   |                              |
|---|------------------------------|
| static<br><a href="#">TypeDesignationStatus</a> | <a href="#">ISONEOTYPE()</a> |
|---|------------------------------|

|   |   |
|---|---|
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">ISOTYPE()</a>               |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">LECTOTYPE()</a>             |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">NEOTYPE()</a>               |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">PARALECTOTYPE()</a>         |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">PARANEOTYPE()</a>           |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">PARATYPE()</a>              |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">PHOTOTYPE()</a>             |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">SECOND_STEP_LECTOTYPE()</a> |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">SECOND_STEP_NEOTYPE()</a>   |
| <code>static<br/>TypeDesignationStatus</code> | <a href="#">SYNTYPE()</a>               |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** eu.etaxonomy.cdm.model.common.IDefTerm

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** java.lang.Comparable

compareTo

## Constructors

### TypeDesignationStatus

```
public TypeDesignationStatus()
```

### TypeDesignationStatus

```
public TypeDesignationStatus(java.lang.String term,  
                             java.lang.String label)
```

## Methods

### HOLOTYPE

```
public final static TypeDesignationStatus HOLOTYPE()
```

### LECTOTYPE

```
public final static TypeDesignationStatus LECTOTYPE()
```

### NEOTYPE

```
public final static TypeDesignationStatus NEOTYPE()
```

### EPITYPE

```
public final static TypeDesignationStatus EPITYPE()
```

(continued from last page)

## **ISOLECTOTYPE**

```
public final static TypeDesignationStatus ISOLECTOTYPE()
```

---

## **ISONEOTYPE**

```
public final static TypeDesignationStatus ISONEOTYPE()
```

---

## **ISOTYPE**

```
public final static TypeDesignationStatus ISOTYPE()
```

---

## **PARANEOTYPE**

```
public final static TypeDesignationStatus PARANEOTYPE()
```

---

## **PARATYPE**

```
public final static TypeDesignationStatus PARATYPE()
```

---

## **SECOND\_STEP\_LECTOTYPE**

```
public final static TypeDesignationStatus SECOND_STEP_LECTOTYPE()
```

---

## **SECOND\_STEP\_NEOTYPE**

```
public final static TypeDesignationStatus SECOND_STEP_NEOTYPE()
```

---

## **SYNTYPE**

```
public final static TypeDesignationStatus SYNTYPE()
```

---

## **PARALECTOTYPE**

```
public final static TypeDesignationStatus PARALECTOTYPE()
```

---

## **ISOEPITYPE**

```
public final static TypeDesignationStatus ISOEPITYPE()
```

---

(continued from last page)

---

## ICONOTYPE

public final static TypeDesignationStatus **ICONOTYPE()**

---

## PHOTOTYPE

public final static TypeDesignationStatus **PHOTOTYPE()**

## eu.etaxonomy.cdm.model.name Class ViralName

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.name.TaxonNameBase
            +-eu.etaxonomy.cdm.model.name.ViralName

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IRelatedEntity](#)

public class **ViralName**  
extends [TaxonNameBase](#)

use name attribute for the entire virus name! examples see ICTVdb: [http://www.ncbi.nlm.nih.gov/ICTVdb/Ictv/vn\\_inxA.htm](http://www.ncbi.nlm.nih.gov/ICTVdb/Ictv/vn_inxA.htm)

#### Fields inherited from class [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[cacheStrategy](#), [nameParser](#), [nameTypeDesignations](#), [protectedNameCache](#)

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

|        |                                      |
|--------|--------------------------------------|
| public | <a href="#">ViralName(Rank rank)</a> |
|--------|--------------------------------------|

## Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                  |                              |
|------------------|------------------------------|
| java.lang.String | <a href="#">getAcronym()</a> |
|------------------|------------------------------|

|         |                                   |
|---------|-----------------------------------|
| boolean | <a href="#">isCodeCompliant()</a> |
|---------|-----------------------------------|

|      |  |
|------|--|
| void | <a href="#">setAcronym(java.lang.String acronym)</a> |
|------|--|

#### Methods inherited from class [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[addNameRelationship](#), [addRelationshipFromName](#), [addRelationshipToName](#), [addStatus](#), [addTypeDesignation](#), [addTypeDesignation](#), [generateNameCache](#), [getAppendedPhrase](#), [getBasionym](#), [getCacheStrategy](#), [getCitation](#), [getCitationString](#), [getHasProblem](#), [getHomotypicalGroup](#), [getNameCache](#), [getNameRelations](#), [getNameTypeDesignations](#), [getNomenclaturalMicroReference](#), [getNomenclaturalReference](#), [getProblems](#), [getRank](#), [getRelationsFromThisName](#), [getRelationsToThisName](#), [getSpecimenTypeDesignations](#), [getStatus](#), [getSynonyms](#), [getTaxa](#), [getYear](#), [isCodeCompliant](#), [isGenus](#), [isInfraGeneric](#), [isInfraSpecific](#), [isSpecies](#), [isSupraGeneric](#), [isSupraGeneric](#), [removeNameRelationship](#), [removeStatus](#), [removeTypeDesignation](#), [removeTypeDesignation](#), [setAppendedPhrase](#), [setBasionym](#), [setBasionym](#), [setCacheStrategy](#), [setHasProblem](#), [setHomotypicalGroup](#), [setNameCache](#), [setNameTypeDesignations](#), [setNomenclaturalMicroReference](#), [setNomenclaturalReference](#), [setRank](#), [setStatus](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IOriginalSource

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IReferencedEntity

[getCitation](#)

## Constructors

(continued from last page)

## ViralName

```
public ViralName(Rank rank)
```

## Methods

### getAcronym

```
public java.lang.String getAcronym()
```

---

### setAcronym

```
public void setAcronym(java.lang.String acronym)
```

---

### generateTitle

```
public java.lang.String generateTitle()
```

---

### isCodeCompliant

```
public boolean isCodeCompliant()
```

## eu.etaxonomy.cdm.model.name Class ZoologicalName

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.name.TaxonNameBase
            +-eu.etaxonomy.cdm.model.name.NonViralName
              +-eu.etaxonomy.cdm.model.name.ZoologicalName

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IReferedEntity](#)

---

**public class ZoologicalName**  
extends [NonViralName](#)

Taxon name class for animals

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.name.TaxonNameBase</a> |
|--|

[cacheStrategy](#), [nameParser](#), [nameTypeDesignations](#), [protectedNameCache](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

[annotations](#), [markers](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">ZoologicalName(Rank rank)</a>  |
| public | <a href="#">ZoologicalName(Rank rank, java.lang.String genusOrUninomial, java.lang.String specificEpithet, java.lang.String infraSpecificEpithet, <a href="#">Agent</a> combinationAuthorTeam, <a href="#">INomenclaturalReference</a> nomenclaturalReference, java.lang.String nomenclMicroRef)</a> |

### Method Summary

|                   |  |
|-------------------|--|
| java.lang.String  | <a href="#">getBreed()</a>                       |
| java.lang.Integer | <a href="#">getOriginalPublicationYear()</a>     |
| java.lang.Integer | <a href="#">getPublicationYear()</a>             |
| void              | <a href="#">setBreed(java.lang.String breed)</a> |

|      |  |
|------|--|
| void | <a href="#">setOriginalPublicationYear</a> (java.lang.Integer originalPublicationYear) |
| void | <a href="#">setPublicationYear</a> (java.lang.Integer publicationYear)                 |

**Methods inherited from class** [eu.etaxonomy.cdm.model.name.NonViralName](#)

[generateTitle](#), [getAuthorshipCache](#), [getBasionymAuthorTeam](#), [getCombinationAuthorTeam](#), [getExBasionymAuthorTeam](#), [getExCombinationAuthorTeam](#), [getGenusOrUninomial](#), [getInfraGenericEpithet](#), [getInfraSpecificEpithet](#), [getSpecificEpithet](#), [isCodeCompliant](#), [setAuthorshipCache](#), [setBasionymAuthorTeam](#), [setCombinationAuthorTeam](#), [setExBasionymAuthorTeam](#), [setExCombinationAuthorTeam](#), [setGenusOrUninomial](#), [setInfraGenericEpithet](#), [setInfraSpecificEpithet](#), [setSpecificEpithet](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.name.TaxonNameBase](#)

[addNameRelationship](#), [addRelationshipFromName](#), [addRelationshipToName](#), [addStatus](#), [addTypeDesignation](#), [addTypeDesignation](#), [generateNameCache](#), [getAppendedPhrase](#), [getBasionym](#), [getCacheStrategy](#), [getCitation](#), [getCitationString](#), [getHasProblem](#), [getHomotypalGroup](#), [getNameCache](#), [getNameRelations](#), [getNameTypeDesignations](#), [getNomenclaturalMicroReference](#), [getNomenclaturalReference](#), [getProblems](#), [getRank](#), [getRelationsFromThisName](#), [getRelationsToThisName](#), [getSpecimenTypeDesignations](#), [getStatus](#), [getSynonyms](#), [getTaxa](#), [getYear](#), [isCodeCompliant](#), [isGenus](#), [isInfraGeneric](#), [isInfraSpecific](#), [isSpecies](#), [isSupraGeneric](#), [isSupraGeneric](#), [removeNameRelationship](#), [removeStatus](#), [removeTypeDesignation](#), [removeTypeDesignation](#), [setAppendedPhrase](#), [setBasionym](#), [setBasionym](#), [setCacheStrategy](#), [setHasProblem](#), [setHomotypalGroup](#), [setNameCache](#), [setNameTypeDesignations](#), [setNomenclaturalMicroReference](#), [setNomenclaturalReference](#), [setRank](#), [setStatus](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

---

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

```
addSource, getSources, removeSource
```

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

```
getCitation
```

## Constructors

### ZoologicalName

```
public ZoologicalName(Rank rank)
```

### ZoologicalName

```
public ZoologicalName(Rank rank,
                      java.lang.String genusOrUninomial,
                      java.lang.String specificEpithet,
                      java.lang.String infraSpecificEpithet,
                      Agent combinationAuthorTeam,
                      INomenclaturalReference nomenclaturalReference,
                      java.lang.String nomenclMicroRef)
```

## Methods

### getBreed

```
public java.lang.String getBreed()
```

### setBreed

```
public void setBreed(java.lang.String breed)
```

### getPublicationYear

```
public java.lang.Integer getPublicationYear()
```

### setPublicationYear

```
public void setPublicationYear(java.lang.Integer publicationYear)
```

---

## **getOriginalPublicationYear**

```
public java.lang.Integer getOriginalPublicationYear()
```

---

## **setOriginalPublicationYear**

```
public void setOriginalPublicationYear(java.lang.Integer originalPublicationYear)
```

---

## Package

# eu.etaxonomy.cdm.model.occurrence

## Package: "occurrence"

Provides classes for specimens, collections and field observations.

## Related Documentation

- [TDWG Specimen LSID Ontology](#)
- [ABCD schema](#)

## UML Diagrams

### Occurrence

## eu.etaxonomy.cdm.model.occurrence Class Collection

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.occurrence.Collection

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginSource](#), [IMediaDocumented](#)

public class **Collection**  
extends [IdentifiableMediaEntity](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                             |  |
|-----------------------------|--|
| java.lang.String            | <a href="#">generateTitle()</a>                                |
| java.lang.String            | <a href="#">getCode()</a>                                      |
| java.lang.String            | <a href="#">getCodeStandard()</a>                              |
| <a href="#">Institution</a> | <a href="#">getInstitute()</a>                                 |
| java.lang.String            | <a href="#">getName()</a>                                      |
| <a href="#">Collection</a>  | <a href="#">getSuperCollection()</a>                           |
| java.lang.String            | <a href="#">getTownOrLocation()</a>                            |
| void                        | <a href="#">setCode(java.lang.String code)</a>                 |
| void                        | <a href="#">setCodeStandard(java.lang.String codeStandard)</a> |

|      |  |
|------|--|
| void | <a href="#">setInstitute(<i>Institution</i> institute)</a>         |
| void | <a href="#">setName(java.lang.String name)</a>                     |
| void | <a href="#">setSuperCollection(Collection superCollection)</a>     |
| void | <a href="#">setTownOrLocation(java.lang.String townOrLocation)</a> |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)[addSource](#), [getSources](#), [removeSource](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)[getMedia](#)

## Constructors

(continued from last page)

## Collection

```
public Collection()
```

## Methods

### getInstitute

```
public Institution getInstitute()
```

### setInstitute

```
public void setInstitute(Institution institute)
```

#### Parameters:

institute - institute

### getCode

```
public java.lang.String getCode()
```

### setCode

```
public void setCode(java.lang.String code)
```

#### Parameters:

code - code

### getCodeStandard

```
public java.lang.String getCodeStandard()
```

### setCodeStandard

```
public void setCodeStandard(java.lang.String codeStandard)
```

#### Parameters:

codeStandard - codeStandard

### getName

```
public java.lang.String getName()
```

(continued from last page)

---

**setName**

```
public void setName(java.lang.String name)
```

**Parameters:**

name - name

---

**getTownOrLocation**

```
public java.lang.String getTownOrLocation()
```

---

**setTownOrLocation**

```
public void setTownOrLocation(java.lang.String townOrLocation)
```

**Parameters:**

townOrLocation - townOrLocation

---

**generateTitle**

```
public java.lang.String generateTitle()
```

---

**getSuperCollection**

```
public Collection getSuperCollection()
```

---

**setSuperCollection**

```
public void setSuperCollection(Collection superCollection)
```

## eu.etaxonomy.cdm.model.occurrence Class DerivationEvent

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.EventBase
          +-eu.etaxonomy.cdm.model.occurrence.DerivationEvent
```

### All Implemented Interfaces:

java.io.Serializable, [IEvent](#)

public class **DerivationEvent**  
extends [EventBase](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                                     |  |
|-------------------------------------|--|
| void                                | <a href="#">addDerivative(DerivedUnit derivative)</a>              |
| void                                | <a href="#">addOriginal(SpecimenOrObservationBase original)</a>    |
| java.util.Set                       | <a href="#">getDerivatives()</a>                                   |
| java.util.Set                       | <a href="#">getOriginals()</a>                                     |
| <a href="#">DerivationEventType</a> | <a href="#">getType()</a>  |
| void                                | <a href="#">removeDerivative(DerivedUnit derivative)</a>           |
| void                                | <a href="#">removeOriginal(SpecimenOrObservationBase original)</a> |
| void                                | <a href="#">setDerivatives(java.util.Set derivatives)</a>          |
| void                                | <a href="#">setOriginals(java.util.Set originals)</a>              |
| void                                | <a href="#">setType(<a href="#">DerivationEventType</a> type)</a>  |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.EventBase](#)[getActor](#), [getDescription](#), [getTimeperiod](#), [setActor](#), [setDescription](#),  [setTimeperiod](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IEvent](#)[getActor](#), [getTimeperiod](#), [setActor](#),  [setTimeperiod](#)

## Constructors

### DerivationEvent

```
public DerivationEvent()
```

## Methods

### getOriginals

```
public java.util.Set getOriginals()
```

### setOriginals

```
protected void setOriginals(java.util.Set originals)
```

(continued from last page)

**addOriginal**

```
public void addOriginal(SpecimenOrObservationBase original)
```

---

**removeOriginal**

```
public void removeOriginal(SpecimenOrObservationBase original)
```

---

**getDerivatives**

```
public java.util.Set getDerivatives()
```

---

**setDerivatives**

```
protected void setDerivatives(java.util.Set derivatives)
```

---

**addDerivative**

```
public void addDerivative(DerivedUnit derivative)
```

---

**removeDerivative**

```
public void removeDerivative(DerivedUnit derivative)
```

---

**getType**

```
public DerivationEventType getType()
```

---

**setType**

```
public void setType(DerivationEventType type)
```

## eu.etaxonomy.cdm.model.occurrence Class DerivationEventType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.occurrence.DerivationEventType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

public class **DerivationEventType**

extends [DefinedTermBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">DerivationEventType()</a>  |
| public | <a href="#">DerivationEventType(java.lang.String term, java.lang.String label)</a> |

### Method Summary

|   |                                     |
|---|-------------------------------------|
| static<br><a href="#">DerivationEventType</a> | <a href="#">DNA_EXTRACTION()</a>    |
| static<br><a href="#">DerivationEventType</a> | <a href="#">DUPLICATE()</a>         |
| static<br><a href="#">DerivationEventType</a> | <a href="#">GATHERING_IN_SITU()</a> |
| static<br><a href="#">DerivationEventType</a> | <a href="#">TISSUE_SAMPLING()</a>   |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

---

[addRepresentation](#), [equals](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### DerivationEventType

public [DerivationEventType\(\)](#)

---

### DerivationEventType

public [DerivationEventType](#)(java.lang.String term,  
                           java.lang.String label)

## Methods

### DUPLICATE

public final static [DerivationEventType](#) [DUPLICATE\(\)](#)

---

### GATHERING\_IN\_SITU

public final static [DerivationEventType](#) [GATHERING\\_IN\\_SITU\(\)](#)

## **TISSUE\_SAMPLING**

```
public final static DerivationEventType TISSUE_SAMPLING()
```

---

## **DNA\_EXTRACTION**

```
public final static DerivationEventType DNA_EXTRACTION()
```

## eu.etaxonomy.cdm.model.occurance Class DerivedUnit

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.occurance.SpecimenOrObservationBase
              +-eu.etaxonomy.cdm.model.occurance.DerivedUnit

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

### Direct Known Subclasses:

[LivingBeing](#), [Observation](#), [Specimen](#)

public abstract class **DerivedUnit**

extends [SpecimenOrObservationBase](#)

<http://www.bgbm.org/biodivinf/docs/ColllectionModel/ReprintTNR.pdf> <http://www.bgbm.org/biodivinf/docs/ColllectionModel/>

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">DerivedUnit()</a>  |
| public | <a href="#">DerivedUnit(FieldObservation fieldObservation)</a><br>create new unit derived from an existing field observation   |
| public | <a href="#">DerivedUnit(GatheringEvent gatheringEvent)</a><br>create new unit derived from an existing gathering event, thereby creating a new empty field observation |

## Method Summary

|                                 |                                     |
|---------------------------------|-------------------------------------|
| java.lang.String                | <a href="#">getCatalogNumber()</a>  |
| <a href="#">Collection</a>      | <a href="#">getCollection()</a>     |
| <a href="#">DerivationEvent</a> | <a href="#">getDerivedFrom()</a>    |
| <a href="#">GatheringEvent</a>  | <a href="#">getGatheringEvent()</a> |

|                               |  |
|-------------------------------|--|
| java.util.Set                 | <a href="#">getOriginals()</a>                                   |
| <a href="#">TaxonNameBase</a> | <a href="#">getStoredUnder()</a>                                 |
| void                          | <a href="#">setCatalogNumber(java.lang.String catalogNumber)</a> |
| void                          | <a href="#">setCollection(Collection collection)</a>             |
| void                          | <a href="#">setDerivedFrom(DerivationEvent derivedFrom)</a>      |
| void                          | <a href="#">setStoredUnder(TaxonNameBase storedUnder)</a>        |

**Methods inherited from class** [eu.etaxonomy.cdm.model.occurance.SpecimenOrObservationBase](#)

[addDefinition](#), [addDefinition](#), [addDerivationEvent](#), [addDetermination](#), [generateTitle](#), [getDefinition](#), [getDerivationEvents](#), [getDeterminations](#), [getGatheringEvent](#), [getIndividualCount](#), [getLifeStage](#), [getOriginalUnit](#), [getSex](#), [removeDefinition](#), [removeDerivationEvent](#), [removeDetermination](#), [setDerivationEvents](#), [setDeterminations](#), [setIndividualCount](#), [setLifeStage](#), [setSex](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### DerivedUnit

public **DerivedUnit()**

### DerivedUnit

public **DerivedUnit([FieldObservation](#) fieldObservation)**

create new unit derived from an existing field observation

**Parameters:**

fieldObservation - existing field observation from where this unit is derived

### DerivedUnit

public **DerivedUnit([GatheringEvent](#) gatheringEvent)**

create new unit derived from an existing gathering event, thereby creating a new empty field observation

**Parameters:**

gatheringEvent - the gathering event this unit was collected at

## Methods

### getDerivedFrom

public [DerivationEvent](#) **getDerivedFrom()**

### setDerivedFrom

public void **setDerivedFrom([DerivationEvent](#) derivedFrom)**

### getOriginals

public java.util.Set **getOriginals()**

(continued from last page)

**getGatheringEvent**

```
public GatheringEvent getGatheringEvent()
```

**getCollection**

```
public Collection getCollection()
```

**setCollection**

```
public void setCollection(Collection collection)
```

**getCatalogNumber**

```
public java.lang.String getCatalogNumber()
```

**setCatalogNumber**

```
public void setCatalogNumber(java.lang.String catalogNumber)
```

**getStoreUnder**

```
public TaxonNameBase getStoreUnder()
```

**setStoreUnder**

```
public void setStoreUnder(TaxonNameBase storedUnder)
```

## eu.etaxonomy.cdm.model.occurrence Class DeterminationEvent

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.EventBase
          +-eu.etaxonomy.cdm.model.occurrence.DeterminationEvent
```

### All Implemented Interfaces:

java.io.Serializable, [IEvent](#)

public class **DeterminationEvent**

extends [EventBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|   |  |
|---|--|
| <a href="#">Agent</a>                     | <a href="#">getDeterminer()</a>  |
| <a href="#">java.util.Calendar</a>        | <a href="#">getIdentificationDate()</a>  |
| <a href="#">SpecimenOrObservationBase</a> | <a href="#">getIdentifiedUnit()</a>  |
| <a href="#">DeterminationModifier</a>     | <a href="#">getModifier()</a>  |
| <a href="#">Taxon</a>                     | <a href="#">getTaxon()</a>   |
| void                                      | <a href="#">setDeterminer(<a href="#">Agent</a> determiner)</a>                              |
| void                                      | <a href="#">setIdentificationDate(<a href="#">java.util.Calendar</a> identificationDate)</a> |
| void                                      | <a href="#">setIdentifiedUnit(<a href="#">SpecimenOrObservationBase</a> identifiedUnit)</a>  |
| void                                      | <a href="#">setModifier(<a href="#">DeterminationModifier</a> modifier)</a>                  |
| void                                      | <a href="#">setTaxon(<a href="#">Taxon</a> taxon)</a>  |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.EventBase](#)[getActor](#), [getDescription](#), [getTimeperiod](#), [setActor](#), [setDescription](#),  [setTimeperiod](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IEvent](#)[getActor](#), [getTimeperiod](#), [setActor](#),  [setTimeperiod](#)

## Constructors

### DeterminationEvent

```
public DeterminationEvent()
```

## Methods

### getModifier

```
public DeterminationModifier getModifier()
```

### setModifier

```
public void setModifier(DeterminationModifier modifier)
```

(continued from last page)

## getTaxon

```
public Taxon getTaxon()
```

---

## setTaxon

```
public void setTaxon(Taxon taxon)
```

### Parameters:

taxon - taxon

---

## getIdentificationDate

```
public java.util.Calendar getIdentificationDate()
```

---

## setIdentificationDate

```
public void setIdentificationDate(java.util.Calendar identificationDate)
```

### Parameters:

identificationDate - identificationDate

---

## getDeterminer

```
public Agent getDeterminer()
```

---

## setDeterminer

```
public void setDeterminer(Agent determiner)
```

---

## getIdentifiedUnit

```
public SpecimenOrObservationBase getIdentifiedUnit()
```

---

## setIdentifiedUnit

```
public void setIdentifiedUnit(SpecimenOrObservationBase identifiedUnit)
```

## eu.etaxonomy.cdm.model.occurrence Class DeterminationModifier

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.description.Modifier
              +-eu.etaxonomy.cdm.model.occurrence.DeterminationModifier

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

### public class DeterminationModifier

extends [Modifier](#)

modifier for a determination. can be cf. det. rev. conf. for example

#### Fields inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

[orderIndex](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |  |
|--------|--|
| public | <a href="#">DeterminationModifier(java.lang.String term, java.lang.String label)</a> |
|--------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.OrderedTermBase

|  |
|--|
| <a href="#">compareTo</a> , <a href="#">decreaseIndex</a> , <a href="#">equals</a> , <a href="#">incrementIndex</a> , <a href="#">isHigher</a> , <a href="#">isLower</a> , <a href="#">setVocabulary</a> |
|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

|  |
|--|
| <a href="#">addIncludes</a> , <a href="#">addMedia</a> , <a href="#">findByUuid</a> , <a href="#">getGeneralizationOf</a> , <a href="#">getIncludes</a> , <a href="#">getKindOf</a> ,<br><a href="#">getMedia</a> , <a href="#">getPartOf</a> , <a href="#">getPersistentVocabulary</a> , <a href="#">getVocabulary</a> , <a href="#">readCsvLine</a> ,<br><a href="#">readCsvLine</a> , <a href="#">removeIncludes</a> , <a href="#">removeMedia</a> , <a href="#">setGeneralizationOf</a> , <a href="#">setIncludes</a> ,<br><a href="#">setKindOf</a> , <a href="#">setMedia</a> , <a href="#">setPartOf</a> , <a href="#">setPersistentVocabulary</a> , <a href="#">setVocabulary</a> ,<br><a href="#">setVocabularyStore</a> , <a href="#">writeCsvLine</a> |
|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

```
addRepresentation, equals, getDescription, getLabel, getLabel,  

getRepresentation, getRepresentations, getUri, removeRepresentation,  

setRepresentations, setUri, toString
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

```
getNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom,  

getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy
```

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

**Methods inherited from interface** [java.lang.Comparable](#)

```
compareTo
```

## Constructors

### DeterminationModifier

```
public DeterminationModifier( )
```

### DeterminationModifier

```
public DeterminationModifier(java.lang.String term,  
                           java.lang.String label)
```

## eu.etaxonomy.cdm.model.occurrence Class FieldObservation

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase
              +-eu.etaxonomy.cdm.model.occurrence.FieldObservation

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

---

**public class FieldObservation**  
extends [SpecimenOrObservationBase](#)

In situ observation of a taxon in the field. If a specimen exists, in most cases a parallel field observation object should be instantiated and the specimen then is "derived" from the field unit

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

|                            |  |
|----------------------------|--|
| <b>Constructor Summary</b> |  |
|----------------------------|--|

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

|                       |  |
|-----------------------|--|
| <b>Method Summary</b> |  |
|-----------------------|--|

|                                |  |
|--------------------------------|--|
| java.lang.String               | <a href="#">getFieldNotes()</a>  |
| java.lang.String               | <a href="#">getFieldNumber()</a>   |
| <a href="#">GatheringEvent</a> | <a href="#">getGatheringEvent()</a>  |
| void                           | <a href="#">setFieldNotes(java.lang.String fieldNotes)</a>                       |
| void                           | <a href="#">setFieldNumber(java.lang.String fieldNumber)</a>                     |
| void                           | <a href="#">setGatheringEvent(<a href="#">GatheringEvent</a> gatheringEvent)</a> |

|   |
|---|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase</a> |
|---|

[addDefinition](#), [addDefinition](#), [addDerivationEvent](#), [addDetermination](#), [generateTitle](#), [getDefinition](#), [getDerivationEvents](#), [getDeterminations](#), [getGatheringEvent](#), [getIndividualCount](#), [getLifeStage](#), [getOriginalUnit](#), [getSex](#), [removeDefinition](#), [removeDerivationEvent](#), [removeDetermination](#), [setDerivationEvents](#), [setDeterminations](#), [setIndividualCount](#), [setLifeStage](#), [setSex](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IOriginalSource

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IMediaDocumented

[getMedia](#)

## Constructors

### FieldObservation

public [FieldObservation\(\)](#)

## Methods

### **getGatheringEvent**

```
public GatheringEvent getGatheringEvent()
```

---

### **setGatheringEvent**

```
public void setGatheringEvent(GatheringEvent gatheringEvent)
```

---

### **getFieldNumber**

```
public java.lang.String getFieldNumber()
```

---

### **setFieldNumber**

```
public void setFieldNumber(java.lang.String fieldNumber)
```

---

### **getFieldNotes**

```
public java.lang.String getFieldNotes()
```

---

### **setFieldNotes**

```
public void setFieldNotes(java.lang.String fieldNotes)
```

## eu.etaxonomy.cdm.model.occurance Class Fossil

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.occurance.SpecimenOrObservationBase
              +-eu.etaxonomy.cdm.model.occurance.DerivedUnit
                +-eu.etaxonomy.cdm.model.occurance.Specimen
                  +-eu.etaxonomy.cdm.model.occurance.Fossil

```

### All Implemented Interfaces:

[java.io.Serializable](#), [IOriginSource](#), [IMediaDocumented](#)

---

public class **Fossil**  
extends [Specimen](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

[annotations](#), [markers](#)

|                            |  |
|----------------------------|--|
| <b>Constructor Summary</b> |  |
|----------------------------|--|

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

|   |  |
|---|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.occurance.Specimen</a> |  |
|---|--|

[getPreservation](#), [setPreservation](#)

|  |  |
|--|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.occurance.DerivedUnit</a> |  |
|--|--|

[getCatalogNumber](#), [getCollection](#), [getDerivedFrom](#), [getGatheringEvent](#), [getOriginals](#),  
[getStoreUnder](#), [setCatalogNumber](#), [setCollection](#), [setDerivedFrom](#), [setStoreUnder](#)

|  |  |
|--|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.occurance.SpecimenOrObservationBase</a> |  |
|--|--|

[addDefinition](#), [addDefinition](#), [addDerivationEvent](#), [addDetermination](#), [generateTitle](#),  
[getDefinition](#), [getDerivationEvents](#), [getDeterminations](#), [getGatheringEvent](#),  
[getIndividualCount](#), [getLifeStage](#), [getOriginalUnit](#), [getSex](#), [removeDefinition](#),  
[removeDerivationEvent](#), [removeDetermination](#), [setDerivationEvents](#), [setDeterminations](#),  
[setIndividualCount](#), [setLifeStage](#), [setSex](#)

|   |  |
|---|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity</a> |  |
|---|--|

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Fossil

public **Fossil()**

## eu.etaxonomy.cdm.model.occurrence Class GatheringEvent

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.EventBase
          +-eu.etaxonomy.cdm.model.occurrence.GatheringEvent
```

### All Implemented Interfaces:

java.io.Serializable, [IEvent](#)

public class **GatheringEvent**

extends [EventBase](#)

The event when gathering a specimen or recording a field observation only

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                           |  |
|---------------------------|--|
| java.lang.Integer         | <a href="#">getAbsoluteElevation()</a>                             |
| java.lang.Integer         | <a href="#">getAbsoluteElevationError()</a>                        |
| <a href="#">NamedArea</a> | <a href="#">getCollectingArea()</a>                                |
| java.lang.String          | <a href="#">getCollectingMethod()</a>                              |
| <a href="#">Agent</a>     | <a href="#">getCollector()</a>                                     |
| java.lang.Integer         | <a href="#">getDistanceToGround()</a>                              |
| java.lang.Integer         | <a href="#">getDistanceToWaterSurface()</a>                        |
| <a href="#">Point</a>     | <a href="#">getExactLocation()</a>                                 |
| java.util.Calendar        | <a href="#">getGatheringDate()</a><br>EventBase managed attributes |

|                  |   |
|------------------|---|
| java.lang.String | <a href="#">getLocality()</a>   |
| void             | <a href="#">setAbsoluteElevation(java.lang.Integer absoluteElevation)</a>           |
| void             | <a href="#">setAbsoluteElevationError(java.lang.Integer absoluteElevationError)</a> |
| void             | <a href="#">setCollectingArea(NamedArea area)</a>                                   |
| void             | <a href="#">setCollectingMethod(java.lang.String collectingMethod)</a>              |
| void             | <a href="#">setCollector(Agent collector)</a>                                       |
| void             | <a href="#">setDistanceToGround(java.lang.Integer distanceToGround)</a>             |
| void             | <a href="#">setDistanceToWaterSurface(java.lang.Integer distanceToWaterSurface)</a> |
| void             | <a href="#">setExactLocation(Point exactLocation)</a>                               |
| void             | <a href="#">setGatheringDate(java.util.Calendar gatheringDate)</a>                  |
| void             | <a href="#">setLocality(java.lang.String locality)</a>                              |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.EventBase](#)[getActor](#), [getDescription](#), [getTimeperiod](#), [setActor](#), [setDescription](#),  [setTimeperiod](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IEvent](#)[getActor](#), [getTimeperiod](#), [setActor](#),  [setTimeperiod](#)

## Constructors

### GatheringEvent

```
public GatheringEvent()
```

## Methods

### getExactLocation

```
public Point getExactLocation()
```

---

### setExactLocation

```
public void setExactLocation(Point exactLocation)
```

---

### getCollectingArea

```
public NamedArea getCollectingArea()
```

---

### setCollectingArea

```
public void setCollectingArea(NamedArea area)
```

---

### getLocality

```
public java.lang.String getLocality()
```

---

### setLocality

```
public void setLocality(java.lang.String locality)
```

---

### getGatheringDate

```
public java.util.Calendar getGatheringDate()
```

EventBase managed attributes

**Returns:**

**setGatheringDate**

```
public void setGatheringDate(java.util.Calendar gatheringDate)
```

---

**getCollector**

```
public Agent getCollector()
```

---

**setCollector**

```
public void setCollector(Agent collector)
```

---

**getCollectingMethod**

```
public java.lang.String getCollectingMethod()
```

---

**setCollectingMethod**

```
public void setCollectingMethod(java.lang.String collectingMethod)
```

---

**getAbsoluteElevation**

```
public java.lang.Integer getAbsoluteElevation()
```

---

**setAbsoluteElevation**

```
public void setAbsoluteElevation(java.lang.Integer absoluteElevation)
```

---

**getAbsoluteElevationError**

```
public java.lang.Integer getAbsoluteElevationError()
```

---

**setAbsoluteElevationError**

```
public void setAbsoluteElevationError(java.lang.Integer absoluteElevationError)
```

---

**getDistanceToGround**

```
public java.lang.Integer getDistanceToGround()
```

---

(continued from last page)

---

### **setDistanceToGround**

```
public void setDistanceToGround(java.lang.Integer distanceToGround)
```

---

### **getDistanceToWaterSurface**

```
public java.lang.Integer getDistanceToWaterSurface( )
```

---

### **setDistanceToWaterSurface**

```
public void setDistanceToWaterSurface(java.lang.Integer distanceToWaterSurface)
```

## eu.etaxonomy.cdm.model.occurrence Class LivingBeing

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase
              +-eu.etaxonomy.cdm.model.occurrence.DerivedUnit
                +-eu.etaxonomy.cdm.model.occurrence.LivingBeing
  
```

### All Implemented Interfaces:

java.io.Serializable, [IOriginSource](#), [IMediaDocumented](#)

public class **LivingBeing**

extends [DerivedUnit](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

#### Constructor Summary

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

#### Methods inherited from class eu.etaxonomy.cdm.model.occurrence.DerivedUnit

[getCatalogNumber](#), [getCollection](#), [getDerivedFrom](#), [getGatheringEvent](#), [getOriginals](#),  
[getStoredUnder](#), [setCatalogNumber](#), [setCollection](#), [setDerivedFrom](#), [setStoredUnder](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase

[addDefinition](#), [addDefinition](#), [addDerivationEvent](#), [addDetermination](#), [generateTitle](#),  
[getDefinition](#), [getDerivationEvents](#), [getDeterminations](#), [getGatheringEvent](#),  
[getIndividualCount](#), [getLifeStage](#), [getOriginalUnit](#), [getSex](#), [removeDefinition](#),  
[removeDerivationEvent](#), [removeDetermination](#), [setDerivationEvents](#), [setDeterminations](#),  
[setIndividualCount](#), [setLifeStage](#), [setSex](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### LivingBeing

`public LivingBeing()`

# eu.etaxonomy.cdm.model.observation Class Observation

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.observation.SpecimenOrObservationBase
              +-eu.etaxonomy.cdm.model.observation.DerivedUnit
                +-eu.etaxonomy.cdm.model.observation.Observation
  
```

## All Implemented Interfaces:

java.io.Serializable, [IOriginSource](#), [IMediaDocumented](#)

**public class Observation**

extends [DerivedUnit](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Methods inherited from class eu.etaxonomy.cdm.model.observation.DerivedUnit

[getCatalogNumber](#), [getCollection](#), [getDerivedFrom](#), [getGatheringEvent](#), [getOriginals](#),  
[getStoredUnder](#), [setCatalogNumber](#), [setCollection](#), [setDerivedFrom](#), [setStoredUnder](#)

### Methods inherited from class eu.etaxonomy.cdm.model.observation.SpecimenOrObservationBase

[addDefinition](#), [addDefinition](#), [addDerivationEvent](#), [addDetermination](#), [generateTitle](#),  
[getDefinition](#), [getDerivationEvents](#), [getDeterminations](#), [getGatheringEvent](#),  
[getIndividualCount](#), [getLifeStage](#), [getOriginalUnit](#), [getSex](#), [removeDefinition](#),  
[removeDerivationEvent](#), [removeDetermination](#), [setDerivationEvents](#), [setDeterminations](#),  
[setIndividualCount](#), [setLifeStage](#), [setSex](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Observation

```
public Observation()
```

## eu.etaxonomy.cdm.model.occurrence Class PreservationMethod

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.occurrence.PreservationMethod
```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

**public class PreservationMethod**

**extends** [DefinedTermBase](#)

<http://rs.tdwg.org/ontology/voc/Collection.rdf#SpecimenPreservationMethodTypeTerm>

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">PreservationMethod</a> (java.lang.String term, java.lang.String label) |
|--------|--|

#### Methods inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.TermBase

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  
setId, setUuid, toString
```

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IDefTerm

```
getVocabulary, readCsvLine, setVocabulary, writeCsvLine
```

## Constructors

### PreservationMethod

```
public PreservationMethod(java.lang.String term,  
                          java.lang.String label)
```

# eu.etaxonomy.cdm.model.occurrence Class Specimen

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase
              +-eu.etaxonomy.cdm.model.occurrence.DerivedUnit
                +-eu.etaxonomy.cdm.model.occurrence.Specimen

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

## Direct Known Subclasses:

[Fossil](#), [DnaSample](#)

public class Specimen

extends [DerivedUnit](#)

A specimen is regarded as derived from an field observation, so locality and gathering related information is captured as a separate FieldObservation object related to a specimen via a derivation event

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                                    |                                   |
|------------------------------------|-----------------------------------|
| <a href="#">PreservationMethod</a> | <a href="#">getPreservation()</a> |
|------------------------------------|-----------------------------------|

|      |  |
|------|--|
| void | <a href="#">setPreservation(<a href="#">PreservationMethod</a> preservation)</a> |
|------|--|

### Methods inherited from class eu.etaxonomy.cdm.model.occurrence.DerivedUnit

|   |
|---|
| <a href="#">getCatalogNumber</a> , <a href="#">getCollection</a> , <a href="#">getDerivedFrom</a> , <a href="#">getGatheringEvent</a> , <a href="#">getOriginals</a> ,<br><a href="#">getStoredUnder</a> , <a href="#">setCatalogNumber</a> , <a href="#">setCollection</a> , <a href="#">setDerivedFrom</a> , <a href="#">setStoredUnder</a> |
|---|

### Methods inherited from class eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase

[addDefinition](#), [addDefinition](#), [addDerivationEvent](#), [addDetermination](#), [generateTitle](#), [getDefinition](#), [getDerivationEvents](#), [getDeterminations](#), [getGatheringEvent](#), [getIndividualCount](#), [getLifeStage](#), [getOriginalUnit](#), [getSex](#), [removeDefinition](#), [removeDerivationEvent](#), [removeDetermination](#), [setDerivationEvents](#), [setDeterminations](#), [setIndividualCount](#), [setLifeStage](#), [setSex](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IOriginalSource

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IMediaDocumented

[getMedia](#)

## Constructors

### Specimen

public Specimen()

## Methods

### getPreservation

```
public PreservationMethod getPreservation()
```

---

### setPreservation

```
public void setPreservation(PreservationMethod preservation)
```

# eu.etaxonomy.cdm.model.occurrence Class SpecimenOrObservationBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.occurrence.SpecimenOrObservationBase

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

## Direct Known Subclasses:

[DerivedUnit](#), [FieldObservation](#)

public abstract class **SpecimenOrObservationBase**

extends [IdentifiableMediaEntity](#)

type figures are observations with at least a figure object in media

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

## Constructor Summary

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

## Method Summary

|                                  |   |
|----------------------------------|---|
| void                             | <a href="#">addDefinition(LanguageString description)</a>           |
| void                             | <a href="#">addDefinition(java.lang.String text, Language lang)</a> |
| void                             | <a href="#">addDerivationEvent(DerivationEvent event)</a>           |
| void                             | <a href="#">addDetermination(DeterminationEvent determination)</a>  |
| java.lang.String                 | <a href="#">generateTitle()</a>                                     |
| <a href="#">MultilanguageSet</a> | <a href="#">getDefinition()</a>                                     |
| java.util.Set                    | <a href="#">getDerivationEvents()</a>                               |
| java.util.Set                    | <a href="#">getDeterminations()</a>                                 |

|   |                       |  |
|---|-----------------------|--|
| <u>abstract</u>                             | <u>GatheringEvent</u> | <u>getGatheringEvent()</u>   |
| <u>java.lang.Integer</u>                    |                       | <u>getIndividualCount()</u>  |
| <u>Stage</u>                                |                       | <u>getLifeStage()</u>  |
| <u>SpecimenOrObservation</u><br><u>Base</u> |                       | <u>getOriginalUnit()</u><br>for derived units get the single next higher parental/original unit. |
| <u>Sex</u>                                  |                       | <u>getSex()</u>  |
| <u>void</u>                                 |                       | <u>removeDefinition(Language lang)</u>   |
| <u>void</u>                                 |                       | <u>removeDerivationEvent(DerivationEvent event)</u>  |
| <u>void</u>                                 |                       | <u>removeDetermination(DeterminationEvent determination)</u>                                     |
| <u>void</u>                                 |                       | <u>setDerivationEvents(java.util.Set derivationEvents)</u>                                       |
| <u>void</u>                                 |                       | <u>setDeterminations(java.util.Set determinations)</u>   |
| <u>void</u>                                 |                       | <u>setIndividualCount(java.lang.Integer individualCount)</u>                                     |
| <u>void</u>                                 |                       | <u>setLifeStage(Stage lifeStage)</u>   |
| <u>void</u>                                 |                       | <u>setSex(Sex sex)</u>   |

**Methods inherited from class** eu.etaxonomy.cdm.model.common.IdentifiableMediaEntityaddMedia, getMedia, removeMedia, setMedia**Methods inherited from class** eu.etaxonomy.cdm.model.common.IdentifiableEntityaddExtension, addRights, addSource, generateTitle, getExtensions, getLsid, getRights, getSources, getTitleCache, isProtectedTitleCache, removeExtension, removeRights, removeSource, setExtensions, setLsid, setProtectedTitleCache, setRights, setSources, setTitleCache, setTitleCache**Methods inherited from class** eu.etaxonomy.cdm.model.common.AnnotatableEntityaddAnnotations, addMarker, getAnnotations, getMarkers, removeAnnotations, removeMarker, setAnnotations, setMarkers**Methods inherited from class** eu.etaxonomy.cdm.model.common.VersionableEntitygetNextVersion, getPreviousVersion, getUpdated, getUpdatedBy, getValidFrom, getValidTo, setNextVersion, setPreviousVersion, setUpdated, setUpdatedBy**Methods inherited from class** eu.etaxonomy.cdm.model.common.CdmBase

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### SpecimenOrObservationBase

public [SpecimenOrObservationBase](#)( )

## Methods

### getDerivationEvents

public java.util.Set [getDerivationEvents](#)( )

### setDerivationEvents

protected void [setDerivationEvents](#)(java.util.Set derivationEvents)

### addDerivationEvent

public void [addDerivationEvent](#)([DerivationEvent](#) event)

### removeDerivationEvent

public void [removeDerivationEvent](#)([DerivationEvent](#) event)

(continued from last page)

## getDeterminations

```
public java.util.Set getDeterminations()
```

---

## setDeterminations

```
protected void setDeterminations(java.util.Set determinations)
```

---

## addDetermination

```
public void addDetermination(DeterminationEvent determination)
```

---

## removeDetermination

```
public void removeDetermination(DeterminationEvent determination)
```

---

## getSex

```
public Sex getSex()
```

---

## setSex

```
public void setSex(Sex sex)
```

---

## getLifeStage

```
public Stage getLifeStage()
```

---

## setLifeStage

```
public void setLifeStage(Stage lifeStage)
```

---

## generateTitle

```
public java.lang.String generateTitle()
```

---

## getIndividualCount

```
public java.lang.Integer getIndividualCount()
```

(continued from last page)

---

**setIndividualCount**

```
public void setIndividualCount(java.lang.Integer individualCount)
```

---

**getDefinition**

```
public MultilanguageSet getDefinition()
```

---

**addDefinition**

```
public void addDefinition(LanguageString description)
```

---

**addDefinition**

```
public void addDefinition(java.lang.String text,  
    Language lang)
```

---

**removeDefinition**

```
public void removeDefinition(Language lang)
```

---

**getOriginalUnit**

```
public SpecimenOrObservationBase getOriginalUnit()
```

for derived units get the single next higher parental/original unit. If multiple original units exist throw error

**Returns:**

---

**getGatheringEvent**

```
public abstract GatheringEvent getGatheringEvent()
```

---

---

# Package **eu.etaxonomy.cdm.model.reference**

## Package: "reference"

Provides classes for nomenclatural and bibliographical references

- either as a complex structure of specific subclasses according to the different kind of possible references used (see StrictReferenceBase class and subclasses)
- or as a flat structure (see BibTexReference class)

## Related Documentation

- [TDWG PublicationCitation LSID Ontology](#)
- [TCS schema](#)
- [BibTex](#)

## UML Diagrams

### Reference base

### Reference types

### BibTex

# eu.etaxonomy.cdm.model.reference Class Article

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.Article

```

## All Implemented Interfaces:

[INomenclaturalReference](#), [java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

```

public class Article
extends StrictReferenceBase
implements IMediaDocumented, IOriginalSource, java.io.Serializable, INomenclaturalReference

```

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                         |  |
|-------------------------|--|
| java.lang.String        | <a href="#">generateTitle()</a>  |
| java.lang.String        | <a href="#">getCitation()</a><br>returns a formatted string containing the entire reference citation including authors                               |
| <a href="#">Journal</a> | <a href="#">getInJournal()</a>   |
| java.lang.String        | <a href="#">getNomenclaturalCitation()</a><br>returns a formatted string containing the reference citation excluding authors as used in a taxon name |
| java.lang.String        | <a href="#">getPages()</a>   |
| java.lang.String        | <a href="#">getSeries()</a>  |
| java.lang.String        | <a href="#">getVolume()</a>  |

|      |  |
|------|--|
| void | <a href="#">setInJournal(Journal inJournal)</a>    |
| void | <a href="#">setPages(java.lang.String pages)</a>   |
| void | <a href="#">setSeries(java.lang.String series)</a> |
| void | <a href="#">setVolume(java.lang.String volume)</a> |

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)[addSource](#), [getSources](#), [removeSource](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.reference.INomenclaturalReference](#)

[getNomenclaturalCitation](#), [getYear](#)

## Constructors

### Article

```
public Article()
```

## Methods

### getInJournal

```
public Journal getInJournal()
```

### setInJournal

```
public void setInJournal(Journal inJournal)
```

### getSeries

```
public java.lang.String getSeries()
```

### setSeries

```
public void setSeries(java.lang.String series)
```

#### Parameters:

series - series

### getVolume

```
public java.lang.String getVolume()
```

### setVolume

```
public void setVolume(java.lang.String volume)
```

(continued from last page)

**Parameters:**

volume - volume

---

**getPages**public java.lang.String **getPages()**

---

**setPages**public void **setPages**(java.lang.String pages)**Parameters:**

pages - pages

---

**getCitation**public java.lang.String **getCitation()**

returns a formatted string containing the entire reference citation including authors

---

**getNomenclaturalCitation**public java.lang.String **getNomenclaturalCitation()**

returns a formatted string containing the reference citation excluding authors as used in a taxon name

---

**generateTitle**public java.lang.String **generateTitle()**

## eu.etaxonomy.cdm.model.reference Class BibtexEntryType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.reference.BibtexEntryType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#)

### public class BibtexEntryType

extends [DefinedTermBase](#)

Bibtex bibliography entries are split by types

#### Fields inherited from class eu.etaxonomy.cdm.model.common.DefinedTermBase

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |  |
|--------|--|
| public | <a href="#">BibtexEntryType()</a>  |
| public | <a href="#">BibtexEntryType(java.lang.String term, java.lang.String label)</a> |

### Method Summary

|   |   |
|---|---|
| static<br><a href="#">BibtexEntryType</a> | <a href="#">ARTICLE()</a><br>An article from a journal or magazine.   |
| static<br><a href="#">BibtexEntryType</a> | <a href="#">BOOK()</a><br>A book with an explicit publisher.  |
| static<br><a href="#">BibtexEntryType</a> | <a href="#">BOOKLET()</a><br>A work that is printed and bound, but without a named publisher or sponsoring institution. |
| static<br><a href="#">BibtexEntryType</a> | <a href="#">CONFERENCE()</a><br>The same as inproceedings.  |
| static<br><a href="#">BibtexEntryType</a> | <a href="#">INBOOK()</a><br>A part of a book, which may be a chapter (or section or whatever) and/or a range of pages.  |
| static<br><a href="#">BibtexEntryType</a> | <a href="#">INCOLLECTION()</a><br>A part of a book having its own title.  |
| static<br><a href="#">BibtexEntryType</a> | <a href="#">INPROCEEDINGS()</a><br>An article in a conference proceedings.  |

|                               |   |
|-------------------------------|---|
| <u>static BibtexEntryType</u> | <u><a href="#">MANUAL()</a></u><br>Technical documentation.   |
| <u>static BibtexEntryType</u> | <u><a href="#">MASTERTHESIS()</a></u><br>A Master's thesis.   |
| <u>static BibtexEntryType</u> | <u><a href="#">MISC()</a></u><br>For use when nothing else fits.  |
| <u>static BibtexEntryType</u> | <u><a href="#">PHDTHESIS()</a></u><br>A Ph.D.   |
| <u>static BibtexEntryType</u> | <u><a href="#">PROCEEDINGS()</a></u><br>The proceedings of a conference.  |
| <u>static BibtexEntryType</u> | <u><a href="#">TECHREPORT()</a></u><br>A report published by a school or other institution, usually numbered within a series. |
| <u>static BibtexEntryType</u> | <u><a href="#">UNPUBLISHED()</a></u><br>A document having an author and title, but not formally published.                    |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#), [getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#), [readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#), [setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#), [setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#), [getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#), [setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

## Constructors

### BibtexEntryType

```
public BibtexEntryType()
```

### BibtexEntryType

```
public BibtexEntryType(java.lang.String term,  
                      java.lang.String label)
```

## Methods

### ARTICLE

```
public final static BibtexEntryType ARTICLE\(\)
```

An article from a journal or magazine. Required fields: author, title, journal, year Optional fields: volume, number, pages, month, note

### BOOK

```
public final static BibtexEntryType BOOK\(\)
```

A book with an explicit publisher. Required fields: author/editor, title, publisher, year Optional fields: volume, series, address, edition, month, note

### BOOKLET

```
public final static BibtexEntryType BOOKLET\(\)
```

A work that is printed and bound, but without a named publisher or sponsoring institution. Required fields: title Optional fields: author, howpublished, address, month, year, note

### INBOOK

```
public final static BibtexEntryType INBOOK\(\)
```

A part of a book, which may be a chapter (or section or whatever) and/or a range of pages. Required fields: author/editor, title, chapter/pages, publisher, year Optional fields: volume, series, address, edition, month, note

### INCOLLECTION

```
public final static BibtexEntryType INCOLLECTION\(\)
```

A part of a book having its own title. Required fields: author, title, booktitle, year Optional fields: editor, pages, organization, publisher, address, month, note

### PROCEEDINGS

```
public final static BibtexEntryType PROCEEDINGS\(\)
```

The proceedings of a conference. Required fields: title, year Optional fields: editor, publisher, organization, address, month, note

---

## INPROCEEDINGS

```
public final static BibtexEntryType INPROCEEDINGS()
```

An article in a conference proceedings. Required fields: author, title, booktitle, year Optional fields: editor, pages, organization, publisher, address, month, note

---

## CONFERENCE

```
public final static BibtexEntryType CONFERENCE()
```

The same as inproceedings. Required fields: author, title, booktitle, year Optional fields: editor, pages, organization, publisher, address, month, note

---

## MANUAL

```
public final static BibtexEntryType MANUAL()
```

Technical documentation. Required fields: title Optional fields: author, organization, address, edition, month, year, note

---

## MASTERTHESIS

```
public final static BibtexEntryType MASTERTHESIS()
```

A Master's thesis. Required fields: author, title, school, year Optional fields: address, month, note

---

## PHDTHESIS

```
public final static BibtexEntryType PHDTHESIS()
```

A Ph.D. thesis. Required fields: author, title, school, year Optional fields: address, month, note

---

## TECHREPORT

```
public final static BibtexEntryType TECHREPORT()
```

A report published by a school or other institution, usually numbered within a series. Required fields: author, title, institution, year Optional fields: type, number, address, month, note

---

## UNPUBLISHED

```
public final static BibtexEntryType UNPUBLISHED()
```

A document having an author and title, but not formally published. Required fields: author, title, note Optional fields: month, year

---

## MISC

```
public final static BibtexEntryType MISC()
```

For use when nothing else fits. Required fields: none Optional fields: author, title, howpublished, month, year, note

## eu.etaxonomy.cdm.model.reference Class BibtexReference

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.BibtexReference

```

### All Implemented Interfaces:

[INomenclaturalReference](#), [java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

---

```

public class BibtexReference
extends ReferenceBase
implements IMediaDocumented, IOriginalSource, java.io.Serializable, INomenclaturalReference

```

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                                 |  |
|---------------------------------|--|
| java.lang.String                | <a href="#">generateTitle()</a>  |
| java.lang.String                | <a href="#">getAddress()</a>   |
| java.lang.String                | <a href="#">getAnnote()</a>  |
| java.lang.String                | <a href="#">getBooktitle()</a>   |
| java.lang.String                | <a href="#">getChapter()</a>   |
| java.lang.String                | <a href="#">getCitation()</a><br>returns a formatted string containing the entire reference citation including authors |
| <a href="#">BibtexReference</a> | <a href="#">getCrossref()</a>  |
| java.lang.String                | <a href="#">getEdition()</a>   |

|  |   |
|--|---|
| java.lang.String                       | <a href="#"><u>getEditor()</u></a>  |
| java.lang.String                       | <a href="#"><u>getEprint()</u></a>  |
| java.lang.String                       | <a href="#"><u>getHowpublished()</u></a>  |
| java.lang.String                       | <a href="#"><u>getInstitution()</u></a>   |
| java.lang.String                       | <a href="#"><u>getJournal()</u></a>   |
| java.lang.String                       | <a href="#"><u>getMonth()</u></a>   |
| java.lang.String                       | <a href="#"><u>getNomenclaturalCitation()</u></a><br>returns a formatted string containing the reference citation excluding authors as used in a taxon name |
| java.lang.String                       | <a href="#"><u>getNote()</u></a>  |
| java.lang.String                       | <a href="#"><u>getNumber()</u></a>  |
| java.lang.String                       | <a href="#"><u>getOrganization()</u></a>  |
| java.lang.String                       | <a href="#"><u>getPages()</u></a>   |
| java.lang.String                       | <a href="#"><u>getPublisher()</u></a>   |
| java.lang.String                       | <a href="#"><u>getReportType()</u></a>  |
| java.lang.String                       | <a href="#"><u>getSchool()</u></a>  |
| java.lang.String                       | <a href="#"><u>getSeries()</u></a>  |
| java.lang.String                       | <a href="#"><u>getTitle()</u></a>   |
| <a href="#"><u>BibtexEntryType</u></a> | <a href="#"><u>getType()</u></a>  |
| java.lang.String                       | <a href="#"><u>getVolume()</u></a>  |
| java.lang.String                       | <a href="#"><u>getYear()</u></a>  |
| void                                   | <a href="#"><u>setAddress</u>(java.lang.String address)</a>   |
| void                                   | <a href="#"><u>setAnnote</u>(java.lang.String annote)</a>   |
| void                                   | <a href="#"><u>setBooktitle</u>(java.lang.String booktitle)</a>   |
| void                                   | <a href="#"><u>setChapter</u>(java.lang.String chapter)</a>   |
| void                                   | <a href="#"><u>setCrossref</u>(<a href="#"><u>BibtexReference</u></a> crossref)</a>   |

|      |   |
|------|---|
| void | <a href="#"><u>setEdition</u></a> (java.lang.String edition)                  |
| void | <a href="#"><u>setEditor</u></a> (java.lang.String editor)                    |
| void | <a href="#"><u>setEprint</u></a> (java.lang.String eprint)                    |
| void | <a href="#"><u>setHowpublished</u></a> (java.lang.String howpublished)        |
| void | <a href="#"><u>setInstitution</u></a> (java.lang.String institution)          |
| void | <a href="#"><u>setJournal</u></a> (java.lang.String journal)                  |
| void | <a href="#"><u>setMonth</u></a> (java.lang.String month)                      |
| void | <a href="#"><u>setNote</u></a> (java.lang.String note)                        |
| void | <a href="#"><u>setNumber</u></a> (java.lang.String number)                    |
| void | <a href="#"><u>setOrganization</u></a> (java.lang.String organization)        |
| void | <a href="#"><u>setPages</u></a> (java.lang.String pages)                      |
| void | <a href="#"><u>setPublisher</u></a> (java.lang.String publisher)              |
| void | <a href="#"><u>setReportType</u></a> (java.lang.String type)                  |
| void | <a href="#"><u>setSchool</u></a> (java.lang.String school)                    |
| void | <a href="#"><u>setSeries</u></a> (java.lang.String series)                    |
| void | <a href="#"><u>setTitle</u></a> (java.lang.String title)                      |
| void | <a href="#"><u>setType</u></a> ( <a href="#"><u>BibtexEntryType</u></a> type) |
| void | <a href="#"><u>setVolume</u></a> (java.lang.String volume)                    |
| void | <a href="#"><u>setYear</u></a> (java.lang.String year)                        |

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.reference.INomenclaturalReference](#)

[getNomenclaturalCitation](#), [getYear](#)

## Constructors

### BibtexReference

```
public BibtexReference()
```

## Methods

### getCrossref

```
public BibtexReference getCrossref()
```

**setCrossref**

```
public void setCrossref(BibtexReference crossref)
```

---

**getJournal**

```
public java.lang.String getJournal()
```

---

**setJournal**

```
public void setJournal(java.lang.String journal)
```

**Parameters:**

journal - journal

---

**getBooktitle**

```
public java.lang.String getBooktitle()
```

---

**setBooktitle**

```
public void setBooktitle(java.lang.String booktitle)
```

**Parameters:**

booktitle - booktitle

---

**getChapter**

```
public java.lang.String getChapter()
```

---

**setChapter**

```
public void setChapter(java.lang.String chapter)
```

**Parameters:**

chapter - chapter

---

**getTitle**

```
public java.lang.String getTitle()
```

---

## setTitle

```
public void setTitle(java.lang.String title)
```

### Parameters:

title - title

---

## getSeries

```
public java.lang.String getSeries()
```

---

## setSeries

```
public void setSeries(java.lang.String series)
```

### Parameters:

series - series

---

## getEdition

```
public java.lang.String getEdition()
```

---

## setEdition

```
public void setEdition(java.lang.String edition)
```

### Parameters:

edition - edition

---

## getVolume

```
public java.lang.String getVolume()
```

---

## setVolume

```
public void setVolume(java.lang.String volume)
```

### Parameters:

volume - volume

---

## getNumber

```
public java.lang.String getNumber()
```

---

(continued from last page)

---

## **setNumber**

```
public void setNumber(java.lang.String number)
```

### **Parameters:**

number - number

---

## **getPages**

```
public java.lang.String getPages()
```

---

## **setPages**

```
public void setPages(java.lang.String pages)
```

### **Parameters:**

pages - pages

---

## **getAnnote**

```
public java.lang.String getAnnote()
```

---

## **setAnnote**

```
public void setAnnote(java.lang.String annote)
```

### **Parameters:**

annote - annote

---

## **getEditor**

```
public java.lang.String getEditor()
```

---

## **setEditor**

```
public void setEditor(java.lang.String editor)
```

### **Parameters:**

editor - editor

---

---

(continued from last page)

## getInstitution

```
public java.lang.String getInstitution()
```

---

## setInstitution

```
public void setInstitution(java.lang.String institution)
```

### Parameters:

institution - institution

---

## getSchool

```
public java.lang.String getSchool()
```

---

## setSchool

```
public void setschool(java.lang.String school)
```

### Parameters:

school - school

---

## getOrganization

```
public java.lang.String getOrganization()
```

---

## setOrganization

```
public void setOrganization(java.lang.String organization)
```

### Parameters:

organization - organization

---

## getPublisher

```
public java.lang.String getPublisher()
```

---

## setPublisher

```
public void setPublisher(java.lang.String publisher)
```

### Parameters:

(continued from last page)

publisher - publisher

---

## getAddress

```
public java.lang.String getAddress()
```

---

## setAddress

```
public void setAddress(java.lang.String address)
```

### Parameters:

address - address

---

## getHowpublished

```
public java.lang.String getHowpublished()
```

---

## setHowpublished

```
public void setHowpublished(java.lang.String howpublished)
```

### Parameters:

howpublished - howpublished

---

## getReportType

```
public java.lang.String getReportType()
```

---

## setReportType

```
public void setReportType(java.lang.String type)
```

### Parameters:

type - type

---

## getMonth

```
public java.lang.String getMonth()
```

---

## setMonth

```
public void setMonth(java.lang.String month)
```

---

---

(continued from last page)

**Parameters:**

month - month

---

**getYear**

```
public java.lang.String getYear()
```

---

**setYear**

```
public void setYear(java.lang.String year)
```

**Parameters:**

year - year

---

**getEprint**

```
public java.lang.String getEprint()
```

---

**setEprint**

```
public void setEprint(java.lang.String eprint)
```

**Parameters:**

eprint - eprint

---

**getNote**

```
public java.lang.String getNote()
```

---

**setNote**

```
public void setNote(java.lang.String note)
```

**Parameters:**

note - note

---

**getCitation**

```
public java.lang.String getCitation()
```

returns a formatted string containing the entire reference citation including authors

---

**getNomenclaturalCitation**

```
public java.lang.String getNomenclaturalCitation()
```

---

(continued from last page)

returns a formatted string containing the reference citation excluding authors as used in a taxon name

---

## **generateTitle**

```
public java.lang.String generateTitle()
```

---

## **getType**

```
public BibtexEntryType getType()
```

---

## **setType**

```
public void setType(BibtexEntryType type)
```

# eu.etaxonomy.cdm.model.reference Class Book

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.PrintedUnitBase
                    +-eu.etaxonomy.cdm.model.reference.Book

```

## All Implemented Interfaces:

[INomenclaturalReference](#), [java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

---

public class **Book**  
 extends [PrintedUnitBase](#)  
 implements [IMediaDocumented](#), [IOriginalSource](#), [java.io.Serializable](#), [INomenclaturalReference](#)

---

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

---

|                            |  |
|----------------------------|--|
| <b>Constructor Summary</b> |  |
|----------------------------|--|

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

---

|                       |  |
|-----------------------|--|
| <b>Method Summary</b> |  |
|-----------------------|--|

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">generateTitle()</a>  |
| java.lang.String | <a href="#">getCitation()</a><br>returns a formatted string containing the entire reference citation including authors |
| java.lang.String | <a href="#">getEdition()</a>   |
| java.lang.String | <a href="#">getIsbn()</a>  |
| java.lang.String | <a href="#">getNomenclaturalCitation()</a>   |
| void             | <a href="#">setEdition(java.lang.String edition)</a>   |

|      |  |
|------|--|
| void | <a href="#">setIsbn(java.lang.String isbn)</a> |
|------|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.PrintedUnitBase](#)

[getEditor](#), [getInSeries](#), [getPages](#), [getVolume](#), [setEditor](#), [setInSeries](#), [setPages](#), [setVolume](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.PublicationBase](#)

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#), [setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)[getMedia](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.reference.INomenclaturalReference](#)[getNomenclaturalCitation](#), [getYear](#)

## Constructors

### Book

```
public Book()
```

## Methods

### getEdition

```
public java.lang.String getEdition()
```

---

### setEdition

```
public void setEdition(java.lang.String edition)
```

---

### getIsbn

```
public java.lang.String getIsbn()
```

---

### setIsbn

```
public void setIsbn(java.lang.String isbn)
```

---

### getCitation

```
public java.lang.String getCitation()
```

returns a formatted string containing the entire reference citation including authors

---

### getNomenclaturalCitation

```
public java.lang.String getNomenclaturalCitation()
```

(continued from last page)

## **generateTitle**

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class BookSection

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.SectionBase
                  +-eu.etaxonomy.cdm.model.reference.BookSection

```

## All Implemented Interfaces:

[INomenclaturalReference](#), [java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

---

public class **BookSection**  
 extends [SectionBase](#)  
 implements [IMediaDocumented](#), [IOriginalSource](#), [java.io.Serializable](#), [INomenclaturalReference](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

[annotations](#), [markers](#)

|                            |  |
|----------------------------|--|
| <b>Constructor Summary</b> |  |
|----------------------------|--|

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

|                       |  |
|-----------------------|--|
| <b>Method Summary</b> |  |
|-----------------------|--|

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getCitation()</a><br>returns a formatted string containing the entire reference citation including authors |
|------------------|--|

|                      |                             |
|----------------------|-----------------------------|
| <a href="#">Book</a> | <a href="#">getInBook()</a> |
|----------------------|-----------------------------|

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getNomenclaturalCitation()</a><br>returns a formatted string containing the reference citation excluding authors as used in a taxon name |
|------------------|--|

|      |  |
|------|--|
| void | <a href="#">setInBook(<a href="#">Book</a> inBook)</a> |
|------|--|

|  |
|--|
| <b>Methods inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.reference.SectionBase</a> |
|--|

|  |
|--|
| <a href="#">getPages</a> , <a href="#">getPrintedUnit</a> , <a href="#">setPages</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#), [setDatePublished](#), [setTitle](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)[addSource](#), [getSources](#), [removeSource](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)[getMedia](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.reference.INomenclaturalReference](#)[getNomenclaturalCitation](#), [getYear](#)

(continued from last page)

## Constructors

### BookSection

```
public BookSection()
```

## Methods

### getInBook

```
public Book getInBook()
```

---

### setInBook

```
public void setInBook(Book inBook)
```

#### Parameters:

inBook - inBook

---

### getCitation

```
public java.lang.String getCitation()
```

returns a formatted string containing the entire reference citation including authors

---

### getNomenclaturalCitation

```
public java.lang.String getNomenclaturalCitation()
```

returns a formatted string containing the reference citation excluding authors as used in a taxon name

---

### generateTitle

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference

## Class CdDvd

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.CdDvd

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **CdDvd**  
extends [PublicationBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.PublicationBase

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### CdDvd

public [CdDvd\(\)](#)

## Methods

### generateTitle

public java.lang.String [generateTitle\(\)](#)

# eu.etaxonomy.cdm.model.reference Class ConferenceProceedings

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.ConferenceProceedings

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **ConferenceProceedings**  
extends [StrictReferenceBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

|  |
|--|
| <a href="#">getCitation</a> , <a href="#">getDatePublished</a> , <a href="#">getTitle</a> , <a href="#">getYear</a> , <a href="#"> setDatePublished</a> , <a href="#">setTitle</a> |
|--|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

|   |
|---|
| <a href="#">getAuthorTeam</a> , <a href="#">getCitation</a> , <a href="#">getUri</a> , <a href="#">getYear</a> , <a href="#">isNomenclaturallyRelevant</a> ,<br><a href="#">setAuthorTeam</a> , <a href="#">setNomenclaturallyRelevant</a> , <a href="#">setUri</a> |
|---|

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

|  |
|--|
| <a href="#">addMedia</a> , <a href="#">getMedia</a> , <a href="#">removeMedia</a> , <a href="#">setMedia</a> |
|--|

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etworking.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etworking.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etworking.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etworking.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etworking.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### ConferenceProceedings

```
public ConferenceProceedings()
```

## Methods

### generateTitle

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class Database

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.Database

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **Database**  
extends [PublicationBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.PublicationBase

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IOriginalSource

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IMediaDocumented

[getMedia](#)

## Constructors

### Database

```
public Database()
```

## Methods

### generateTitle

```
public java.lang.String generateTitle()
```

## eu.etaxonomy.cdm.model.reference Class Generic

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.Generic

```

### All Implemented Interfaces:

[INomenclaturalReference](#), [java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

```

public class Generic
extends StrictReferenceBase
implements IMediaDocumented, IOriginalSource, java.io.Serializable, INomenclaturalReference

```

This class is to represent all references which cannot be clearly assigned to a specific reference type. Therefore attributes which are only used by a unique reference type are not necessary here.

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

### Constructor Summary

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

### Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">generateTitle()</a>  |
| java.lang.String | <a href="#">getCitation()</a><br>returns a formatted string containing the entire reference citation including authors                               |
| java.lang.String | <a href="#">getEditor()</a>  |
| java.lang.String | <a href="#">getNomenclaturalCitation()</a><br>returns a formatted string containing the reference citation excluding authors as used in a taxon name |
| java.lang.String | <a href="#">getPages()</a>   |
| java.lang.String | <a href="#">getPlacePublished()</a>  |

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getPublisher()</a>                                     |
| java.lang.String | <a href="#">getSeries()</a>  |
| java.lang.String | <a href="#">getVolume()</a>  |
| void             | <a href="#">setEditor(java.lang.String editor)</a>                 |
| void             | <a href="#">setPages(java.lang.String pages)</a>                   |
| void             | <a href="#">setPlacePublished(java.lang.String placePublished)</a> |
| void             | <a href="#">setPublisher(java.lang.String publisher)</a>           |
| void             | <a href="#">setSeries(java.lang.String series)</a>                 |
| void             | <a href="#">setVolume(java.lang.String volume)</a>                 |

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.reference.INomenclaturalReference](#)

[getNomenclaturalCitation](#), [getYear](#)

## Constructors

### Generic

public **Generic**( )

## Methods

### getPublisher

public java.lang.String **getPublisher**( )

### setPublisher

public void **setPublisher**(java.lang.String publisher)

**Parameters:**

publisher - publisher

### getPlacePublished

public java.lang.String **getPlacePublished**( )

(continued from last page)

## setPlacePublished

```
public void setPlacePublished(java.lang.String placePublished)
```

### Parameters:

placePublished - placePublished

## getEditor

```
public java.lang.String getEditor()
```

## setEditor

```
public void setEditor(java.lang.String editor)
```

### Parameters:

editor - editor

## getSeries

```
public java.lang.String getSeries()
```

## setSeries

```
public void setSeries(java.lang.String series)
```

### Parameters:

series - series

## getVolume

```
public java.lang.String getVolume()
```

## setVolume

```
public void setVolume(java.lang.String volume)
```

### Parameters:

volume - volume

## getPages

```
public java.lang.String getPages()
```

(continued from last page)

---

## **setPages**

```
public void setPages(java.lang.String pages)
```

---

### **Parameters:**

pages - pages

---

## **getCitation**

```
public java.lang.String getCitation()
```

returns a formatted string containing the entire reference citation including authors

---

## **getNomenclaturalCitation**

```
public java.lang.String getNomenclaturalCitation()
```

returns a formatted string containing the reference citation excluding authors as used in a taxon name

---

## **generateTitle**

```
public java.lang.String generateTitle()
```

## eu.etaxonomy.cdm.model.reference Interface INomenclaturalReference

All Known Implementing Classes:

[Article](#), [BibtexReference](#), [Book](#), [BookSection](#), [Generic](#)

---

public interface **INomenclaturalReference**

extends

### Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getNomenclaturalCitation()</a>   |
|                  | returns a formatted string containing the reference citation excluding authors as used in a taxon name |
| java.lang.String | <a href="#">getYear()</a>  |

### Methods

#### **getNomenclaturalCitation**

public java.lang.String **getNomenclaturalCitation()**

returns a formatted string containing the reference citation excluding authors as used in a taxon name

---

#### **getYear**

public java.lang.String **getYear()**

## eu.etaxonomy.cdm.model.reference Class InProceedings

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.SectionBase
                  +-eu.etaxonomy.cdm.model.reference.InProceedings

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **InProceedings**

extends [SectionBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                             |                                    |
|-----------------------------|------------------------------------|
| <a href="#">Proceedings</a> | <a href="#">getInProceedings()</a> |
|-----------------------------|------------------------------------|

|      |   |
|------|---|
| void | <a href="#">setInProceedings(<a href="#">Proceedings</a> inProceedings)</a> |
|------|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.SectionBase](#)

[getPages](#), [getPrintedUnit](#), [setPages](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### InProceedings

public [InProceedings\(\)](#)

## Methods

---

(continued from last page)

## getInProceedings

```
public Proceedings getInProceedings( )
```

---

## setInProceedings

```
public void setInProceedings(Proceedings inProceedings)
```

### Parameters:

inProceedings - inProceedings

---

## generateTitle

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class Journal

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.Journal

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **Journal**  
extends [PublicationBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                  |                           |
|------------------|---------------------------|
| java.lang.String | <a href="#">getIssn()</a> |
|------------------|---------------------------|

|      |  |
|------|--|
| void | <a href="#">setIssn(java.lang.String issn)</a> |
|------|--|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.PublicationBase

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Journal

public [Journal\(\)](#)

## Methods

(continued from last page)

## **getIssn**

```
public java.lang.String getIssn()
```

---

## **setIssn**

```
public void setIssn(java.lang.String issn)
```

### **Parameters:**

issn - issn

---

## **generateTitle**

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class Map

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.Map

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class Map  
extends [PublicationBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.PublicationBase

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.VersionableEntity

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.common.CdmBase

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IOriginalSource

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface eu.etaxonomy.cdm.model.common.IMediaDocumented

[getMedia](#)

## Constructors

### Map

public [Map\(\)](#)

## Methods

### generateTitle

public java.lang.String [generateTitle\(\)](#)

# eu.etaxonomy.cdm.model.reference Class Patent

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.Patent

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **Patent**

extends [StrictReferenceBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

|   |
|---|
| <a href="#">getCitation</a> , <a href="#">getDatePublished</a> , <a href="#">getTitle</a> , <a href="#">getYear</a> , <a href="#">setDatePublished</a> , <a href="#">setTitle</a> |
|---|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

|   |
|---|
| <a href="#">getAuthorTeam</a> , <a href="#">getCitation</a> , <a href="#">getUri</a> , <a href="#">getYear</a> , <a href="#">isNomenclaturallyRelevant</a> ,<br><a href="#">setAuthorTeam</a> , <a href="#">setNomenclaturallyRelevant</a> , <a href="#">setUri</a> |
|---|

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

|  |
|--|
| <a href="#">addMedia</a> , <a href="#">getMedia</a> , <a href="#">removeMedia</a> , <a href="#">setMedia</a> |
|--|

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etworking.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etworking.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etworking.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etworking.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etworking.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Patent

```
public Patent()
```

## Methods

### generateTitle

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class PersonalCommunication

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PersonalCommunication

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **PersonalCommunication**  
extends [StrictReferenceBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

|  |
|--|
| <a href="#">getCitation</a> , <a href="#">getDatePublished</a> , <a href="#">getTitle</a> , <a href="#">getYear</a> , <a href="#"> setDatePublished</a> , <a href="#">setTitle</a> |
|--|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

|   |
|---|
| <a href="#">getAuthorTeam</a> , <a href="#">getCitation</a> , <a href="#">getUri</a> , <a href="#">getYear</a> , <a href="#">isNomenclaturallyRelevant</a> ,<br><a href="#">setAuthorTeam</a> , <a href="#">setNomenclaturallyRelevant</a> , <a href="#">setUri</a> |
|---|

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity

|  |
|--|
| <a href="#">addMedia</a> , <a href="#">getMedia</a> , <a href="#">removeMedia</a> , <a href="#">setMedia</a> |
|--|

### Methods inherited from class eu.etaxonomy.cdm.model.common.IdentifiableEntity

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### PersonalCommunication

```
public PersonalCommunication()
```

## Methods

### generateTitle

```
public java.lang.String generateTitle()
```

## eu.etaxonomy.cdm.model.reference Class PrintedUnitBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.PrintedUnitBase

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

### Direct Known Subclasses:

[Book](#), [Proceedings](#)

public abstract class **PrintedUnitBase**

extends [PublicationBase](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                             |   |
|-----------------------------|---|
| java.lang.String            | <a href="#">getEditor()</a>                                       |
| <a href="#">PrintSeries</a> | <a href="#">getInSeries()</a>                                     |
| java.lang.String            | <a href="#">getPages()</a>  |
| java.lang.String            | <a href="#">getVolume()</a>                                       |
| void                        | <a href="#">setEditor(java.lang.String editor)</a>                |
| void                        | <a href="#">setInSeries(<a href="#">PrintSeries</a> inSeries)</a> |

|      |   |
|------|---|
| void | <a href="#">setPages</a> (java.lang.String pages) |
|------|---|

|      |   |
|------|---|
| void | <a href="#">setVolume</a> (java.lang.String volume) |
|------|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.PublicationBase](#)

|   |
|---|
| <a href="#">getPlacePublished</a> , <a href="#">getPublisher</a> , <a href="#">setPlacePublished</a> , <a href="#">setPublisher</a> |
|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)

|  |
|--|
| <a href="#">getCitation</a> , <a href="#">getDatePublished</a> , <a href="#">getTitle</a> , <a href="#">getYear</a> , <a href="#"> setDatePublished</a> , <a href="#">setTitle</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

|   |
|---|
| <a href="#">getAuthorTeam</a> , <a href="#">getCitation</a> , <a href="#">getUri</a> , <a href="#">getYear</a> , <a href="#">isNomenclaturallyRelevant</a> ,<br><a href="#">setAuthorTeam</a> , <a href="#">setNomenclaturallyRelevant</a> , <a href="#">setUri</a> |
|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

|  |
|--|
| <a href="#">addMedia</a> , <a href="#">getMedia</a> , <a href="#">removeMedia</a> , <a href="#">setMedia</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

|  |
|--|
| <a href="#">addExtension</a> , <a href="#">addRights</a> , <a href="#">addSource</a> , <a href="#">generateTitle</a> , <a href="#">getExtensions</a> , <a href="#">getLsid</a> , <a href="#">getRights</a> ,<br><a href="#">getSources</a> , <a href="#">getTitleCache</a> , <a href="#">isProtectedTitleCache</a> , <a href="#">removeExtension</a> , <a href="#">removeRights</a> ,<br><a href="#">removeSource</a> , <a href="#">setExtensions</a> , <a href="#">setLsid</a> , <a href="#">setProtectedTitleCache</a> , <a href="#">setRights</a> , <a href="#">setSources</a> ,<br><a href="#">setTitleCache</a> , <a href="#">setTitleCache</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

|  |
|--|
| <a href="#">addAnnotations</a> , <a href="#">addMarker</a> , <a href="#">getAnnotations</a> , <a href="#">getMarkers</a> , <a href="#">removeAnnotations</a> ,<br><a href="#">removeMarker</a> , <a href="#">setAnnotations</a> , <a href="#">setMarkers</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

|  |
|--|
| <a href="#">getNextVersion</a> , <a href="#">getPreviousVersion</a> , <a href="#">getUpdated</a> , <a href="#">getUpdatedBy</a> , <a href="#">getValidFrom</a> ,<br><a href="#">getValidTo</a> , <a href="#">setNextVersion</a> , <a href="#">setPreviousVersion</a> , <a href="#">setUpdated</a> , <a href="#">setUpdatedBy</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

|  |
|--|
| <a href="#">addPropertyChangeListener</a> , <a href="#">addPropertyChangeListener</a> , <a href="#">equals</a> , <a href="#">firePropertyChange</a> ,<br><a href="#">firePropertyChange</a> , <a href="#">firePropertyChange</a> , <a href="#">firePropertyChange</a> , <a href="#">firePropertyChange</a> ,<br><a href="#">firePropertyChange</a> , <a href="#">getCreated</a> , <a href="#">getCreatedBy</a> , <a href="#">getId</a> , <a href="#">getUuid</a> , <a href="#">hasListeners</a> ,<br><a href="#">removePropertyChangeListener</a> , <a href="#">removePropertyChangeListener</a> , <a href="#">setCreated</a> , <a href="#">setCreatedBy</a> ,<br><a href="#">setId</a> , <a href="#">setUuid</a> , <a href="#">toString</a> |
|--|

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

|   |
|---|
| <a href="#">clone</a> , <a href="#">equals</a> , <a href="#">finalize</a> , <a href="#">getClass</a> , <a href="#">hashCode</a> , <a href="#">notify</a> , <a href="#">notifyAll</a> , <a href="#">toString</a> , <a href="#">wait</a> , <a href="#">wait</a> ,<br><a href="#">wait</a> |
|---|

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

|   |
|---|
| <a href="#">addSource</a> , <a href="#">getSources</a> , <a href="#">removeSource</a> |
|---|

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

```
getMedia
```

## Constructors

### PrintedUnitBase

```
public PrintedUnitBase()
```

## Methods

### getInSeries

```
public PrintSeries getInSeries()
```

### setInSeries

```
public void setInSeries(PrintSeries inSeries)
```

#### Parameters:

inSeries - inSeries

### getEditor

```
public java.lang.String getEditor()
```

### setEditor

```
public void setEditor(java.lang.String editor)
```

#### Parameters:

editor - editor

### getVolume

```
public java.lang.String getVolume()
```

### setVolume

```
public void setVolume(java.lang.String volume)
```

#### Parameters:

(continued from last page)

volume - volume

---

## getPages

```
public java.lang.String getPages()
```

---

## setPages

```
public void setPages(java.lang.String pages)
```

### Parameters:

pages - pages

## eu.etaxonomy.cdm.model.reference Class PrintSeries

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.PrintSeries

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **PrintSeries**  
extends [PublicationBase](#)

#### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">generateTitle()</a>                    |
| java.lang.String | <a href="#">getSeries()</a>                        |
| void             | <a href="#">setSeries(java.lang.String series)</a> |

#### Methods inherited from class eu.etaxonomy.cdm.model.reference.PublicationBase

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

#### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### PrintSeries

`public PrintSeries()`

## Methods

(continued from last page)

## **getSeries**

```
public java.lang.String getSeries()
```

---

## **setSeries**

```
public void setSeries(java.lang.String series)
```

### **Parameters:**

series - series

---

## **generateTitle**

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class Proceedings

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.PrintedUnitBase
                    +-eu.etaxonomy.cdm.model.reference.Proceedings

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

**public class Proceedings**  
extends [PrintedUnitBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">generateTitle()</a>                                |
| java.lang.String | <a href="#">getOrganization()</a>                              |
| void             | <a href="#">setOrganization(java.lang.String organization)</a> |

### Methods inherited from class eu.etaxonomy.cdm.model.reference.PrintedUnitBase

[getEditor](#), [getInSeries](#), [getPages](#), [getVolume](#), [setEditor](#), [setInSeries](#), [setPages](#), [setVolume](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.PublicationBase

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#), [setDatePublished](#), [setTitle](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)[addSource](#), [getSources](#), [removeSource](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)[getMedia](#)

## Constructors

(continued from last page)

## Proceedings

```
public Proceedings()
```

### Methods

#### getOrganization

```
public java.lang.String getOrganization()
```

---

#### setOrganization

```
public void setOrganization(java.lang.String organization)
```

---

#### generateTitle

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class PublicationBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase

```

## All Implemented Interfaces:

[java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

## Direct Known Subclasses:

[CdDvd](#), [Database](#), [Journal](#), [Map](#), [PrintedUnitBase](#), [PrintSeries](#), [Report](#), [Thesis](#), [WebPage](#)

public abstract class **PublicationBase**

extends [StrictReferenceBase](#)

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getPlacePublished()</a>                                |
| java.lang.String | <a href="#">getPublisher()</a>                                     |
| void             | <a href="#">setPlacePublished(java.lang.String placePublished)</a> |
| void             | <a href="#">setPublisher(java.lang.String publisher)</a>           |

### Methods inherited from class [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### PublicationBase

```
public PublicationBase()
```

## Methods

(continued from last page)

## **getPublisher**

```
public java.lang.String getPublisher()
```

---

## **setPublisher**

```
public void setPublisher(java.lang.String publisher)
```

---

## **getPlacePublished**

```
public java.lang.String getPlacePublished()
```

---

## **setPlacePublished**

```
public void setPlacePublished(java.lang.String placePublished)
```

## eu.etaxonomy.cdm.model.reference Class ReferenceBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

### Direct Known Subclasses:

[BibTexReference](#), [StrictReferenceBase](#)

public abstract class **ReferenceBase**

extends [IdentifiableMediaEntity](#)

A year() method is required to get the year of publication out of the datePublished field

|   |
|---|
| Fields inherited from class <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|---|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

### Constructor Summary

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

### Method Summary

|                              |  |
|------------------------------|--|
| <a href="#">Agent</a>        | <a href="#">getAuthorTeam()</a>  |
| java.lang.String             | <a href="#">getCitation()</a><br>returns a formatted string containing the entire reference citation including authors |
| java.lang.String             | <a href="#">getUri()</a>   |
| abstract<br>java.lang.String | <a href="#">getYear()</a>  |
| boolean                      | <a href="#">isNomenclaturallyRelevant()</a>  |
| void                         | <a href="#">setAuthorTeam(<a href="#">Agent</a> authorTeam)</a>  |
| void                         | <a href="#">setNomenclaturallyRelevant(boolean isNomenclaturallyRelevant)</a>  |

|      |   |
|------|---|
| void | <a href="#">setUri</a> (java.lang.String uri) |
|------|---|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### ReferenceBase

public **ReferenceBase**()

## Methods

(continued from last page)

## getAuthorTeam

```
public Agent getAuthorTeam()
```

---

## setAuthorTeam

```
public void setAuthorTeam(Agent authorTeam)
```

---

## getUri

```
public java.lang.String getUri()
```

---

## setUri

```
public void setUri(java.lang.String uri)
```

---

## isNomenclaturallyRelevant

```
public boolean isNomenclaturallyRelevant()
```

---

## setNomenclaturallyRelevant

```
public void setNomenclaturallyRelevant(boolean isNomenclaturallyRelevant)
```

**Parameters:**

isNomenclaturallyRelevant - isNomenclaturallyRelevant

---

## getCitation

```
public java.lang.String getCitation()
```

returns a formatted string containing the entire reference citation including authors

---

## getYear

```
public abstract java.lang.String getYear()
```

# eu.etaxonomy.cdm.model.reference Class Report

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.Report

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **Report**  
extends [PublicationBase](#)

publisher is "institution" in BibTex ???

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                             |                                  |
|-----------------------------|----------------------------------|
| <a href="#">Institution</a> | <a href="#">getInstitution()</a> |
|-----------------------------|----------------------------------|

|      |   |
|------|---|
| void | <a href="#">setInstitution(<a href="#">Institution</a> institution)</a> |
|------|---|

### Methods inherited from class [eu.etaxonomy.cdm.model.reference.PublicationBase](#)

|   |
|---|
| <a href="#">getPlacePublished</a> , <a href="#">getPublisher</a> , <a href="#">setPlacePublished</a> , <a href="#">setPublisher</a> |
|---|

### Methods inherited from class [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)

|  |
|--|
| <a href="#">getCitation</a> , <a href="#">getDatePublished</a> , <a href="#">getTitle</a> , <a href="#">getYear</a> , <a href="#"> setDatePublished</a> , <a href="#">setTitle</a> |
|--|

### Methods inherited from class [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Report

```
public Report()
```

## Methods

(continued from last page)

## **getInstitution**

```
public Institution getInstitution()
```

---

## **setInstitution**

```
public void setInstitution(Institution institution)
```

---

## **generateTitle**

```
public java.lang.String generateTitle()
```

# eu.etaxonomy.cdm.model.reference Class SectionBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.SectionBase

```

## All Implemented Interfaces:

[java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

## Direct Known Subclasses:

[BookSection](#), [InProceedings](#)

public abstract class **SectionBase**  
extends [StrictReferenceBase](#)

### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                                  |  |
|----------------------------------|--|
| <a href="#">java.lang.String</a> | <a href="#">getPages()</a>                       |
| <a href="#">PrintedUnitBase</a>  | <a href="#">getPrintedUnit()</a>                 |
| void                             | <a href="#">setPages(java.lang.String pages)</a> |

### Methods inherited from class [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

### Methods inherited from class [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)**Methods inherited from class** [java.lang.Object](#)[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)[addSource](#), [getSources](#), [removeSource](#)**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)[getMedia](#)

## Constructors

### SectionBase

```
public SectionBase()
```

## Methods

### getPages

```
public java.lang.String getPages()
```

(continued from last page)

---

## **setPages**

```
public void setPages(java.lang.String pages)
```

### **Parameters:**

pages - pages

---

## **getPrintedUnit**

```
public PrintedUnitBase getPrintedUnit()
```

## eu.etaxonomy.cdm.model.reference Class StrictReferenceBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase

```

### All Implemented Interfaces:

[java.io.Serializable](#), [IOriginalSource](#), [IMediaDocumented](#)

### Direct Known Subclasses:

[Article](#), [ConferenceProceedings](#), [Generic](#), [Patent](#), [PersonalCommunication](#), [PublicationBase](#), [SectionBase](#)

public abstract class **StrictReferenceBase**

extends [ReferenceBase](#)

A year() method is required to get the year of publication out of the datePublished field

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

## Constructor Summary

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

## Method Summary

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getCitation()</a><br>returns a formatted string containing the entire reference citation including authors |
|------------------|--|

|                            |                                    |
|----------------------------|------------------------------------|
| <a href="#">TimePeriod</a> | <a href="#">getDatePublished()</a> |
|----------------------------|------------------------------------|

|                  |                            |
|------------------|----------------------------|
| java.lang.String | <a href="#">getTitle()</a> |
|------------------|----------------------------|

|                  |  |
|------------------|--|
| java.lang.String | <a href="#">getYear()</a><br>transform the datePublished into a string representation for a year |
|------------------|--|

|      |   |
|------|---|
| void | <a href="#"> setDatePublished(<a href="#">TimePeriod</a> datePublished)</a> |
|------|---|

|      |  |
|------|--|
| void | <a href="#">setTitle(java.lang.String title)</a> |
|------|--|

#### Methods inherited from class [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### StrictReferenceBase

public [StrictReferenceBase\(\)](#)

## Methods

---

(continued from last page)

## **getTitle**

```
public java.lang.String getTitle()
```

---

## **setTitle**

```
public void setTitle(java.lang.String title)
```

---

## **getDatePublished**

```
public TimePeriod getDatePublished()
```

---

## **setDatePublished**

```
public void  setDatePublished(TimePeriod datePublished)
```

---

## **getCitation**

```
public java.lang.String getCitation()
```

returns a formatted string containing the entire reference citation including authors

---

## **getYear**

```
public java.lang.String getYear()
```

transform the datePublished into a string representation for a year

# eu.etaxonomy.cdm.model.reference Class Thesis

```

java.lang.Object
+-eu.etaxonomy.cdm.model.common.CdmBase
  +-eu.etaxonomy.cdm.model.common.VersionableEntity
    +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
      +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
          +-eu.etaxonomy.cdm.model.reference.ReferenceBase
            +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
              +-eu.etaxonomy.cdm.model.reference.PublicationBase
                +-eu.etaxonomy.cdm.model.reference.Thesis

```

## All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

public class **Thesis**  
extends [PublicationBase](#)

### Fields inherited from class eu.etaxonomy.cdm.model.common.AnnotatableEntity

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

|                             |                             |
|-----------------------------|-----------------------------|
| <a href="#">Institution</a> | <a href="#">getSchool()</a> |
|-----------------------------|-----------------------------|

|      |   |
|------|---|
| void | <a href="#">setSchool(<a href="#">Institution</a> school)</a> |
|------|---|

### Methods inherited from class eu.etaxonomy.cdm.model.reference.PublicationBase

[getPlacePublished](#), [getPublisher](#), [setPlacePublished](#), [setPublisher](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.StrictReferenceBase

[getCitation](#), [getDatePublished](#), [getTitle](#), [getYear](#),  [setDatePublished](#), [setTitle](#)

### Methods inherited from class eu.etaxonomy.cdm.model.reference.ReferenceBase

[getAuthorTeam](#), [getCitation](#), [getUri](#), [getYear](#), [isNomenclaturallyRelevant](#),  
[setAuthorTeam](#), [setNomenclaturallyRelevant](#), [setUri](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#),  
[getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#),  
[removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#),  
[setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### Thesis

```
public Thesis()
```

## Methods

(continued from last page)

## getSchool

```
public Institution getSchool()
```

---

## setSchool

```
public void setschool(Institution school)
```

### Parameters:

school - school

---

## generateTitle

```
public java.lang.String generateTitle()
```

## eu.etaxonomy.cdm.model.reference Class WebPage

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity
            +-eu.etaxonomy.cdm.model.reference.ReferenceBase
              +-eu.etaxonomy.cdm.model.reference.StrictReferenceBase
                +-eu.etaxonomy.cdm.model.reference.PublicationBase
                  +-eu.etaxonomy.cdm.model.reference.WebPage

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#), [IMediaDocumented](#)

---

public class **WebPage**  
extends [PublicationBase](#)

---

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

---

**Constructor Summary**

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

---

**Method Summary**

|                  |                                 |
|------------------|---------------------------------|
| java.lang.String | <a href="#">generateTitle()</a> |
|------------------|---------------------------------|

---

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.PublicationBase](#)

|   |
|---|
| <a href="#">getPlacePublished</a> , <a href="#">getPublisher</a> , <a href="#">setPlacePublished</a> , <a href="#">setPublisher</a> |
|---|

---

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.StrictReferenceBase](#)

|  |
|--|
| <a href="#">getCitation</a> , <a href="#">getDatePublished</a> , <a href="#">getTitle</a> , <a href="#">getYear</a> , <a href="#"> setDatePublished</a> , <a href="#">setTitle</a> |
|--|

---

**Methods inherited from class** [eu.etaxonomy.cdm.model.reference.ReferenceBase](#)

|   |
|---|
| <a href="#">getAuthorTeam</a> , <a href="#">getCitation</a> , <a href="#">getUri</a> , <a href="#">getYear</a> , <a href="#">isNomenclaturallyRelevant</a> ,<br><a href="#">setAuthorTeam</a> , <a href="#">setNomenclaturallyRelevant</a> , <a href="#">setUri</a> |
|---|

---

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableMediaEntity](#)

[addMedia](#), [getMedia](#), [removeMedia](#), [setMedia](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IMediaDocumented](#)

[getMedia](#)

## Constructors

### WebPage

```
public WebPage()
```

## Methods

### generateTitle

```
public java.lang.String generateTitle()
```

---

# Package **eu.etaxonomy.cdm.model.taxon**

## Package: "taxon"

Provides classes for taxonomy including synonymy and concept synonymy.

## Related Documentation

- [TCS schema](#)
- [TDWG Taxon Concept LSID Ontology](#)

## UML Diagrams

### Taxon

## eu.etaxonomy.cdm.model.taxon Class Synonym

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.taxon.TaxonBase
            +-eu.etaxonomy.cdm.model.taxon.Synonym
```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#)

public class **Synonym**  
extends [TaxonBase](#)

Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|   |   |
|---|---|
| void                                    | <a href="#">addSynonymRelation(SynonymRelationship synonymRelation)</a>   |
| java.util.Set                           | <a href="#">getAcceptedTaxa()</a>   |
| <a href="#">SynonymRelationshipType</a> | <a href="#">getRelationType(Taxon t)</a><br>Return the synonymy relationship type for the relation to a given accepted taxon. |
| java.util.Set                           | <a href="#">getSynonymRelations()</a>   |
| static <a href="#">Synonym</a>          | <a href="#">NewInstance(TaxonNameBase taxonName, ReferenceBase sec)</a>   |
| void                                    | <a href="#">removeSynonymRelation(SynonymRelationship synonymRelation)</a>  |
| void                                    | <a href="#">setSynonymRelations(java.util.Set synonymRelations)</a>   |

Methods inherited from class [eu.etaxonomy.cdm.model.taxon.TaxonBase](#)

[generateTitle](#), [getName](#), [getSec](#), [isDoubtful](#), [isSaveable](#), [setDoubtful](#), [setName](#), [setSec](#)

Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

## Constructors

### Synonym

public [Synonym\(\)](#)

## Methods

### NewInstance

public static [Synonym](#) [NewInstance](#)([TaxonNameBase](#) taxonName,  
[ReferenceBase](#) sec)

### getSynonymRelations

public java.util.Set [getSynonymRelations\(\)](#)

## setSynonymRelations

```
protected void setSynonymRelations(java.util.Set synonymRelations)
```

---

## addSynonymRelation

```
public void addSynonymRelation(SynonymRelationship synonymRelation)
```

---

## removeSynonymRelation

```
public void removeSynonymRelation(SynonymRelationship synonymRelation)
```

---

## getAcceptedTaxa

```
public java.util.Set getAcceptedTaxa()
```

---

## getRelationType

```
public SynonymRelationshipType getRelationType(Taxon t)
```

Return the synonymy relationship type for the relation to a given accepted taxon. If no relation exists to that taxon return null.

**Parameters:**

t

**Returns:**

## eu.etaxonomy.cdm.model.taxon Class SynonymRelationship

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.taxon.SynonymRelationship
```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

public class **SynonymRelationship**

extends [ReferencedEntityBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

|           |  |
|-----------|--|
| protected | <code>SynonymRelationship(<a href="#">Synonym</a> synoynm, <a href="#">Taxon</a> taxon, <a href="#">SynonymRelationshipType</a> type)</code> |
|-----------|--|

### Method Summary

|                       |                                    |
|-----------------------|------------------------------------|
| <a href="#">Taxon</a> | <a href="#">getAcceptedTaxon()</a> |
|-----------------------|------------------------------------|

|                         |                              |
|-------------------------|------------------------------|
| <a href="#">Synonym</a> | <a href="#">getSynonym()</a> |
|-------------------------|------------------------------|

|   |                           |
|---|---------------------------|
| <a href="#">SynonymRelationshipType</a> | <a href="#">getType()</a> |
|---|---------------------------|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

|  |
|--|
| <a href="#">getCitation</a> , <a href="#">getCitationMicroReference</a> , <a href="#">getOriginalNameString</a> , <a href="#">setCitation</a> ,<br><a href="#">setCitationMicroReference</a> , <a href="#">setOriginalNameString</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

|  |
|--|
| <a href="#">addAnnotations</a> , <a href="#">addMarker</a> , <a href="#">getAnnotations</a> , <a href="#">getMarkers</a> , <a href="#">removeAnnotations</a> ,<br><a href="#">removeMarker</a> , <a href="#">setAnnotations</a> , <a href="#">setMarkers</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

|  |
|--|
| <a href="#">getNextVersion</a> , <a href="#">getPreviousVersion</a> , <a href="#">getUpdated</a> , <a href="#">getUpdatedBy</a> , <a href="#">getValidFrom</a> ,<br><a href="#">getValidTo</a> , <a href="#">setNextVersion</a> , <a href="#">setPreviousVersion</a> , <a href="#">setUpdated</a> , <a href="#">setUpdatedBy</a> |
|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,
firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,
removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,
setId, setUuid, toString
```

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

```
getCitation
```

## Constructors

### SynonymRelationship

```
protected SynonymRelationship(Synonym synoym,
                             Taxon taxon,
                             SynonymRelationshipType type)
```

## Methods

### getAcceptedTaxon

```
public Taxon getAcceptedTaxon()
```

### getType

```
public SynonymRelationshipType getType()
```

### getSynonym

```
public Synonym getSynonym()
```

## eu.etaxonomy.cdm.model.taxon Class SynonymRelationshipType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.common.RelationshipTermBase
              +-eu.etaxonomy.cdm.model.taxon.SynonymRelationshipType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

public class **SynonymRelationshipType**

extends [RelationshipTermBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[orderIndex](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

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

|        |   |
|--------|---|
| public | <a href="#">SynonymRelationshipType(java.lang.String term, java.lang.String label, boolean symmetric, boolean transitive)</a> |
|--------|---|

### Method Summary

|   |  |
|---|--|
| static<br><a href="#">SynonymRelationshipType</a><br>pe | <a href="#">HETEROTYPIC_SYNONYM_OF()</a> |
|---|--|

|   |  |
|---|--|
| static<br><a href="#">SynonymRelationshipType</a><br>pe | <a href="#">HOMOTYPIC_SYNONYM_OF()</a> |
|---|--|

|   |                                      |
|---|--------------------------------------|
| static<br><a href="#">SynonymRelationshipType</a><br>pe | <a href="#">PARTIAL_SYNONYM_OF()</a> |
|---|--------------------------------------|

|   |  |
|---|--|
| static<br><a href="#">SynonymRelationshipType</a><br>pe | <a href="#">PRO_PARTE_SYNONYM_OF()</a> |
|---|--|

|  |                              |
|--|------------------------------|
| <pre>static SynonymRelationshipTy pe</pre> | <a href="#">SYNONYM_OF()</a> |
|--|------------------------------|

**Methods inherited from class** [eu.etworking.cdm.model.common.RelationshipTermBase](#)

[addInverseRepresentation](#), [addRepresentation](#), [getInverseDescription](#),  
[getInverseDescription](#), [getInverseLabel](#), [getInverseLabel](#), [getInverseRepresentation](#),  
[getInverseRepresentations](#), [isSymmetric](#), [isTransitive](#), [readCsvLine](#),  
[removeInverseRepresentation](#), [setInverseRepresentations](#), [setSymmetric](#), [setTransitive](#),  
[writeCsvLine](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.OrderedTermBase](#)

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etworking.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etworking.cdm.model.common.IDefTerm](#)

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** [java.lang.Comparable](#)

[compareTo](#)

(continued from last page)

## Constructors

### SynonymRelationshipType

```
public SynonymRelationshipType()
```

---

### SynonymRelationshipType

```
public SynonymRelationshipType(java.lang.String term,  
                               java.lang.String label,  
                               boolean symmetric,  
                               boolean transitive)
```

## Methods

### SYNONYM\_OF

```
public final static SynonymRelationshipType SYNONYM_OF()
```

---

### PRO\_PARTE\_SYNONYM\_OF

```
public final static SynonymRelationshipType PRO_PARTE_SYNONYM_OF()
```

---

### PARTIAL\_SYNONYM\_OF

```
public final static SynonymRelationshipType PARTIAL_SYNONYM_OF()
```

---

### HOMOTYPIC\_SYNONYM\_OF

```
public final static SynonymRelationshipType HOMOTYPIC_SYNONYM_OF()
```

---

### HETEROTYPIC\_SYNONYM\_OF

```
public final static SynonymRelationshipType HETEROTYPIC_SYNONYM_OF()
```

## eu.etaxonomy.cdm.model.taxon

### Class Taxon

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.taxon.TaxonBase
            +-eu.etaxonomy.cdm.model.taxon.Taxon

```

#### All Implemented Interfaces:

java.lang.Iterable, java.io.Serializable, [IOriginalSource](#)

---

```

public class Taxon
extends TaxonBase
implements IOriginalSource, java.io.Serializable, java.lang.Iterable

```

An accepted potential taxon defined by the combination of a Name and a sec reference `java.lang.Iterable` interface is supported to iterate through taxonomic children

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.AnnotatableEntity</a> |
|--|

|   |
|---|
| <a href="#">annotations</a> , <a href="#">markers</a> |
|---|

#### Constructor Summary

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

#### Method Summary

|      |   |
|------|---|
| void | <a href="#">addDescriptions(TaxonDescription description)</a>   |
| void | <a href="#">addMisappliedName(Taxon toTaxon, ReferenceBase citation, java.lang.String microcitation)</a>  |
| void | <a href="#">addSynonym(Synonym synonym, SynonymRelationshipType synonymType)</a><br>Ass a synonym to this taxon (a taxon can have multiple synonyms that should be pro parte synonyms then!) The <a href="#">SynonymRelationship</a> constructor immediately adds a relationship instance to both the synonym and taxon instance! |
| void | <a href="#">addSynonymRelation(SynonymRelationship synonymRelation)</a>   |
| void | <a href="#">addTaxonomicChild(Taxon child, ReferenceBase citation, java.lang.String microcitation)</a>  |
| void | <a href="#">addTaxonRelation(TaxonRelationship rel)</a>   |

|                                |   |
|--------------------------------|---|
| void                           | <a href="#">addTaxonRelation(Taxon toTaxon, TaxonRelationshipType type, ReferenceBase citation, java.lang.String microcitation)</a> |
| java.util.Set                  | <a href="#">getDescriptions()</a>   |
| java.util.List                 | <a href="#">getHeterotypicSynonymyGroups()</a>  |
| <a href="#">HomotypicGroup</a> | <a href="#">getHomotypicGroup()</a>   |
| java.util.List                 | <a href="#">getHomotypicSynonyms()</a>  |
| java.util.Set                  | <a href="#">getRelationsFromThisTaxon()</a>   |
| java.util.Set                  | <a href="#">getRelationsToThisTaxon()</a>   |
| java.util.Set                  | <a href="#">getSynonymNames()</a>   |
| java.util.Set                  | <a href="#">getSynonymRelations()</a>   |
| java.util.Set                  | <a href="#">getSynonyms()</a>   |
| java.util.Set                  | <a href="#">getSynonymsSortedByType()</a>   |
| java.util.Set                  | <a href="#">getTaxonomicChildren()</a>  |
| <a href="#">Taxon</a>          | <a href="#">getTaxonomicParent()</a>  |
| java.util.Set                  | <a href="#">getTaxonRelations()</a>   |
| boolean                        | <a href="#">hasTaxonomicChildren()</a>  |
| java.util.Iterator             | <a href="#">iterator()</a>  |
| static <a href="#">Taxon</a>   | <a href="#">NewInstance(TaxonNameBase taxonName, ReferenceBase sec)</a>   |
| void                           | <a href="#">removeDescriptions(DescriptionBase description)</a>   |
| void                           | <a href="#">removeSynonymRelation(SynonymRelationship synonymRelation)</a>  |
| void                           | <a href="#">removeTaxonRelation(TaxonRelationship rel)</a>  |
| void                           | <a href="#">setDescriptions(java.util.Set descriptions)</a>   |
| void                           | <a href="#">setRelationsFromThisTaxon(java.util.Set relationsFromThisTaxon)</a>   |
| void                           | <a href="#">setRelationsToThisTaxon(java.util.Set relationsToThisTaxon)</a>   |
| void                           | <a href="#">setSynonymRelations(java.util.Set synonymRelations)</a>   |

|      |  |
|------|--|
| void | <a href="#">setTaxonomicParent(Taxon parent, ReferenceBase citation, java.lang.String microcitation)</a> |
|------|--|

**Methods inherited from class** [eu.etaxonomy.cdm.model.taxon.TaxonBase](#)

[generateTitle](#), [getName](#), [getSec](#), [isDoubtful](#), [isSaveable](#), [setDoubtful](#), [setName](#), [setSec](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

**Methods inherited from interface** [java.lang.Iterable](#)

[iterator](#)

## Constructors

### Taxon

public [Taxon\(\)](#)

## Methods

(continued from last page)

## NewInstance

```
public static Taxon NewInstance(TaxonNameBase taxonName,  
                               ReferenceBase sec)
```

---

## getDescriptions

```
public java.util.Set getDescriptions()
```

---

## setDescriptions

```
protected void setDescriptions(java.util.Set descriptions)
```

---

## addDescriptions

```
public void addDescriptions(TaxonDescription description)
```

---

## removeDescriptions

```
public void removeDescriptions(DescriptionBase description)
```

---

## getSynonymRelations

```
public java.util.Set getSynonymRelations()
```

---

## setSynonymRelations

```
protected void setSynonymRelations(java.util.Set synonymRelations)
```

---

## addSynonymRelation

```
public void addSynonymRelation(SynonymRelationship synonymRelation)
```

---

## removeSynonymRelation

```
public void removeSynonymRelation(SynonymRelationship synonymRelation)
```

(continued from last page)

## getRelationsFromThisTaxon

```
public java.util.Set getRelationsFromThisTaxon()
```

---

## setRelationsFromThisTaxon

```
protected void setRelationsFromThisTaxon(java.util.Set relationsFromThisTaxon)
```

---

## getRelationsToThisTaxon

```
public java.util.Set getRelationsToThisTaxon()
```

---

## setRelationsToThisTaxon

```
protected void setRelationsToThisTaxon(java.util.Set relationsToThisTaxon)
```

---

## getTaxonRelations

```
public java.util.Set getTaxonRelations()
```

---

## removeTaxonRelation

```
public void removeTaxonRelation(TaxonRelationship rel)
```

---

## addTaxonRelation

```
public void addTaxonRelation(TaxonRelationship rel)
```

---

## addTaxonRelation

```
public void addTaxonRelation(Taxon toTaxon,  
                           TaxonRelationshipType type,  
                           ReferenceBase citation,  
                           java.lang.String microcitation)
```

---

## addMisappliedName

```
public void addMisappliedName(Taxon toTaxon,  
                           ReferenceBase citation,  
                           java.lang.String microcitation)
```

## addTaxonomicChild

```
public void addTaxonomicChild(Taxon child,  
    ReferenceBase citation,  
    java.lang.String microcitation)
```

---

## getTaxonomicParent

```
public Taxon getTaxonomicParent()
```

**Returns:**

## setTaxonomicParent

```
public void setTaxonomicParent(Taxon parent,  
    ReferenceBase citation,  
    java.lang.String microcitation)
```

**Parameters:**

parent  
citation  
microcitation

---

## getTaxonomicChildren

```
public java.util.Set getTaxonomicChildren()
```

**Returns:**

## hasTaxonomicChildren

```
public boolean hasTaxonomicChildren()
```

**Returns:**

## getSynonyms

```
public java.util.Set getSynonyms()
```

---

## getSynonymsSortedByType

```
public java.util.Set getSynonymsSortedByType()
```

---

(continued from last page)

---

## getSynonymNames

```
public java.util.Set getSynonymNames()
```

---

## addSynonym

```
public void addSynonym(Synonym synonym,  
                 SynonymRelationshipType synonymType)
```

ass a synonym to this taxon (a taxon can have multiple synonyms that should be pro parte synonyms then!) The [SynonymRelationship](#) constructor immediately adds a relationship instance to both the synonym and taxon instance!

**Parameters:**

    synonym  
    synonymType

---

## iterator

```
public java.util.Iterator iterator()
```

---

## getHomotypicGroup

```
public HomotypicalGroup getHomotypicGroup()
```

---

## getHomotypicSynonyms

```
public java.util.List getHomotypicSynonyms()
```

---

## getHeterotypicSynonymyGroups

```
public java.util.List getHeterotypicSynonymyGroups()
```

## eu.etaxonomy.cdm.model.taxon Class TaxonBase

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.IdentifiableEntity
          +-eu.etaxonomy.cdm.model.taxon.TaxonBase

```

### All Implemented Interfaces:

java.io.Serializable, [IOriginalSource](#)

### Direct Known Subclasses:

[Synonym](#), [Taxon](#)

public abstract class **TaxonBase**

extends [IdentifiableEntity](#)

{unique name within view/treatment}

#### Fields inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                               |   |
|-------------------------------|---|
| java.lang.String              | <a href="#">generateTitle()</a>                             |
| <a href="#">TaxonNameBase</a> | <a href="#">getName()</a>                                   |
| <a href="#">ReferenceBase</a> | <a href="#">getSec()</a>                                    |
| boolean                       | <a href="#">isDoubtful()</a>                                |
| boolean                       | <a href="#">isSaveable()</a>                                |
| void                          | <a href="#">setDoubtful(boolean isDoubtful)</a>             |
| void                          | <a href="#">setName(<a href="#">TaxonNameBase</a> name)</a> |
| void                          | <a href="#">setSec(<a href="#">ReferenceBase</a> sec)</a>   |

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.IdentifiableEntity](#)

---

[addExtension](#), [addRights](#), [addSource](#), [generateTitle](#), [getExtensions](#), [getLsid](#), [getRights](#), [getSources](#), [getTitleCache](#), [isProtectedTitleCache](#), [removeExtension](#), [removeRights](#), [removeSource](#), [setExtensions](#), [setLsid](#), [setProtectedTitleCache](#), [setRights](#), [setSources](#), [setTitleCache](#), [setTitleCache](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#), [removeMarker](#), [setAnnotations](#), [setMarkers](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#), [getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

#### Methods inherited from class [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#), [removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#), [setId](#), [setUuid](#), [toString](#)

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

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

#### Methods inherited from interface [eu.etaxonomy.cdm.model.common.IOriginalSource](#)

[addSource](#), [getSources](#), [removeSource](#)

## Constructors

### TaxonBase

public [TaxonBase\(\)](#)

## Methods

### generateTitle

public java.lang.String [generateTitle\(\)](#)

---

### getName

public [TaxonNameBase](#) [getName\(\)](#)

(continued from last page)

**setName**

```
public void setName(TaxonNameBase name)
```

---

**isDoubtful**

```
public boolean isDoubtful()
```

---

**setDoubtful**

```
public void setDoubtful(boolean isDoubtful)
```

---

**getSec**

```
public ReferenceBase getSec()
```

---

**setSec**

```
public void setSec(ReferenceBase sec)
```

---

**isSaveable**

```
public boolean isSaveable()
```

## eu.etaxonomy.cdm.model.taxon Class TaxonRelationship

```
java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.AnnotatableEntity
        +-eu.etaxonomy.cdm.model.common.ReferencedEntityBase
          +-eu.etaxonomy.cdm.model.taxon.TaxonRelationship
```

### All Implemented Interfaces:

java.io.Serializable, [IRelatedEntity](#)

public class **TaxonRelationship**

extends [ReferencedEntityBase](#)

**Fields inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[annotations](#), [markers](#)

### Constructor Summary

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

### Method Summary

|                                       |   |
|---------------------------------------|---|
| <a href="#">Taxon</a>                 | <a href="#">getFromTaxon()</a>                                      |
| <a href="#">Taxon</a>                 | <a href="#">getToTaxon()</a>  |
| <a href="#">TaxonRelationshipType</a> | <a href="#">getType()</a>   |
| void                                  | <a href="#">setFromTaxon(<a href="#">Taxon</a> fromTaxon)</a>       |
| void                                  | <a href="#">setToTaxon(<a href="#">Taxon</a> toTaxon)</a>           |
| void                                  | <a href="#">setType(<a href="#">TaxonRelationshipType</a> type)</a> |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.ReferencedEntityBase](#)

[getCitation](#), [getCitationMicroReference](#), [getOriginalNameString](#), [setCitation](#),  
[setCitationMicroReference](#), [setOriginalNameString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.AnnotatableEntity](#)

[addAnnotations](#), [addMarker](#), [getAnnotations](#), [getMarkers](#), [removeAnnotations](#),  
[removeMarker](#), [setAnnotations](#), [setMarkers](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

[addPropertyChangeListener](#), [addPropertyChangeListener](#), [equals](#), [firePropertyChange](#),  
[firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#), [firePropertyChange](#),  
[firePropertyChange](#), [getCreated](#), [getCreatedBy](#), [getId](#), [getUuid](#), [hasListeners](#),  
[removePropertyChangeListener](#), [removePropertyChangeListener](#), [setCreated](#), [setCreatedBy](#),  
[setId](#), [setUuid](#), [toString](#)

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

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

**Methods inherited from interface** [eu.etaxonomy.cdm.model.common.IReferencedEntity](#)

[getCitation](#)

## Constructors

### TaxonRelationship

```
public TaxonRelationship()
```

## Methods

### getType

```
public TaxonRelationshipType getType()
```

### setType

```
public void setType(TaxonRelationshipType type)
```

### getFromTaxon

```
public Taxon getFromTaxon()
```

### setFromTaxon

```
public void setFromTaxon(Taxon fromTaxon)
```

---

## getToTaxon

```
public Taxon getToTaxon()
```

---

## setToTaxon

```
public void setToTaxon(Taxon toTaxon)
```

## eu.etaxonomy.cdm.model.taxon Class TaxonRelationshipType

```

java.lang.Object
  +-eu.etaxonomy.cdm.model.common.CdmBase
    +-eu.etaxonomy.cdm.model.common.VersionableEntity
      +-eu.etaxonomy.cdm.model.common.TermBase
        +-eu.etaxonomy.cdm.model.common.DefinedTermBase
          +-eu.etaxonomy.cdm.model.common.OrderedTermBase
            +-eu.etaxonomy.cdm.model.common.RelationshipTermBase
              +-eu.etaxonomy.cdm.model.taxon.TaxonRelationshipType

```

### All Implemented Interfaces:

java.io.Serializable, [IDefTerm](#), java.lang.Comparable

### public class TaxonRelationshipType

extends [RelationshipTermBase](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.OrderedTermBase</a> |
|--|

[orderIndex](#)

|  |
|--|
| <b>Fields inherited from class</b> <a href="#">eu.etaxonomy.cdm.model.common.DefinedTermBase</a> |
|--|

[vocabulary](#), [vocabularyStore](#)

### Constructor Summary

|        |   |
|--------|---|
| public | <a href="#">TaxonRelationshipType()</a>   |
| public | <a href="#">TaxonRelationshipType(java.lang.String term, java.lang.String label, boolean symmetric, boolean transitive)</a> |

### Method Summary

|   |                                  |
|---|----------------------------------|
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">CONGRUENTTO()</a>    |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">CONTRADICTION()</a>  |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">DOESNOTEXCLUDE()</a> |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">DOESNOTOVERLAP()</a> |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">EXCLUDES()</a>       |

|   |  |
|---|--|
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">getUUID(java.util.UUID uuid)</a> |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">INCLUDES()</a>                   |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">INVALIDDESIGNATIONFOR()</a>      |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">MISAPPLIEDNAMEFOR()</a>          |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">NOTCONGRUENTTO()</a>             |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">NOTINCLUDEDIN()</a>              |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">OVERLAPS()</a>                   |
| static<br><a href="#">TaxonRelationshipType</a> | <a href="#">TAXONOMICALLY_INCLUDED_IN()</a>  |

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.RelationshipTermBase](#)

[addInverseRepresentation](#), [addRepresentation](#), [getInverseDescription](#),  
[getInverseDescription](#), [getInverseLabel](#), [getInverseLabel](#), [getInverseRepresentation](#),  
[getInverseRepresentations](#), [isSymmetric](#), [isTransitive](#), [readCsvLine](#),  
[removeInverseRepresentation](#), [setInverseRepresentations](#), [setSymmetric](#), [setTransitive](#),  
[writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.OrderedTermBase](#)

[compareTo](#), [decreaseIndex](#), [equals](#), [incrementIndex](#), [isHigher](#), [isLower](#), [setVocabulary](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.DefinedTermBase](#)

[addIncludes](#), [addMedia](#), [findByUuid](#), [getGeneralizationOf](#), [getIncludes](#), [getKindOf](#),  
[getMedia](#), [getPartOf](#), [getPersistentVocabulary](#), [getVocabulary](#), [readCsvLine](#),  
[readCsvLine](#), [removeIncludes](#), [removeMedia](#), [setGeneralizationOf](#), [setIncludes](#),  
[setKindOf](#), [setMedia](#), [setPartOf](#), [setPersistentVocabulary](#), [setVocabulary](#),  
[setVocabularyStore](#), [writeCsvLine](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.TermBase](#)

[addRepresentation](#), [equals](#), [getDescription](#), [getDescription](#), [getLabel](#), [getLabel](#),  
[getRepresentation](#), [getRepresentations](#), [getUri](#), [removeRepresentation](#),  
[setRepresentations](#), [setUri](#), [toString](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.VersionableEntity](#)

[getNextVersion](#), [getPreviousVersion](#), [getUpdated](#), [getUpdatedBy](#), [getValidFrom](#),  
[getValidTo](#), [setNextVersion](#), [setPreviousVersion](#), [setUpdated](#), [setUpdatedBy](#)

**Methods inherited from class** [eu.etaxonomy.cdm.model.common.CdmBase](#)

```
addPropertyChangeListener, addPropertyChangeListener, equals, firePropertyChange,  

firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,  

firePropertyChange, getCreated, getCreatedBy, getId, getUuid, hasListeners,  

removePropertyChangeListener, removePropertyChangeListener, setCreated, setCreatedBy,  

setId, setUuid, toString
```

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

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

**Methods inherited from interface** eu.etaxonomy.cdm.model.common.IDefTerm

[getVocabulary](#), [readCsvLine](#), [setVocabulary](#), [writeCsvLine](#)

**Methods inherited from interface** java.lang.Comparable

[compareTo](#)

## Constructors

### TaxonRelationshipType

public [TaxonRelationshipType\(\)](#)

### TaxonRelationshipType

public [TaxonRelationshipType](#)(java.lang.String term,  
                           java.lang.String label,  
                           boolean symmetric,  
                           boolean transitive)

## Methods

### getUUID

public final static [TaxonRelationshipType](#) [getUUID](#)(java.util.UUID uuid)

### TAXONOMICALLY\_INCLUDED\_IN

public final static [TaxonRelationshipType](#) [TAXONOMICALLY\\_INCLUDED\\_IN\(\)](#)

### MISAPPLIEDNAMEFOR

public final static [TaxonRelationshipType](#) [MISAPPLIEDNAMEFOR\(\)](#)

## INVALIDDESIGNATIONFOR

```
public final static TaxonRelationshipType INVALIDDESIGNATIONFOR()
```

---

## CONTRADICTION

```
public final static TaxonRelationshipType CONTRADICTION()
```

---

## CONGRUENTTO

```
public final static TaxonRelationshipType CONGRUENTTO()
```

---

## INCLUDES

```
public final static TaxonRelationshipType INCLUDES()
```

---

## OVERLAPS

```
public final static TaxonRelationshipType OVERLAPS()
```

---

## EXCLUDES

```
public final static TaxonRelationshipType EXCLUDES()
```

---

## DOESNOTEXCLUDE

```
public final static TaxonRelationshipType DOESNOTEXCLUDE()
```

---

## DOESNOTOVERLAP

```
public final static TaxonRelationshipType DOESNOTOVERLAP()
```

---

## NOTINCLUDEDIN

```
public final static TaxonRelationshipType NOTINCLUDEDIN()
```

---

## NOTCONGRUENTTO

```
public final static TaxonRelationshipType NOTCONGRUENTTO()
```

---

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