

# Package: geometa (via r-universe)

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**Type** Package

**Title** Tools for Reading and Writing ISO/OGC Geographic Metadata

**Version** 0.9

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

**Description** Provides facilities to read, write and validate geographic metadata defined with ISO TC211 / OGC ISO geographic information metadata standards, and encoded using the ISO 19139 (XML) standard technical specification. This includes ISO 19110 (Feature cataloguing), 19115 (dataset metadata), 19119 (service metadata) and 19136 (GML). Other interoperable schemas from the OGC are progressively supported as well, such as the Sensor Web Enablement (SWE) Common Data Model, the OGC GML Coverage Implementation Schema (GMLCOV), or the OGC GML Referenceable Grid (GMLRGRID).

**Depends** R (>= 3.3.0)

**Imports** methods, R6, XML, httr, jsonlite, keyring, readr, crayon

**Suggests** sf, ncd4, EML, emld, units, testthat, roxygen2

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**URL** <https://github.com/eblondel/geometa/wiki>

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

**LazyLoad** yes

**Encoding** UTF-8

**RoxygenNote** 7.3.1

**Roxygen** list(r6 = TRUE)

**Repository** <https://eblondel.r-universe.dev>

**RemoteUrl** <https://github.com/eblondel/geometa>

**RemoteRef** HEAD

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---

cacheISOClasses	<i>cacheISOClasses</i>
-----------------	------------------------

---

## Description

[cacheISOClasses](#) allows to cache the list of **geometa** classes or extended. This is especially required to fasten the decoding of metadata elements from an XML file. It is called internally by **geometa** the first function [getISOClasses](#) is called and each time the function [readISO19139](#) function is called to integrate eventually new classes added by user to extend **geometa** model (case of ISO profiles).

**Usage**

```
cacheISOClasses()
```

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
cacheISOClasses()
```

---

convert_metadata	<i>convert_metadata</i>
------------------	-------------------------

---

**Description**

convert\_metadata is a tentative generic metadata converter to convert from one source object, represented in a source metadata object model in R (eg eml) to a target metadata object, represented in another target metadata object model (eg **geometa** [ISOMetadata](#)). This function relies on a list of mapping rules defined to operate from the source metadata object to the target metadata object. This list of mapping rules is provided in a tabular format. A version is embedded in **geometa** and can be returned with [getMappings](#).

**Usage**

```
convert_metadata(obj, from, to, mappings, verbose)
```

**Arguments**

obj	a metadata object given in one of the mapping formats known by <b>geometa</b> . The object should be a valid id as listed by <a href="#">getMappingFormats</a> , supported as source format (from is TRUE).
from	a valid mapping format id (see <a href="#">getMappingFormats</a> ) that indicates the metadata model / format used for the argument obj
to	a valid mapping format id (see <a href="#">getMappingFormats</a> ) to convert to
mappings	a data.frame giving the reference mapping rules to convert metadata object. This data.frame is by default the output of <a href="#">getMappings</a> .
verbose	print debugging messages. Default is FALSE

**Value**

an metadata object in the model specified as to argument

**Note**

This function is mainly used internally in as generic methods to convert from one metadata format to another. It is exported for extension to user custom metadata formats or for debugging purpose. This converter is still experimental.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

---

geometa

*geometa: Tools for Reading and Writing ISO/OGC Geographic Metadata*

---

**Description**

Provides facilities to read, write and validate geographic metadata defined with ISO TC211 / OGC ISO geographic information metadata standards, and encoded using the ISO 19139 (XML) standard technical specification. This includes ISO 19110 (Feature cataloguing), 19115 (dataset metadata), 19119 (service metadata) and 19136 (GML). Other interoperable schemas from the OGC are progressively supported as well, such as the Sensor Web Enablement (SWE) Common Data Model, the OGC GML Coverage Implementation Schema (GMLCOV), or the OGC GML Referenceable Grid (GMLRGRID).

**Author(s)**

**Maintainer:** Emmanuel Blondel <emmanuel.blondel1@gmail.com> ([ORCID](#))

**See Also**

Useful links:

- <https://github.com/eblondel/geometa/wiki>
- Report bugs at <https://github.com/eblondel/geometa/issues>

---

geometaLogger

*geometaLogger*

---

**Description**

geometaLogger

geometaLogger

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling a simple logger

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

- [geometaLogger\\$INFO\(\)](#)
- [geometaLogger\\$WARN\(\)](#)
- [geometaLogger\\$ERROR\(\)](#)
- [geometaLogger\\$new\(\)](#)
- [geometaLogger\\$clone\(\)](#)

**Method** `INFO()`: Logger to report information. Used internally

*Usage:*

```
geometaLogger$INFO(text)
```

*Arguments:*

text text

**Method** `WARN()`: Logger to report warnings Used internally

*Usage:*

```
geometaLogger$WARN(text)
```

*Arguments:*

text text

**Method** `ERROR()`: Logger to report errors Used internally

*Usage:*

```
geometaLogger$ERROR(text)
```

*Arguments:*

text text

**Method** `new()`: Initializes object

*Usage:*

```
geometaLogger$new()
```

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Logger class used internally by geometa

---

geometa\_coverage      *geometa\_coverage*

---

**Description**

geometa\_coverage is a function to report coverage of ISO/OGC standard classes in package **geometa**. The function will inspect all classes of the ISO/OGC standards and will scan if **geometa** supports it.

**Usage**

```
geometa_coverage()
```

**Value**

an object of class data.frame

**Note**

This function is used as Quality Assurance indicator to assess the percentage of completeness of ISO/OGC standards in **geometa**.

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
cov <- geometa_coverage()
```

---

getClassesInheriting      *getClassesInheriting*

---

**Description**

get the list of classes inheriting a given super class provided by its name

**Usage**

```
getClassesInheriting(classname, extended, pretty)
```

**Arguments**

classname	the name of the superclass for which inheriting sub-classes have to be listed
extended	whether we want to look at user namespace for third-party sub-classes
pretty	prettify the output as data.frame

**Examples**

```
getClassesInheriting("ISAbstractObject")
```

---

getGeometaOption      *getGeometaOption*

---

**Description**

getGeometaOption allows to get an option from **geometa**

**Usage**

```
getGeometaOption(option)
```

**Arguments**

option	the name of the option
--------	------------------------

**Value**

the option

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
getGeometaOption("schemaBaseUrl")
```

---

`getGeometaOptions`      *getGeometaOptions*

---

**Description**

`getGeometaOptions` allows to get options from **geometa**

**Usage**

`getGeometaOptions()`

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

`getGeometaOptions()`

---

`getIANAMimeTypes`      *getIANAMimeTypes*

---

**Description**

`getIANAMimeTypes`

**Usage**

`getIANAMimeTypes()`

---

`getISOClasses`      *getISOClasses*

---

**Description**

get the list of cached ISO classes

**Usage**

`getISOClasses()`

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
getISOClasses()
```

---

getISOCodelist	<i>getISOCodelist</i>
----------------	-----------------------

---

**Description**

getISOCodelist allows to get a registered ISO codelist by id registered in **geometa**

**Usage**

```
getISOCodelist(id)
```

**Arguments**

id	identifier of the codelist
----	----------------------------

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
getISOCodelist(id = "LanguageCode")
```

---

getISOCodelists	<i>getISOCodelists</i>
-----------------	------------------------

---

**Description**

getISOCodelists allows to get the list of ISO codelists registered in **geometa**, their description and XML definition. The object returned is of class "data.frame"

**Usage**

```
getISOCodelists()
```

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
getISOCodelists()
```



---

`getISOInternalCodelists`  
*getISOInternalCodelists*

---

**Description**

`getISOInternalCodelists` allows to get the list of ISO codelists registered in **geometa**

**Usage**

`getISOInternalCodelists()`

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

`getISOInternalCodelists()`

---

`getISOMetadataNamespace`  
*getISOMetadataNamespace*

---

**Description**

`getISOMetadataNamespace` gets a namespace given its id

**Usage**

`getISOMetadataNamespace(id)`

**Arguments**

`id` namespace prefix

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

`getISOMetadataNamespace("GMD")`

getISOMetadataNamespaces  
*getISOMetadataNamespaces*

---

**Description**

getISOMetadataNamespaces gets the list of namespaces registered

**Usage**

getISOMetadataNamespaces()

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

getISOMetadataNamespaces()

---

getISOMetadataSchemas *getISOMetadataSchemas*

---

**Description**

getISOMetadataSchemas gets the schemas registered in **geometa**

**Usage**

getISOMetadataSchemas()

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

getISOMetadataSchemas()

---

`getMappingFormats`      *getMappingFormats*

---

### **Description**

`getMappingFormats` gets the mapping formats registered in **geometa**

### **Usage**

`getMappingFormats(pretty)`

### **Arguments**

`pretty`                      by default TRUE to return the list of formats as `data.frame`. Set to FALSE to return a list of `pivot_format` objects

### **Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

---

`getMappings`                      *getMappings*

---

### **Description**

List the mappings rules to convert from/to other metadata formats (currently EML/emld objects and NetCDF-CF/ncdf4 objects)

### **Usage**

`getMappings()`

### **Value**

a `data.frame` containing the metadata mapping rules

---

GMLAbstractCoordinateOperation  
*GMLAbstractCoordinateOperation*

---

### Description

GMLAbstractCoordinateOperation  
 GMLAbstractCoordinateOperation

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GMLAbstractCoordinateOperation

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> GMLAbstractCoordinateOperation

### Public fields

domainOfValidity domainOfValidity [0..1]: character  
 scope scope [1..\*]: character  
 operationVersion operationVersion [0..1]: character  
 coordinateOperationAccuracy coordinateOperationAccuracy [0..1]: ISOPositionalAccuracy  
 sourceCRS sourceCRS [0..1]: subclass of GMLAbstractCRS  
 targetCRS targetCRS [0..1]: subclass of GMLAbstractCRS

### Methods

#### Public methods:

- [GMLAbstractCoordinateOperation\\$new\(\)](#)
- [GMLAbstractCoordinateOperation\\$setDomainOfValidity\(\)](#)
- [GMLAbstractCoordinateOperation\\$addScope\(\)](#)
- [GMLAbstractCoordinateOperation\\$delScope\(\)](#)
- [GMLAbstractCoordinateOperation\\$setVersion\(\)](#)
- [GMLAbstractCoordinateOperation\\$addAccuracy\(\)](#)
- [GMLAbstractCoordinateOperation\\$delAccuracy\(\)](#)
- [GMLAbstractCoordinateOperation\\$setSourceCRS\(\)](#)
- [GMLAbstractCoordinateOperation\\$setTargetCRS\(\)](#)
- [GMLAbstractCoordinateOperation\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

GMLAbstractCoordinateOperation\$new(xml = NULL, defaults = list(), id = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults list of default values

id id

**Method setDomainOfValidity():** Set domain of validity

*Usage:*

GMLAbstractCoordinateOperation\$setDomainOfValidity(domainOfValidity)

*Arguments:*

domainOfValidity domain of validity, object extending [ISOExtent](#) class

**Method addScope():** Adds scope

*Usage:*

GMLAbstractCoordinateOperation\$addScope(scope)

*Arguments:*

scope scope

*Returns:* TRUE if added, FALSE otherwise

**Method delScope():** Removes scope

*Usage:*

GMLAbstractCoordinateOperation\$delScope(scope)

*Arguments:*

scope scope

*Returns:* TRUE if removed, FALSE otherwise

**Method setVersion():** Set version

*Usage:*

GMLAbstractCoordinateOperation\$setVersion(version)

*Arguments:*

version version

**Method addAccuracy():** Adds accuracy

*Usage:*

GMLAbstractCoordinateOperation\$addAccuracy(accuracy)

*Arguments:*

accuracy accuracy, object inheriting class [ISOAbstractPositionalAccuracy](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delAccuracy():** Removes accuracy

*Usage:*

GMLAbstractCoordinateOperation\$delAccuracy(accuracy)

*Arguments:*

accuracy accuracy, object inheriting class [ISOAbstractPositionalAccuracy](#)

*Returns:* TRUE if removed, FALSE otherwise

**Method** setSourceCRS(): Set source CRS

*Usage:*

GMLAbstractCoordinateOperation\$setSourceCRS(crs)

*Arguments:*

crs crs, object inheriting class [GMLAbstractSingleCRS](#)

**Method** setTargetCRS(): Set target CRS

*Usage:*

GMLAbstractCoordinateOperation\$setTargetCRS(crs)

*Arguments:*

crs crs, object inheriting class [GMLAbstractSingleCRS](#)

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

*Usage:*

GMLAbstractCoordinateOperation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractCoordinateSystem

*GMLAbstractCoordinateSystem*

---

**Description**

GMLAbstractCoordinateSystem

GMLAbstractCoordinateSystem

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLAbstractCoordinateSystem

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> GMLAbstractCoordinateSystem

**Public fields**

axis axis [1..\*]: GMLCoordinateSystemAxis

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

- [GMLAbstractCoordinateSystem\\$new\(\)](#)
- [GMLAbstractCoordinateSystem\\$addAxis\(\)](#)
- [GMLAbstractCoordinateSystem\\$delAxis\(\)](#)
- [GMLAbstractCoordinateSystem\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

`GMLAbstractCoordinateSystem$new(xml = NULL, defaults = list(), id = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults list of default values

id id

**Method addAxis():** Adds an axis

*Usage:*

`GMLAbstractCoordinateSystem$addAxis(axis)`

*Arguments:*

axis object of class GMLCoordinateSystemAxis

*Returns:* TRUE if added, FALSE otherwise

**Method delAxis():** Deletes an axis

*Usage:*

`GMLAbstractCoordinateSystem$delAxis(axis)`

*Arguments:*

axis object of class GMLCoordinateSystemAxis

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLAbstractCoordinateSystem\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractCoverage    *GMLAbstractCoverage*

---

### Description

GMLAbstractCoverage

GMLAbstractCoverage

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML abstract coverage

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractFeature](#) -> GMLAbstractCoverage

### Public fields

domainSet domainSet

rangeSet rangeSet



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

- [GMLAbstractCoverage\\$new\(\)](#)
- [GMLAbstractCoverage\\$setDomainSet\(\)](#)
- [GMLAbstractCoverage\\$setRangeSet\(\)](#)
- [GMLAbstractCoverage\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
GMLAbstractCoverage$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`element` element name

`attrs` list of attributes

`defaults` list of default values

`wrap` wrap element?

**Method** `setDomainSet()`: Set domain set

*Usage:*

```
GMLAbstractCoverage$setDomainSet(domainSet)
```

*Arguments:*

`domainSet` object inheriting either [GMLAbstractGeometry](#) or [GMLAbstractTimeObject](#)

**Method** `setRangeSet()`: Set range set (NOT YET IMPLEMENTED)

*Usage:*

```
GMLAbstractCoverage$setRangeSet()
```

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Internal binding used with OGC services

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractCRS

*GMLAbstractCRS*

---

**Description**

GMLAbstractCRS

GMLAbstractCRS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLAbstractCRS

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> GMLAbstractCRS

**Public fields**

scope scope [1..\*]: character

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

- [GMLAbstractCRS\\$new\(\)](#)
- [GMLAbstractCRS\\$addScope\(\)](#)
- [GMLAbstractCRS\\$delScope\(\)](#)
- [GMLAbstractCRS\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[GMLAbstractCRS\\$new](#)(xml = NULL, defaults = list(), id = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults list of default values  
id id

**Method** addScope(): Adds scope

*Usage:*

GMLAbstractCRS\$addScope(scope)

*Arguments:*

scope scope

*Returns:* TRUE if added, FALSE otherwise

**Method** delScope(): Removes scope

*Usage:*

GMLAbstractCRS\$delScope(scope)

*Arguments:*

scope scope

*Returns:* TRUE if removed, FALSE otherwise

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

*Usage:*

GMLAbstractCRS\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLAbstractCurve

*GMLAbstractCurve*

---

#### Description

GMLAbstractCurve

GMLAbstractCurve

#### Format

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML abstract curve

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLAbstractGeometry -> geometa::GMLAbstractGeometricPrimitive
-> GMLAbstractCurve
```

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

- [GMLAbstractCurve\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

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

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractDiscreteCoverage

*GMLAbstractDiscreteCoverage*

---

**Description**

GMLAbstractDiscreteCoverage

GMLAbstractDiscreteCoverage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML abstract discrete coverage

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractFeature](#) -> [geometa::GMLAbstractCoverage](#) -> [GMLAbstractDiscreteCoverage](#)

**Public fields**

coverageFunction coverage function

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

- [GMLAbstractDiscreteCoverage\\$new\(\)](#)
- [GMLAbstractDiscreteCoverage\\$setCoverageFunction\(\)](#)
- [GMLAbstractDiscreteCoverage\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLAbstractDiscreteCoverage$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 element element name  
 attrs list of attributes  
 defaults list of default values  
 wrap wrap element?

**Method** [setCoverageFunction\(\)](#): Set coverage function

*Usage:*

```
GMLAbstractDiscreteCoverage$setCoverageFunction(coverageFunction)
```

*Arguments:*

coverageFunction object of class [GMLGridFunction](#) (or [GMLCoverageMappingRule](#), not yet supported)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractFeature	<i>GMLAbstractFeature</i>
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---

**Description**

GMLAbstractFeature

GMLAbstractFeature

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML abstract feature

**Super classes**

[geometa: :geometaLogger](#) -> [geometa: :ISOAbstractObject](#) -> [geometa: :GMLAbstractObject](#)  
-> [GMLAbstractFeature](#)

**Public fields**

boundedBy boundedBy envelope

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

- [GMLAbstractFeature\\$new\(\)](#)
- [GMLAbstractFeature\\$setBoundedBy\(\)](#)
- [GMLAbstractFeature\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLAbstractFeature$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

element element name

attrs list of attributes

defaults list of default values

wrap wrap element?

**Method** `setBoundedBy()`: Sets bounding envelope

*Usage:*

```
GMLAbstractFeature$setBoundedBy(envelope)
```

*Arguments:*

envelope envelope, object of class [GMLEnvelope](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractGeneralConversion

*GMLAbstractGeneralConversion*

---

**Description**

GMLAbstractGeneralConversion

GMLAbstractGeneralConversion

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an GMLAbstractGeneralConversion

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCoordinateOperation  
-> geometa::GMLAbstractSingleOperation -> GMLAbstractGeneralConversion
```

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

- `GMLAbstractGeneralConversion$clone()`

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>



---

GMLAbstractGeneralDerivedCRS  
*GMLAbstractGeneralDerivedCRS*

---

## Description

GMLAbstractGeneralDerivedCRS  
 GMLAbstractGeneralDerivedCRS

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an GMLAbstractGeneralDerivedCRS

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCRS](#) ->  
[geometa::GMLAbstractSingleCRS](#) -> GMLAbstractGeneralDerivedCRS

## Public fields

conversion conversion [1..1]: [GMLConversion](#)

## Methods

### Public methods:

- [GMLAbstractGeneralDerivedCRS\\$setConversion\(\)](#)
- [GMLAbstractGeneralDerivedCRS\\$clone\(\)](#)

**Method** [setConversion\(\)](#): Set conversion

*Usage:*

[GMLAbstractGeneralDerivedCRS\\$setConversion\(conversion\)](#)

*Arguments:*

conversion, object of class [GMLConversion](#)

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

*Usage:*

[GMLAbstractGeneralDerivedCRS\\$clone\(deep = FALSE\)](#)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractGeneralOperationParameter

*GMLAbstractGeneralOperationParameter*

---

**Description**

GMLAbstractGeneralOperationParameter

GMLAbstractGeneralOperationParameter

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLAbstractGeneralOperationParameter

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)

-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> GMLAbstractGeneralOperationParameter

**Public fields**

minimumOccurs minimumOccurs [0..1]: integer

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

- [GMLAbstractGeneralOperationParameter\\$setMinimumOccurs\(\)](#)
- [GMLAbstractGeneralOperationParameter\\$clone\(\)](#)

**Method** [setMinimumOccurs\(\)](#): Set minimum occurs

*Usage:*

[GMLAbstractGeneralOperationParameter\\$setMinimumOccurs\(minimumOccurs\)](#)

*Arguments:*

minimumOccurs object of class [integer](#)

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

*Usage:*

GMLAbstractGeneralOperationParameter\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractGeneralParameterValue

*GMLAbstractGeneralParameterValue*

---

### Description

GMLAbstractGeneralParameterValue

GMLAbstractGeneralParameterValue

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML abstract general ParameterValue

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> GMLAbstractGeneralParameterValue

### Methods

#### Public methods:

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

**Method** new(): Initializes object

*Usage:*

```
GMLAbstractGeneralParameterValue$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list()
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 element element name  
 attrs list of attributes  
 defaults list of default values

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractGeometricAggregate

*GMLAbstractGeometricAggregate*

---

**Description**

GMLAbstractGeometricAggregate  
 GMLAbstractGeometricAggregate

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML abstract Geometric Aggregate

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [GMLAbstractGeometricAggregate](#)

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

- [GMLAbstractGeometricAggregate\\$clone\(\)](#)

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

*Usage:*

`GMLAbstractGeometricAggregate$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractGeometricPrimitive

*GMLAbstractGeometricPrimitive*

---

**Description**

GMLAbstractGeometricPrimitive

GMLAbstractGeometricPrimitive

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML abstract Geometric Primitive

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [GMLAbstractGeometricPrimitive](#)

## Methods

### Public methods:

- [GMLAbstractGeometricPrimitive\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

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

## References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractGeometry    *GMLAbstractGeometry*

---

## Description

GMLAbstractGeometry

GMLAbstractGeometry

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an GML abstract Geometry

## Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> GMLAbstractGeometry
```

## Methods

### Public methods:

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

**Method new():** Initializes object

*Usage:*

```
GMLAbstractGeometry$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

element element name

attrs list of attributes

defaults list of default values

wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

## Author(s)

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

## References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLAbstractGML

*GMLAbstractGML*


---

**Description**

GMLAbstractGML

GMLAbstractGML

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an GML abstract GML

**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> GMLAbstractGML

```

**Public fields**

metaDataProperty metaDataProperty [0..\*]

description description [0..1]

descriptionReference descriptionReference [0..1]: character

identifier identifier [0..1]: character

name name [0..\*]: character

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

- GMLAbstractGML\$new()
- GMLAbstractGML\$setDescription()
- GMLAbstractGML\$setDescriptionReference()
- GMLAbstractGML\$setIdentifier()
- GMLAbstractGML\$addName()
- GMLAbstractGML\$delName()
- GMLAbstractGML\$clone()

**Method** new(): Initializes object*Usage:*



```
GMLAbstractGML$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

element element name

attrs list of attributes

defaults list of default values

wrap wrap element?

**Method setDescription():** Set description

*Usage:*

```
GMLAbstractGML$setDescription(description)
```

*Arguments:*

description description

**Method setDescriptionReference():** Set description reference

*Usage:*

```
GMLAbstractGML$setDescriptionReference(descriptionReference)
```

*Arguments:*

descriptionReference description reference

**Method setIdentifier():** Set identifier

*Usage:*

```
GMLAbstractGML$setIdentifier(identifier, codeSpace)
```

*Arguments:*

identifier identifier

codeSpace codespace

**Method addName():** Adds name

*Usage:*

```
GMLAbstractGML$addName(name, codeSpace = NULL)
```

*Arguments:*

name name

codeSpace codespace

*Returns:* TRUE if added, FALSE otherwise

**Method delName():** Deletes name

*Usage:*

GMLAbstractGML\$delName(name, codeSpace = NULL)

*Arguments:*

name name

codeSpace codespace

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLAbstractGML\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractImplicitGeometry

*GMLAbstractImplicitGeometry*

---

### Description

GMLAbstractImplicitGeometry

GMLAbstractImplicitGeometry

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML abstract implicit Geometry

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)

-> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> GMLAbstractImplicitGeometry

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

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

**Method new():** Initializes object

*Usage:*

```
GMLAbstractImplicitGeometry$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

element element name

attrs list of attributes

defaults list of default values

wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLAbstractObject	<i>GMLAbstractObject</i>
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**Description**

GMLAbstractObject  
GMLAbstractObject

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML abstract object

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> GMLAbstractObject

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

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

**Method new():** Initializes object

*Usage:*

```
GMLAbstractObject$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = FALSE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 element element name  
 attrs list of attributes  
 defaults list of default values  
 wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractReferenceableGrid

*GMLAbstractReferenceableGrid*

---

**Description**

GMLAbstractReferenceableGrid

GMLAbstractReferenceableGrid

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML grid

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [geometa::GMLAbstractImplicitGeometry](#)  
 -> [geometa::GMLGrid](#) -> GMLAbstractReferenceableGrid

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLAbstractReferenceableGrid$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element name  
attrs list of attributes  
defaults list of default values  
wrap wrap element?

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

*Usage:*

GMLAbstractReferenceableGrid\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>  
OGC GML 3.3 Schema. <http://schemas.opengis.net/gml/3.3/referenceableGrid.xsd>

---

GMLAbstractRing

*GMLAbstractRing*

---

**Description**

GMLAbstractRing  
GMLAbstractRing

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML abstract ring

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> GMLAbstractRing

## Methods

### Public methods:

- [GMLAbstractRing\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

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

## References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLAbstractSingleCRS    *GMLAbstractSingleCRS*

---

## Description

GMLAbstractSingleCRS

GMLAbstractSingleCRS

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an GMLAbstractSingleCRS

## Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCRS ->  
GMLAbstractSingleCRS
```

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

- [GMLAbstractSingleCRS\\$clone\(\)](#)

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

*Usage:*

GMLAbstractSingleCRS\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLAbstractSingleOperation  
*GMLAbstractSingleOperation*

---

**Description**

GMLAbstractSingleOperation

GMLAbstractSingleOperation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLAbstractSingleOperation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCoordinateOperation](#)  
-> [GMLAbstractSingleOperation](#)



## Methods

### Public methods:

- [GMLAbstractSingleOperation\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

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

## References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLAbstractSurface      *GMLAbstractSurface*

---

## Description

GMLAbstractSurface

GMLAbstractSurface

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an GML abstract surface

## Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLAbstractGeometry -> geometa::GMLAbstractGeometricPrimitive  
-> GMLAbstractSurface
```

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

- [GMLAbstractSurface\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

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

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLAbstractTimeGeometricPrimitive

*GMLAbstractTimeGeometricPrimitive*

---

**Description**

GMLAbstractTimeGeometricPrimitive

GMLAbstractTimeGeometricPrimitive

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO GML abstract temporal primitive

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLAbstractTimeObject -> geometa::GMLAbstractTimePrimitive  
-> GMLAbstractTimeGeometricPrimitive
```

## Methods

### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLAbstractTimeGeometricPrimitive$new(xml = NULL, defaults = list())
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`defaults` list of default values

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

---

GMLAbstractTimeObject *GMLAbstractTimeObject*

---

## Description

GMLAbstractTimeObject

GMLAbstractTimeObject

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an GML AbstractTimeObject

## Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> GMLAbstractTimeObject
```

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

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLAbstractTimeObject$new(xml = NULL, defaults = list())
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`defaults` list of default values

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAbstractTimePrimitive

*GMLAbstractTimePrimitive*

---

**Description**

GMLAbstractTimePrimitive

GMLAbstractTimePrimitive

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML AbstractTimePrimitive

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLAbstractTimeObject -> GMLAbstractTimePrimitive
```

**Public fields**

relatedTime relatedTime

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

- [GMLAbstractTimePrimitive\\$new\(\)](#)
- [GMLAbstractTimePrimitive\\$addRelatedTime\(\)](#)
- [GMLAbstractTimePrimitive\\$delRelatedTime\(\)](#)
- [GMLAbstractTimePrimitive\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
GMLAbstractTimePrimitive$new(xml = NULL, defaults = list())
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
defaults list of default values

**Method** `addRelatedTime()`: Adds related time

*Usage:*

```
GMLAbstractTimePrimitive$addRelatedTime(time)
```

*Arguments:*

time object of class [GMLTimeInstant](#), [GMLTimePeriod](#). (GMLTimeNode or GMLTimeEdge are not yet supported)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delRelatedTime()`: Deletes related time

*Usage:*

```
GMLAbstractTimePrimitive$delRelatedTime(time)
```

*Arguments:*

time object of class [GMLTimeInstant](#), [GMLTimePeriod](#). (GMLTimeNode or GMLTimeEdge are not yet supported)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLAffineCS

*GMLAffineCS*

---

**Description**

GMLAffineCS

GMLAffineCS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLAffineCS

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCoordinateSystem
-> GMLAffineCS
```

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

- [GMLAffineCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLBaseUnit

*GMLBaseUnit*

---

**Description**

GMLBaseUnit

GMLBaseUnit

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML base unit

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLUnitDefinition](#)  
-> GMLBaseUnit

**Public fields**

unitsSystem unitsSystem [1..1]: character

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

- [GMLBaseUnit\\$new\(\)](#)
- [GMLBaseUnit\\$setUnitsSystem\(\)](#)
- [GMLBaseUnit\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLBaseUnit$new(xml = NULL, defaults = list(), id = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults list of default values

id id

**Method** `setUnitsSystem()`: Set unit system

*Usage:*

```
GMLBaseUnit$setUnitsSystem(unitsSystem)
```

*Arguments:*

unitsSystem units system

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

**Examples**

```
gml <- GMLBaseUnit$new()
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
gml$setUnitsSystem("somelink")
```



---

GMLCartesianCS

*GMLCartesianCS*

---

### Description

GMLCartesianCS

GMLCartesianCS

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GMLCartesianCS

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCoordinateSystem](#)  
-> GMLCartesianCS

### Methods

#### Public methods:

- [GMLCartesianCS\\$clone\(\)](#)

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

*Usage:*

[GMLCartesianCS\\$clone](#)(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Note

Experimental

### Author(s)

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

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLCodeType

*GMLCodeType*

---

### Description

GMLCodeType

GMLCodeType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling a GML code type

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> GMLCodeType

### Public fields

value value

attrs attributes

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLCodeType$new(xml = NULL, value = NULL, codeSpace = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

codeSpace code space

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLCompoundCRS	<i>GMLCompoundCRS</i>
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**Description**

GMLCompoundCRS

GMLCompoundCRS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLCompoundCRS

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCRS](#) ->  
 GMLCompoundCRS

**Public fields**

componentReferenceSystem componentReferenceSystem [2..\*]: instance of AbstractSingleCRS

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

- [GMLCompoundCRS\\$new\(\)](#)
- [GMLCompoundCRS\\$addComponentReferenceSystem\(\)](#)
- [GMLCompoundCRS\\$delComponentReferenceSystem\(\)](#)
- [GMLCompoundCRS\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[GMLCompoundCRS\\$new](#)(xml = NULL, defaults = list(), id = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
defaults default values  
id id

**Method** addComponentReferenceSystem(): Adds component reference system

*Usage:*

GMLCompoundCRS\$addComponentReferenceSystem(referenceSystem)

*Arguments:*

referenceSystem referenceSystem, object of class [GMLAbstractSingleCRS](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delComponentReferenceSystem(): Deletes component reference system

*Usage:*

GMLCompoundCRS\$delComponentReferenceSystem(referenceSystem)

*Arguments:*

referenceSystem referenceSystem, object of class [GMLAbstractSingleCRS](#)

*Returns:* TRUE if delete, FALSE otherwise

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

*Usage:*

GMLCompoundCRS\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLConventionalUnit    *GMLConventionalUnit*

---

**Description**

GMLConventionalUnit  
 GMLConventionalUnit

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML derived unit

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLUnitDefinition](#)  
 -> GMLConventionalUnit

**Public fields**

conversionToPreferredUnit conversionToPreferredUnit [1..1]: character/integer  
 roughConversionToPreferredUnit roughConversionToPreferredUnit [1..1]: character/integer  
 derivationUnitTerm derivationUnitTerm [1..\*]: character

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

- [GMLConventionalUnit\\$new\(\)](#)
- [GMLConventionalUnit\\$addDerivationUnitTerm\(\)](#)
- [GMLConventionalUnit\\$delDerivationUnitTerm\(\)](#)
- [GMLConventionalUnit\\$setConversionToPreferredUnit\(\)](#)
- [GMLConventionalUnit\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[GMLConventionalUnit\\$new](#)(xml = NULL, defaults = list(), id = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults default values

id id

**Method** `addDerivationUnitTerm()`: Adds a derivation unit term, made of a uom reference, and an exponent which can be negative/positive but not equal to zero.

*Usage:*

```
GMLConventionalUnit$addDerivationUnitTerm(uom, exponent)
```

*Arguments:*

uom unit of measure reference

exponent exponent

*Returns:* TRUE if added, FALSE otherwise

**Method** `delDerivationUnitTerm()`: Deletes a derivation unit term

*Usage:*

```
GMLConventionalUnit$delDerivationUnitTerm(uom, exponent)
```

*Arguments:*

uom unit of measure reference

exponent exponent

*Returns:* TRUE if deleted, FALSE otherwise

**Method** `setConversionToPreferredUnit()`: Sets the conversion to preferred unit.

*Usage:*

```
GMLConventionalUnit$setConversionToPreferredUnit(uom, factor, rough = FALSE)
```

*Arguments:*

uom unit of measure reference

factor factor

rough rough . Default is FALSE

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

**Examples**

```

gml <- GMLConventionalUnit$new()
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
gml$addDerivationUnitTerm("uomId", 2L)
gml$setConversionToPreferredUnit("uomId", 2L)

```

---

GMLConversion

*GMLConversion*


---

**Description**

GMLConversion

GMLConversion

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an GMLConversion**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCoordinateOperation
-> geometa::GMLAbstractSingleOperation -> geometa::GMLAbstractGeneralConversion ->
GMLConversion

```

**Public fields**

method method [1..1]: GMLOperationMethod

parameterValue parameterValue [0..\*]: GMLParameterValue

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

- [GMLConversion\\$setMethod\(\)](#)
- [GMLConversion\\$addParameterValue\(\)](#)
- [GMLConversion\\$delParameterValue\(\)](#)
- [GMLConversion\\$clone\(\)](#)

**Method** `setMethod()`: Set method

*Usage:*

`GMLConversion$setMethod(method)`

*Arguments:*

`method` method, object of class [GMLOperationMethod](#)

**Method** `addParameterValue()`: Adds parameter value

*Usage:*

`GMLConversion$addParameterValue(paramValue)`

*Arguments:*

`paramValue` parameter value, object class inheriting [GMLAbstractGeneralParameterValue](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delParameterValue()`: Deletes parameter value

*Usage:*

`GMLConversion$delParameterValue(paramValue)`

*Arguments:*

`paramValue` parameter value, object class inheriting [GMLAbstractGeneralParameterValue](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

`GMLConversion$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>



---

GMLCoordinateSystemAxis  
*GMLCoordinateSystemAxis*

---

## Description

GMLCoordinateSystemAxis  
GMLCoordinateSystemAxis

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an GMLCoordinateSystemAxis

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> GMLCoordinateSystemAxis

## Public fields

axisAbbrev axisAbbrev [1..1]: character  
axisDirection axisDirection [1..1]: character (with codeSpace)  
minimumValue minimumValue [0..1]: double  
maximumValue maximumValue [0..1]: double  
rangeMeaning rangeMeaning [0..1]: character (with codeSpace)

## Methods

### Public methods:

- [GMLCoordinateSystemAxis\\$new\(\)](#)
- [GMLCoordinateSystemAxis\\$setAbbrev\(\)](#)
- [GMLCoordinateSystemAxis\\$setDirection\(\)](#)
- [GMLCoordinateSystemAxis\\$setMinimumValue\(\)](#)
- [GMLCoordinateSystemAxis\\$setMaximumValue\(\)](#)
- [GMLCoordinateSystemAxis\\$setRangeMeaning\(\)](#)
- [GMLCoordinateSystemAxis\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[GMLCoordinateSystemAxis\\$new](#)(xml = NULL, defaults = list(), id = NULL, uom = NA)

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
defaults list of default values  
id id  
uom unit of measure

**Method** setAbbrev(): Set Abbrev*Usage:*

```
GMLCoordinateSystemAxis$setAbbrev(abbrev)
```

*Arguments:*

abbrev abbrev

**Method** setDirection(): Set description*Usage:*

```
GMLCoordinateSystemAxis$setDirection(direction, codeSpace = NULL)
```

*Arguments:*

direction direction  
codeSpace code space

**Method** setMinimumValue(): Set minimum value*Usage:*

```
GMLCoordinateSystemAxis$setMinimumValue(value)
```

*Arguments:*

value value

**Method** setMaximumValue(): Set maximum value*Usage:*

```
GMLCoordinateSystemAxis$setMaximumValue(value)
```

*Arguments:*

value value

**Method** setRangeMeaning(): Set range meaning*Usage:*

```
GMLCoordinateSystemAxis$setRangeMeaning(meaning, codeSpace = NULL)
```

*Arguments:*

meaning meaning  
codeSpace code space

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

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLCOVAbstractCoverage

*GMLCOVAbstractCoverage*

---

**Description**

GMLCOVAbstractCoverage

GMLCOVAbstractCoverage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling a GMLCOV Abstract Coverage

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractFeature](#) -> [geometa::GMLAbstractCoverage](#) -> GMLCOVAbstractCoverage

**Public fields**

coverageFunction coverage function

rangeType range type

metadata metadata

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

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLCOVAbstractCoverage$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

element element name

attrs list of attributes

defaults list of default values

wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

GML 3.2.1 Application Schema for Coverages <http://www.opengis.net/gmlcov/1.0>

---

GMLCOVExtension

*GMLCOVExtension*

---

**Description**

GMLCOVExtension

GMLCOVExtension

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling a GMLCOV Extension

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> GMLCOVExtension

**Public fields**

anyElement anyElement

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

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

**Method new():** Initializes object

*Usage:*

```
GMLCOVExtension$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element name  
attrs list of attributes  
defaults list of default values  
wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Internal binding for OGC services

**Author(s)**

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

**References**

GML 3.2.1 Application Schema for Coverages <http://www.opengis.net/gmlcov/1.0>

GMLCylindricalCS

*GMLCylindricalCS*

---

**Description**

GMLCylindricalCS

GMLCylindricalCS

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an GMLCylindricalCS**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCoordinateSystem
-> GMLCylindricalCS
```

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

- [GMLCylindricalCS\\$clone\(\)](#)

**Method** `clone()`: The objects of this class are cloneable with this method.*Usage:*`GMLCylindricalCS$clone(deep = FALSE)`*Arguments:*`deep` Whether to make a deep clone.**Note**

Experimental

**Author(s)**

Emmanuel Blondel &lt;emmanuel.blondel1@gmail.com&gt;

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLDefinition

*GMLDefinition*

---

### Description

GMLDefinition

GMLDefinition

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML definition

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [GMLDefinition](#)

### Public fields

remarks remarks [0..\*]: character

### Methods

#### Public methods:

- [GMLDefinition\\$new\(\)](#)
- [GMLDefinition\\$addRemark\(\)](#)
- [GMLDefinition\\$delRemark\(\)](#)
- [GMLDefinition\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`GMLDefinition$new(xml = NULL, defaults = list())`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults default values

**Method** [addRemark\(\)](#): Adds remark

*Usage:*

`GMLDefinition$addRemark(remark)`

*Arguments:*

remark remark

*Returns:* TRUE if added, FALSE otherwise

**Method** delRemark(): Deletes remark

*Usage:*

```
GMLDefinition$delRemark(remark)
```

*Arguments:*

remark remark

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

#### Examples

```
gml <- GMLDefinition$new()
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
```

---

GMLDerivedCRS

*GMLDerivedCRS*

---

#### Description

GMLDerivedCRS

GMLDerivedCRS

#### Format

[R6Class](#) object.



**Value**

Object of [R6Class](#) for modelling an GMLDerivedCRS

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCRS ->
geometa::GMLAbstractSingleCRS -> geometa::GMLAbstractGeneralDerivedCRS -> GMLDerivedCRS
```

**Public fields**

baseCRS baseCRS [1..1]: inherited from GMLAbstractSingleCRS  
 derivedCRSType derivedCRSType [1..1]: character  
 coordinateSystem coordinateSystem [1..1]: inherited from GMLAbstractCoordinateSystem

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

- [GMLDerivedCRS\\$setBaseCRS\(\)](#)
- [GMLDerivedCRS\\$setDerivedCRSType\(\)](#)
- [GMLDerivedCRS\\$setCoordinateSystem\(\)](#)
- [GMLDerivedCRS\\$clone\(\)](#)

**Method** [setBaseCRS\(\)](#): Set base CRS

*Usage:*

`GMLDerivedCRS$setBaseCRS(crs)`

*Arguments:*

crs object inheriting class [GMLAbstractSingleCRS](#)

**Method** [setDerivedCRSType\(\)](#): Set derived CRS type

*Usage:*

`GMLDerivedCRS$setDerivedCRSType(type, codeSpace = NULL)`

*Arguments:*

type type

codeSpace code space

**Method** [setCoordinateSystem\(\)](#): set coordinate system

*Usage:*

`GMLDerivedCRS$setCoordinateSystem(cs)`

*Arguments:*

cs cs, object inheriting class [GMLAbstractCoordinateSystem](#)

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

*Usage:*

`GMLDerivedCRS$clone(deep = FALSE)`

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLDerivedUnit

*GMLDerivedUnit*

---

**Description**

GMLDerivedUnit

GMLDerivedUnit

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML derived unit

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLUnitDefinition
-> GMLDerivedUnit
```

**Public fields**

derivationUnitTerm derivationUnitTerm [1..\*]: character

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

- [GMLDerivedUnit\\$new\(\)](#)
- [GMLDerivedUnit\\$addDerivationUnitTerm\(\)](#)
- [GMLDerivedUnit\\$delDerivationUnitTerm\(\)](#)
- [GMLDerivedUnit\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLDerivedUnit$new(xml = NULL, defaults = list(), id = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 defaults default values  
 id id

**Method** `addDerivationUnitTerm()`: Adds a derivation unit term, made of a uom reference, and an exponent which can be negative/positive but not equal to zero.

*Usage:*

```
GMLDerivedUnit$addDerivationUnitTerm(uom, exponent)
```

*Arguments:*

uom unit of measure reference

exponent exponent

*Returns:* TRUE if added, FALSE otherwise

**Method** `delDerivationUnitTerm()`: Deletes a derivation unit term.

*Usage:*

```
GMLDerivedUnit$delDerivationUnitTerm(uom, exponent)
```

*Arguments:*

uom unit of measure reference

exponent exponent

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

### Examples

```
gml <- GMLDerivedUnit$new()
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
gml$addDerivationUnitTerm("uomId", 2L)
```

---

 GMLElement

*GMLElement*


---

**Description**

GMLElement

GMLElement

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an GML element**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> GMLElement

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

- [GMLElement\\$new\(\)](#)
- [GMLElement\\$decode\(\)](#)
- [GMLElement\\$clone\(\)](#)

**Method** `new()`: Initializes object*Usage:*

```
GMLElement$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  xmlNamespacePrefix = "GML"
)
```

*Arguments:*xml object of class [XMLInternalNode-class](#)

element element

attrs attrs

defaults default values

xmlNamespacePrefix xmlNamespacePrefix Default is 'GML'

**Method** `decode()`: Decodes the XML

*Usage:*

GMLElement\$decode(xml)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

GMLElement\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

GMLEllipsoidalCS

*GMLEllipsoidalCS*

---

**Description**

GMLEllipsoidalCS

GMLEllipsoidalCS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLEllipsoidalCS

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCoordinateSystem](#)  
-> GMLEllipsoidalCS

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

- [GMLEllipsoidalCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLEnvelope

*GMLEnvelope*

---

**Description**

GMLEnvelope

GMLEnvelope

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML envelope

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> GMLEnvelope
```

**Public fields**

lowerCorner lower corner  
upperCorner upper corner

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

- [GMLEnvelope\\$new\(\)](#)
- [GMLEnvelope\\$decode\(\)](#)
- [GMLEnvelope\\$clone\(\)](#)

**Method new():** Initializes a GML envelope. The argument 'bbox' should be a matrix of dim 2,2 giving the x/y min/max values of a bounding box, as returned by bbox function in package **sp**.

*Usage:*

```
GMLEnvelope$new(  
  xml = NULL,  
  element = NULL,  
  bbox,  
  srsName = NULL,  
  srsDimension = NULL,  
  axisLabels = NULL,  
  uomLabels = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element  
bbox object of class [matrix](#)  
srsName SRS name  
srsDimension SRS dimension  
axisLabels axis labels  
uomLabels uom labels

**Method decode():** Decodes an XML representation

*Usage:*

```
GMLEnvelope$decode(xml)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLEnvelopeWithTimePeriod

*GMLEnvelopeWithTimePeriod*

---

**Description**

GMLEnvelopeWithTimePeriod

GMLEnvelopeWithTimePeriod

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML envelope with time period

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLEnvelope](#) -> GMLEnvelopeWithTimePeriod

**Public fields**

beginPosition begin position

endPosition end position



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

- [GMLEnvelopeWithTimePeriod\\$new\(\)](#)
- [GMLEnvelopeWithTimePeriod\\$decode\(\)](#)
- [GMLEnvelopeWithTimePeriod\\$setBeginPosition\(\)](#)
- [GMLEnvelopeWithTimePeriod\\$setEndPosition\(\)](#)
- [GMLEnvelopeWithTimePeriod\\$clone\(\)](#)

**Method** `new()`: Initializes a GML envelope with time period. The argument 'bbox' should be a matrix of dim 2,2 giving the x/y min/max values of a bounding box, as returned by `bbox` function in package `sp`.

*Usage:*

```
GMLEnvelopeWithTimePeriod$new(
  xml = NULL,
  element = NULL,
  bbox,
  beginPosition,
  endPosition,
  srsName = NULL,
  srsDimension = NULL,
  axisLabels = NULL,
  uomLabels = NULL
)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)  
`element` element  
`bbox` object of class [matrix](#)  
`beginPosition` begin position, object of class [Date](#) or [POSIXct-class](#)  
`endPosition` end position, object of class [Date](#) or [POSIXct-class](#)  
`srsName` SRS name  
`srsDimension` SRS dimension  
`axisLabels` axis labels  
`uomLabels` uom labels

**Method** `decode()`: Decodes an XML representation

*Usage:*

```
GMLEnvelopeWithTimePeriod$decode(xml)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setBeginPosition()`: Set begin position

*Usage:*

```
GMLEnvelopeWithTimePeriod$setBeginPosition(beginPosition)
```

*Arguments:*

beginPosition object of class [Date](#) or [POSIXct-class](#)

**Method** setEndPosition(): Set end position

*Usage:*

GMLEnvelopeWithTimePeriod\$setEndPosition(endPosition)

*Arguments:*

endPosition object of class [Date](#) or [POSIXct-class](#)

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

*Usage:*

GMLEnvelopeWithTimePeriod\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLGeneralGridAxis      *GMLGeneralGridAxis*

---

**Description**

GMLGeneralGridAxis

GMLGeneralGridAxis

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML GeneralGridAxis

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> GMLGeneralGridAxis

**Public fields**

offsetVector offset vector  
coefficients coefficients  
gridAxesSpanned grid axes spanned  
sequenceRule sequence rule

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

- [GMLGeneralGridAxis\\$new\(\)](#)
- [GMLGeneralGridAxis\\$decode\(\)](#)
- [GMLGeneralGridAxis\\$setOffsetVector\(\)](#)
- [GMLGeneralGridAxis\\$setCoefficients\(\)](#)
- [GMLGeneralGridAxis\\$setGridAxesSpanned\(\)](#)
- [GMLGeneralGridAxis\\$setSequenceRule\(\)](#)
- [GMLGeneralGridAxis\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

GMLGeneralGridAxis\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** decode(): Decodes XML

*Usage:*

GMLGeneralGridAxis\$decode(xml)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setOffsetVector(): Set offset vector

*Usage:*

GMLGeneralGridAxis\$setOffsetVector(offsetVector)

*Arguments:*

offsetVector offset vector object of class [vector](#)

**Method** setCoefficients(): Set coefficients

*Usage:*

GMLGeneralGridAxis\$setCoefficients(coefficients)

*Arguments:*

coefficients coefficients object of class [vector](#)

**Method** setGridAxesSpanned(): Set grid axes spanned

*Usage:*

GMLGeneralGridAxis\$setGridAxesSpanned(spanned)

*Arguments:*

spanned spanned

**Method** setSequenceRule(): Set sequence rule

*Usage:*

GMLGeneralGridAxis\$setSequenceRule(sequenceRule)

*Arguments:*

sequenceRule sequence rule

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

*Usage:*

GMLGeneralGridAxis\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

OGC GML 3.3 Schema. <http://schemas.opengis.net/gml/3.3/referenceableGrid.xsd>

---

GMLGeodeticCRS

*GMLGeodeticCRS*

---

**Description**

GMLGeodeticCRS

GMLGeodeticCRS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLGeodeticCRS

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCRS](#) ->  
 GMLGeodeticCRS

**Public fields**

ellipsoidalCS ellipsoidalCS [1..1]: [GMLEllipsoidalCS](#)  
 cartesianCS cartesianCS [1..1]: [GMLCartesianCS](#)  
 sphericalCS sphericalCS [1..1]: [GMLSphericalCS](#)  
 geodeticDatum geodeticDatum [1..1]: [GMLGeodeticDatum](#)

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

- [GMLGeodeticCRS\\$setEllipsoidalCS\(\)](#)
- [GMLGeodeticCRS\\$setCartesianCS\(\)](#)
- [GMLGeodeticCRS\\$setSphericalCS\(\)](#)
- [GMLGeodeticCRS\\$setGeodeticDatum\(\)](#)
- [GMLGeodeticCRS\\$clone\(\)](#)

**Method** [setEllipsoidalCS\(\)](#): Set ellipsoidal CS

*Usage:*

[GMLGeodeticCRS\\$setEllipsoidalCS\(cs\)](#)

*Arguments:*

cs cs, object of class [GMLEllipsoidalCS](#)

**Method** [setCartesianCS\(\)](#): Set cartesian CS

*Usage:*

[GMLGeodeticCRS\\$setCartesianCS\(cs\)](#)

*Arguments:*

cs cs, object of class [GMLCartesianCS](#)

**Method** [setSphericalCS\(\)](#): Set spherical CS

*Usage:*

[GMLGeodeticCRS\\$setSphericalCS\(cs\)](#)

*Arguments:*

cs cs, object of class [GMLSphericalCS](#)

**Method** [setGeodeticDatum\(\)](#): Set geodetic datum. Currently not supported

*Usage:*

[GMLGeodeticCRS\\$setGeodeticDatum\(datum\)](#)

*Arguments:*

datum object of class GMLGeodeticDatum

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

*Usage:*

GMLGeodeticCRS\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLGrid

*GMLGrid*

---

### Description

GMLGrid

GMLGrid

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML grid

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [geometa::GMLAbstractImplicitGeometry](#)  
 -> GMLGrid

### Public fields

limits limits

axisLabels axis labels

axisName axis name

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

- [GMLGrid\\$new\(\)](#)
- [GMLGrid\\$setGridEnvelope\(\)](#)
- [GMLGrid\\$setAxisLabels\(\)](#)
- [GMLGrid\\$addAxisName\(\)](#)
- [GMLGrid\\$delAxisName\(\)](#)
- [GMLGrid\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
GMLGrid$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element name  
attrs list of attributes  
defaults list of default values  
wrap wrap element?

**Method setGridEnvelope():** Set grid envelope

*Usage:*

```
GMLGrid$setGridEnvelope(m)
```

*Arguments:*

m object of class [matrix](#)

**Method setAxisLabels():** Set axis labels

*Usage:*

```
GMLGrid$setAxisLabels(labels)
```

*Arguments:*

labels labels

**Method addAxisName():** Adds axis name

*Usage:*

```
GMLGrid$addAxisName(axisName)
```

*Arguments:*

axisName axis name

*Returns:* TRUE if added, FALSE otherwise

**Method** delAxisName(): Deletes axis name

*Usage:*

GMLGrid\$delAxisName(axisName)

*Arguments:*

axisName axis name

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLGrid\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### Note

Class used internally by geometa

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLGridCoverage

*GMLGridCoverage*

---

#### Description

GMLGridCoverage

GMLGridCoverage

#### Format

[R6Class](#) object.

#### Value

Object of [R6Class](#) for modelling an GML grid coverage



**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractFeature -> geometa::GMLAbstractCoverage -> geometa::GMLAbstractDiscreteCoverage  
-> GMLGridCoverage

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

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

**Method new():** Initializes object

*Usage:*

```
GMLGridCoverage$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element name  
attrs list of attributes  
defaults list of default values  
wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLGridEnvelope	<i>GMLGridEnvelope</i>
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---

**Description**

GMLGridEnvelope

GMLGridEnvelope

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an GML grid envelope

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> GMLGridEnvelope

**Public fields**

low low value [matrix]

high high value [matrix]

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

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

**Method new():** This method is used to instantiate a GML envelope. The argument 'bbox' should be a matrix of dim 2,2 giving the x/y min/max values of a bounding box, as returned by bbox function in package **sp**

*Usage:*

GMLGridEnvelope\$new(xml = NULL, bbox)

*Arguments:*xml object of class XMLInternalNode-class from **XML**

bbox object of class matrix

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

*Usage:*

GMLGridEnvelope\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLGridFunction	<i>GMLGridFunction</i>
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**Description**

GMLGridFunction

GMLGridFunction

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML grid function

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [GMLGridFunction](#)

**Public fields**

sequenceRule sequence rule

startPoint start point

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

- [GMLGridFunction\\$new\(\)](#)
- [GMLGridFunction\\$setSequenceRule\(\)](#)
- [GMLGridFunction\\$setStartPoint\(\)](#)
- [GMLGridFunction\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
GMLGridFunction$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 element element name  
 attrs list of attributes  
 defaults list of default values  
 wrap wrap element?

**Method** setSequenceRule(): Set sequence rule

*Usage:*

```
GMLGridFunction$setSequenceRule(sequenceRule)
```

*Arguments:*

sequenceRule sequence rule, a value among: Linear,Boustrophedonic, Cantor-diagonal,Spiral,Morton,Hilbert

**Method** setStartPoint(): Set start point

*Usage:*

```
GMLGridFunction$setStartPoint(x, y)
```

*Arguments:*

x x  
 y y

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used internally by geometa

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLLinearCS

*GMLLinearCS*

---

### Description

GMLLinearCS

GMLLinearCS

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GMLLinearCS

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCoordinateSystem](#)  
-> GMLLinearCS

### Methods

#### Public methods:

- [GMLLinearCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

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

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLLinearRing

*GMLLinearRing*

---

### Description

GMLLinearRing

GMLLinearRing

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML LinearRing

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractRing](#) -> GMLLinearRing

### Public fields

attrs gml attributes

posList list of positions

### Methods

#### Public methods:

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

**Method** [new\(\)](#): Initializes object

*Usage:*

[GMLLinearRing\\$new](#)(xml = NULL, m)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

m simple object of class [matrix](#)

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

*Usage:*

[GMLLinearRing\\$clone](#)(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLLineString

*GMLLineString*

---

**Description**

GMLLineString

GMLLineString

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML linestring

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLAbstractGeometry -> geometa::GMLAbstractGeometricPrimitive  
-> geometa::GMLAbstractCurve -> GMLLineString
```

**Public fields**

posList list of positions

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLLineString$new(xml = NULL, sfg)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

sfg simple feature geometry resulting from **sf**

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Note

Experimental

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLMultiCurve

*GMLMultiCurve*

---

### Description

GMLMultiCurve

GMLMultiCurve

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML multicurve

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)

-> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [geometa::GMLAbstractGeometricAggregate](#)

-> GMLMultiCurve



**Public fields**

attrs gml attributes  
curveMember curve members

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

- [GMLMultiCurve\\$new\(\)](#)
- [GMLMultiCurve\\$addCurveMember\(\)](#)
- [GMLMultiCurve\\$delCurveMember\(\)](#)
- [GMLMultiCurve\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

GMLMultiCurve\$new(xml = NULL, sfg = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

sfg simple feature geometry resulting from **sf**

**Method** addCurveMember(): Adds curve member

*Usage:*

GMLMultiCurve\$addCurveMember(curve)

*Arguments:*

curve curve object of class inheriting [GMLAbstractCurve](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delCurveMember(): Deletes curve member

*Usage:*

GMLMultiCurve\$delCurveMember(curve)

*Arguments:*

curve curve object of class inheriting [GMLAbstractCurve](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLMultiCurve\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLMultiCurveCoverage *GMLMultiCurveCoverage*

---

**Description**

GMLMultiCurveCoverage

GMLMultiCurveCoverage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML multicurve coverage

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractFeature](#) -> [geometa::GMLAbstractCoverage](#) -> [geometa::GMLAbstractDiscreteCoverage](#)  
 -> [GMLMultiCurveCoverage](#)

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

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLMultiCurveCoverage$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 element element name  
 attrs list of attributes  
 defaults list of default values  
 wrap wrap element?

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

*Usage:*

GMLMultiCurveCoverage\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used internally by geometa

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLMultiPoint

*GMLMultiPoint*

---

**Description**

GMLMultiPoint

GMLMultiPoint

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML multipoint

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [geometa::GMLAbstractGeometricAggregate](#)  
 -> GMLMultiPoint

**Public fields**

pointMember point members

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

- [GMLMultiPoint\\$new\(\)](#)
- [GMLMultiPoint\\$addPointMember\(\)](#)
- [GMLMultiPoint\\$delPointMember\(\)](#)
- [GMLMultiPoint\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`GMLMultiPoint$new(xml = NULL, sfg = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

sfg simple feature geometry resulting from `sf`

**Method** `addPointMember()`: Adds point member

*Usage:*

`GMLMultiPoint$addPointMember(point)`

*Arguments:*

point point object of class [GMLPoint](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delPointMember()`: Deletes point member

*Usage:*

`GMLMultiPoint$delPointMember(point)`

*Arguments:*

point point object of class [GMLPoint](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

`GMLMultiPoint$clone(deep = FALSE)`

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLMultiPointCoverage *GMLMultiPointCoverage*

---

**Description**

GMLMultiPointCoverage

GMLMultiPointCoverage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML multipoint coverage

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractFeature](#) -> [geometa::GMLAbstractCoverage](#) -> [geometa::GMLAbstractDiscreteCoverage](#)  
-> [GMLMultiPointCoverage](#)

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

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLMultiPointCoverage$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element name  
attrs list of attributes  
defaults list of default values  
wrap wrap element?

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

*Usage:*

GMLMultiPointCoverage\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLMultiSolidCoverage *GMLMultiSolidCoverage*

---

**Description**

GMLMultiSolidCoverage

GMLMultiSolidCoverage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML multisolid coverage

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractFeature](#) -> [geometa::GMLAbstractCoverage](#) -> [geometa::GMLAbstractDiscreteCoverage](#)  
-> [GMLMultiSolidCoverage](#)

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

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLMultiSolidCoverage$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`element` element name

`attrs` list of attributes

`defaults` list of default values

`wrap` wrap element?

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLMultiSurface	<i>GMLMultiSurface</i>
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**Description**

GMLMultiSurface

GMLMultiSurface

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an GML multisurface**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLAbstractGeometry -> geometa::GMLAbstractGeometricAggregate
-> GMLMultiSurface

```

**Public fields**

attrs gml attributes

surfaceMember surface members

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

- [GMLMultiSurface\\$new\(\)](#)
- [GMLMultiSurface\\$addSurfaceMember\(\)](#)
- [GMLMultiSurface\\$delSurfaceMember\(\)](#)
- [GMLMultiSurface\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object*Usage:*[GMLMultiSurface\\$new](#)(xml = NULL, sfg = NULL)*Arguments:*xml object of class [XMLInternalNode-class](#)sfg simple feature geometry resulting from **sf****Method** [addSurfaceMember\(\)](#): Adds surface member*Usage:*[GMLMultiSurface\\$addSurfaceMember](#)(surface)



*Arguments:*

surface surface object of class inheriting [GMLAbstractSurface](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSurfaceMember(): Deletes surface member

*Usage:*

GMLMultiSurface\$delSurfaceMember(surface)

*Arguments:*

surface surface object of class inheriting [GMLAbstractSurface](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLMultiSurface\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLMultiSurfaceCoverage

*GMLMultiSurfaceCoverage*

---

**Description**

GMLMultiSurfaceCoverage

GMLMultiSurfaceCoverage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML multisurface coverage

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractFeature -> geometa::GMLAbstractCoverage -> geometa::GMLAbstractDiscreteCoverage  
-> GMLMultiSurfaceCoverage
```

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

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLMultiSurfaceCoverage$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)  
`element` element name  
`attrs` list of attributes  
`defaults` list of default values  
`wrap` wrap element?

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Class used internally by `geometa`

**Author(s)**

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

## References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLObliqueCartesianCS *GMLObliqueCartesianCS*

---

## Description

GMLObliqueCartesianCS

GMLObliqueCartesianCS

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an GMLObliqueCartesianCS

## Inherited Methods

`new(xml, defaults, id)` This method is used to instantiate a GML Abstract CRS

`addAxis(axis)` Adds an axis, object of class GMLCoordinateSystemAxis

`delAxis(axis)` Deletes an axis, object of class GMLCoordinateSystemAxis

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCoordinateSystem](#)  
-> GMLObliqueCartesianCS

## Methods

### Public methods:

- [GMLObliqueCartesianCS\\$clone\(\)](#)

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

*Usage:*

`GMLObliqueCartesianCS$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

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

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLOperationMethod      *GMLOperationMethod*

---

**Description**

GMLOperationMethod  
 GMLOperationMethod

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLOperationMethod

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> GMLOperationMethod

**Public fields**

formulaCitation [[ISOCitation](#)]  
 formula [[GMLElement](#)]  
 sourceDimensions [[GMLElement](#)]  
 targetDimensions [[GMLElement](#)]  
 parameter [list of [[GMLOperationParameter](#) or [GMLOperationParameterGroup](#)]]

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

- [GMLOperationMethod\\$setFormulaCitation\(\)](#)
- [GMLOperationMethod\\$setFormula\(\)](#)
- [GMLOperationMethod\\$setSourceDimensions\(\)](#)
- [GMLOperationMethod\\$setTargetDimensions\(\)](#)
- [GMLOperationMethod\\$addParameter\(\)](#)
- [GMLOperationMethod\\$delParameter\(\)](#)
- [GMLOperationMethod\\$clone\(\)](#)

**Method** setFormulaCitation(): Sets the formula citation

*Usage:*

GMLOperationMethod\$setFormulaCitation(citation)

*Arguments:*

citation object of class ISOCitation

**Method** setFormula(): Set formula

*Usage:*

GMLOperationMethod\$setFormula(formula)

*Arguments:*

formula formula, object of class [character](#)

**Method** setSourceDimensions(): Set source dimensions

*Usage:*

GMLOperationMethod\$setSourceDimensions(value)

*Arguments:*

value value, object of class [integer](#)

**Method** setTargetDimensions(): Set target dimensions

*Usage:*

GMLOperationMethod\$setTargetDimensions(value)

*Arguments:*

value value, object of class [integer](#)

**Method** addParameter(): Adds a parameter

*Usage:*

GMLOperationMethod\$addParameter(param)

*Arguments:*

param object of class [GMLOperationParameter](#) or [GMLOperationParameterGroup](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delParameter(): Deletes a parameter

*Usage:*

GMLOperationMethod\$delParameter(param)

*Arguments:*

param object of class [GMLOperationParameter](#) or [GMLOperationParameterGroup](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLOperationMethod\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLOperationParameter *GMLOperationParameter*

---

**Description**

GMLOperationParameter

GMLOperationParameter

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLOperationParameter

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractGeneralOperationParameter  
-> GMLOperationParameter
```

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

- [GMLOperationParameter\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLOperationParameterGroup  
*GMLOperationParameterGroup*

---

**Description**

GMLOperationParameterGroup  
 GMLOperationParameterGroup

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLOperationParameterGroup

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractGeneralOperationParameter](#)  
 -> GMLOperationParameterGroup

**Public fields**

maximumOccurs maximumOccurs [0..1]: integer  
 parameter parameter [2..\*]: GMLOperationParameter / GMLOperationParameterGroup

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

- [GMLOperationParameterGroup\\$setMaximumOccurs\(\)](#)
- [GMLOperationParameterGroup\\$addParameter\(\)](#)
- [GMLOperationParameterGroup\\$delParameter\(\)](#)
- [GMLOperationParameterGroup\\$clone\(\)](#)

**Method** [setMaximumOccurs\(\)](#): Set maximum occurs

*Usage:*

[GMLOperationParameterGroup\\$setMaximumOccurs\(maximumOccurs\)](#)

*Arguments:*

maximumOccurs maximumOccurs, object of class [integer](#)

**Method** addParameter(): Adds a parameter

*Usage:*

GMLOperationParameterGroup\$addParameter(param)

*Arguments:*

param object of class [GMLOperationParameter](#) or [GMLOperationParameterGroup](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delParameter(): Deletes a parameter

*Usage:*

GMLOperationParameterGroup\$delParameter(param)

*Arguments:*

param object of class [GMLOperationParameter](#) or [GMLOperationParameterGroup](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLOperationParameterGroup\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLParameterValue      *GMLParameterValue*

---

#### Description

GMLParameterValue

GMLParameterValue

#### Format

[R6Class](#) object.

#### Value

Object of [R6Class](#) for modelling an GML parameter value



**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGeneralParameterValue](#) -> [GMLParameterValue](#)

**Public fields**

value value  
 stringValue string value  
 integerValue integer value  
 booleanValue boolean value  
 valueList value list  
 integerValueList integer value list  
 valueFile value file  
 operationParameter operation parameter

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

- [GMLParameterValue\\$new\(\)](#)
- [GMLParameterValue\\$setValue\(\)](#)
- [GMLParameterValue\\$setStringValue\(\)](#)
- [GMLParameterValue\\$setIntegerValue\(\)](#)
- [GMLParameterValue\\$setBooleanValue\(\)](#)
- [GMLParameterValue\\$setValueFile\(\)](#)
- [GMLParameterValue\\$setOperationParameter\(\)](#)
- [GMLParameterValue\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`GMLParameterValue$new(xml = NULL, defaults = list())`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults default values

**Method** [setValue\(\)](#): Set value

*Usage:*

`GMLParameterValue$setValue(value, uom)`

*Arguments:*

value value, object of class [numeric](#)

uom uom

**Method** [setStringValue\(\)](#): Set string value

*Usage:*

GMLParameterValue\$setStringValue(value)

*Arguments:*

value value

**Method** setIntegerValue(): Set integer value

*Usage:*

GMLParameterValue\$setIntegerValue(value)

*Arguments:*

value value, object of class [integer](#)

**Method** setBooleanValue(): Set boolean value

*Usage:*

GMLParameterValue\$setBooleanValue(value)

*Arguments:*

value object of class [logical](#)

**Method** setValueFile(): Set value file

*Usage:*

GMLParameterValue\$setValueFile(value)

*Arguments:*

value value

**Method** setOperationParameter(): Set operation parameter

*Usage:*

GMLParameterValue\$setOperationParameter(operationParameter)

*Arguments:*

operationParameter object of class [GMLOperationParameter](#)

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

*Usage:*

GMLParameterValue\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

#### **References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

**Examples**

```
gml <- GMLParameterValue$new()
gml$setValue(1.1, "test")
op <- GMLOperationParameter$new()
op$setDescriptionReference("someref")
op$setIdentifier("identifier", "codespace")
op$addName("name1", "codespace")
op$addName("name2", "codespace")
op$setMinimumOccurs(2L)
gml$setOperationParameter(op)
xml <- gml$encode()
```

---

GMLParameterValueGroup

*GMLParameterValueGroup*

---

**Description**

GMLParameterValueGroup

GMLParameterValueGroup

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML parameter value group

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGeneralParameterValue](#) -> GMLParameterValueGroup

**Public fields**

parameterValue parameter value list

group group

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

- [GMLParameterValueGroup\\$new\(\)](#)
- [GMLParameterValueGroup\\$addParameterValue\(\)](#)
- [GMLParameterValueGroup\\$delParameterValue\(\)](#)
- [GMLParameterValueGroup\\$setOperationParameterGroup\(\)](#)

- [GMLParameterValueGroup\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

GMLParameterValueGroup\$new(xml = NULL, defaults = list())

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults default values

**Method addParameterValue():** Adds parameter value

*Usage:*

GMLParameterValueGroup\$addParameterValue(parameterValue)

*Arguments:*

parameterValue parameter value, object of class [GMLParameterValue](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delParameterValue():** Deletes parameter value

*Usage:*

GMLParameterValueGroup\$delParameterValue(parameterValue)

*Arguments:*

parameterValue parameter value, object of class [GMLParameterValue](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setOperationParameterGroup():** Set operation parameter group

*Usage:*

GMLParameterValueGroup\$setOperationParameterGroup(operationParameterGroup)

*Arguments:*

operationParameterGroup operation parameter group

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

*Usage:*

GMLParameterValueGroup\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

### Examples

```
gml <- GMLParameterValueGroup$new()
```

---

GMLPoint

*GMLPoint*

---

### Description

GMLPoint

GMLPoint

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML point

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLAbstractGeometry -> geometa::GMLAbstractGeometricPrimitive
-> GMLPoint
```

### Public fields

pos matrix of positions

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLPoint$new(xml = NULL, sfg = NULL, m = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

sfg simple feature geometry from **sf**

m simple object of class [matrix](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLPolarCS

*GMLPolarCS*

---

**Description**

GMLPolarCS

GMLPolarCS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLPolarCS

**Inherited Methods**

`new(xml, defaults, id)` This method is used to instantiate a GML Abstract CRS

`addAxis(axis)` Adds an axis, object of class GMLCoordinateSystemAxis

`delAxis(axis)` Deletes an axis, object of class GMLCoordinateSystemAxis

**Super classes**

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::GMLAbstractObject`  
-> `geometa::GMLAbstractGML` -> `geometa::GMLDefinition` -> `geometa::GMLAbstractCoordinateSystem`  
-> `GMLPolarCS`

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

- [GMLPolarCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLPolygon

*GMLPoint*

---

**Description**

GMLPoint

GMLPoint

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML point

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)

-> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [geometa::GMLAbstractGeometricPrimitive](#)

-> [geometa::GMLAbstractSurface](#) -> GMLPolygon

**Public fields**

`exterior` list of exterior polygons

`interior` list of interior polygons

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

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

**Method** `new()`: Initializes object

*Usage:*

```
GMLPolygon$new(xml = NULL, sfg)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`sfg` simple object from `sf`

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Experimental

**Author(s)**

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

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLProjectedCRS

*GMLProjectedCRS*

---

**Description**

GMLProjectedCRS

GMLProjectedCRS

**Format**

[R6Class](#) object.



**Value**

Object of [R6Class](#) for modelling an GMLProjectedCRS

**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCRS ->
geometa::GMLAbstractSingleCRS -> geometa::GMLAbstractGeneralDerivedCRS -> GMLProjectedCRS

```

**Public fields**

```

baseGeodeticCRS baseGeodeticCRS [1..1]: GMLGeodeticCRS
cartesianCS cartesianCS [1..1]: GMLCartesianCS

```

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

- [GMLProjectedCRS\\$setBaseGeodeticCRS\(\)](#)
- [GMLProjectedCRS\\$setCartesianCS\(\)](#)
- [GMLProjectedCRS\\$clone\(\)](#)

**Method** [setBaseGeodeticCRS\(\)](#): Set base Geodetic CRS

*Usage:*

```
GMLProjectedCRS$setBaseGeodeticCRS(crs)
```

*Arguments:*

crs crs, object of class [GMLGeodeticCRS](#)

**Method** [setCartesianCS\(\)](#): Set cartesian CRS. Not yet supported

*Usage:*

```
GMLProjectedCRS$setCartesianCS(cs)
```

*Arguments:*

cs cs, object of class [GMLCartesianCRS](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLRectifiedGrid	<i>GMLRectifiedGrid</i>
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---

**Description**

GMLRectifiedGrid  
GMLRectifiedGrid

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML rectified grid

**Methods**

`new(xml, element)` This method is used to instantiate a GML rectified grid  
`setOrigin(x,y)` Set the origin of the rectified grid

**Super classes**

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::GMLAbstractObject`  
-> `geometa::GMLAbstractGML` -> `geometa::GMLAbstractGeometry` -> `geometa::GMLAbstractImplicitGeometry`  
-> `geometa::GMLGrid` -> `GMLRectifiedGrid`

**Public fields**

`origin` origin  
`offsetVector` offset vector

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

- `GMLRectifiedGrid$new()`
- `GMLRectifiedGrid$setOrigin()`
- `GMLRectifiedGrid$addOffsetVector()`
- `GMLRectifiedGrid$delOffsetVector()`
- `GMLRectifiedGrid$clone()`

**Method** `new()`: Initializes object

*Usage:*

`GMLRectifiedGrid$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setOrigin(): Set origin

*Usage:*

GMLRectifiedGrid\$setOrigin(x, y)

*Arguments:*

x x

y y

**Method** addOffsetVector(): Adds offset vector

*Usage:*

GMLRectifiedGrid\$addOffsetVector(vec)

*Arguments:*

vec vec, object of class [vector](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delOffsetVector(): Deletes offset vector

*Usage:*

GMLRectifiedGrid\$delOffsetVector(vec)

*Arguments:*

vec vec, object of class [vector](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLRectifiedGrid\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLRectifiedGridCoverage  
*GMLRectifiedGridCoverage*

---

### Description

GMLRectifiedGridCoverage  
 GMLRectifiedGridCoverage

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML rectified grid coverage

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractFeature](#) -> [geometa::GMLAbstractCoverage](#) -> [geometa::GMLAbstractDiscreteCoverage](#)  
 -> [GMLRectifiedGridCoverage](#)

### Methods

#### Public methods:

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

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLRectifiedGridCoverage$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 element element name  
 attrs list of attributes  
 defaults list of default values  
 wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLReferenceableGridByArray

*GMLReferenceableGridByArray*

---

### Description

GMLReferenceableGridByArray

GMLReferenceableGridByArray

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML ReferenceableGridByArray

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLAbstractGeometry -> geometa::GMLAbstractImplicitGeometry  
-> geometa::GMLGrid -> geometa::GMLAbstractReferenceableGrid -> GMLReferenceableGridByArray
```

### Public fields

generalGridAxis general grid axis

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

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

**Method new():** Initializes object

*Usage:*

```
GMLReferenceableGridByArray$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element name  
attrs list of attributes  
defaults list of default values  
wrap wrap element?

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used internally by geometa

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

OGC GML 3.3 Schema. <http://schemas.opengis.net/gml/3.3/referenceableGrid.xsd>

---

GMLReferenceableGridByTransformation  
*GMLReferenceableGridByTransformation*

---

**Description**

GMLReferenceableGridByTransformation  
 GMLReferenceableGridByTransformation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML ReferenceableGridByTransformation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [geometa::GMLAbstractImplicitGeometry](#)  
 -> [geometa::GMLGrid](#) -> [geometa::GMLAbstractReferenceableGrid](#) -> [GMLReferenceableGridByTransformation](#)

**Public fields**

transformation transformation  
 concatenatedOperation concatenated operation

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

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

**Method new():** Initializes object

*Usage:*

```
GMLReferenceableGridByTransformation$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

element element name  
 attrs list of attributes  
 defaults list of default values  
 wrap wrap element?

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

*Usage:*

GMLReferenceableGridByTransformation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Note

Class used internally by geometa

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

OGC GML 3.3 Schema. <http://schemas.opengis.net/gml/3.3/referenceableGrid.xsd>

---

GMLReferenceableGridByVectors

*GMLReferenceableGridByVectors*

---

### Description

GMLReferenceableGridByVectors

GMLReferenceableGridByVectors

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GML ReferenceableGridByVectors

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractGeometry](#) -> [geometa::GMLAbstractImplicitGeometry](#)  
 -> [geometa::GMLGrid](#) -> [geometa::GMLAbstractReferenceableGrid](#) -> GMLReferenceableGridByVectors



**Public fields**

origin origin  
generalGridAxis general grid axis

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

- [GMLReferenceableGridByVectors\\$new\(\)](#)
- [GMLReferenceableGridByVectors\\$setOrigin\(\)](#)
- [GMLReferenceableGridByVectors\\$addGeneralGridAxis\(\)](#)
- [GMLReferenceableGridByVectors\\$delGeneralGridAxis\(\)](#)
- [GMLReferenceableGridByVectors\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
GMLReferenceableGridByVectors$new(  
  xml = NULL,  
  element = NULL,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
element element name  
attrs list of attributes  
defaults list of default values  
wrap wrap element?

**Method setOrigin():** Set origin

*Usage:*

```
GMLReferenceableGridByVectors$setOrigin(coords)
```

*Arguments:*

coords coords, object of class [list](#)

**Method addGeneralGridAxis():** Adds general grid axis

*Usage:*

```
GMLReferenceableGridByVectors$addGeneralGridAxis(axis)
```

*Arguments:*

axis object of class [GMLGeneralGridAxis](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delGeneralGridAxis():** Deletes general grid axis

*Usage:*

GMLReferenceableGridByVectors\$delGeneralGridAxis(axis)

*Arguments:*

axis object of class [GMLGeneralGridAxis](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

GMLReferenceableGridByVectors\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used internally by geometa

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

OGC GML 3.3 Schema. <http://schemas.opengis.net/gml/3.3/referenceableGrid.xsd>

---

GMLSphericalCS

*GMLSphericalCS*

---

**Description**

GMLSphericalCS

GMLSphericalCS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLSphericalCS

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCoordinateSystem](#)  
 -> GMLSphericalCS

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

- [GMLSphericalCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLTemporalCRS

*GMLTemporalCRS*

---

**Description**

GMLTemporalCRS

GMLTemporalCRS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLTemporalCRS

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCRS ->
geometa::GMLAbstractSingleCRS -> GMLTemporalCRS
```

**Public fields**

`timeCS` time CS

`temporalDatum` temporal datum

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

- [GMLTemporalCRS\\$setTimeCS\(\)](#)
- [GMLTemporalCRS\\$setTemporalDatum\(\)](#)
- [GMLTemporalCRS\\$clone\(\)](#)

**Method** setTimeCS(): Set time CS*Usage:*

GMLTemporalCRS\$setTimeCS(timeCS)

*Arguments:*

timeCS time CS, object of class [GMLTimeCS](#)

**Method** setTemporalDatum(): Set temporal datum*Usage:*

GMLTemporalCRS\$setTemporalDatum(temporalDatum)

*Arguments:*

temporalDatum temporal datum

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

GMLTemporalCRS\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLTemporalCS

*GMLTemporalCS*

---

**Description**

GMLTemporalCS

GMLTemporalCS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLTemporalCS

**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCoordinateSystem
-> GMLTemporalCS

```

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

- [GMLTemporalCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)  
 OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLTimeCS

*GMLTimeCS*

---

**Description**

GMLTimeCS

GMLTimeCS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLTimeCS

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCoordinateSystem](#)  
 -> GMLTimeCS

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

- [GMLTimeCS\\$clone\(\)](#)

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

*Usage:*

`GMLTimeCS$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLTimeInstant

*GMLTimeInstant*

---

**Description**

GMLTimeInstant

GMLTimeInstant

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLTimeInstant

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
 -> [geometa::GMLAbstractGML](#) -> [geometa::GMLAbstractTimeObject](#) -> [geometa::GMLAbstractTimePrimitive](#)  
 -> [geometa::GMLAbstractTimeGeometricPrimitive](#) -> GMLTimeInstant

**Public fields**

timePosition [[numeric](#)|[Date](#)|[POSIXt](#)]

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

- [GMLTimeInstant\\$new\(\)](#)
- [GMLTimeInstant\\$setTimePosition\(\)](#)
- [GMLTimeInstant\\$toISOFormat\(\)](#)
- [GMLTimeInstant\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLTimeInstant$new(xml = NULL, timePosition)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

timePosition time position

**Method** [setTimePosition\(\)](#): Sets the position (date or date and time of the resource contents),

*Usage:*

```
GMLTimeInstant$setTimePosition(timePosition)
```

*Arguments:*

timePosition object of class "numeric", "POSIXct"/"POSIXt" or "Date"

**Method** [toISOFormat\(\)](#): Export to ISO format ([character](#))

*Usage:*

```
GMLTimeInstant$toISOFormat()
```

*Returns:* a [character](#) in ISO format

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**Examples**

```
time <- ISOdate(2000, 1, 12, 12, 59, 45)
md <- GMLTimeInstant$new(timePosition = time)
xml <- md$encode()
```

---

GMLTimePeriod

*GMLTimePeriod*


---

**Description**

GMLTimePeriod

GMLTimePeriod

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an GMLTimePeriod

**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLAbstractTimeObject -> geometa::GMLAbstractTimePrimitive
-> geometa::GMLAbstractTimeGeometricPrimitive -> GMLTimePeriod

```

**Public fields**

beginPosition beginPosition [1]: 'POSIXct','POSIXt'

endPosition endPosition [1]: 'POSIXct','POSIXt'

duration duration [0..1]: character

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

- GMLTimePeriod\$new()
- GMLTimePeriod\$setBeginPosition()
- GMLTimePeriod\$setEndPosition()
- GMLTimePeriod\$computeInterval()
- GMLTimePeriod\$setDuration()
- GMLTimePeriod\$clone()

**Method new():** Initializes object*Usage:*

GMLTimePeriod\$new(xml = NULL, beginPosition = NULL, endPosition = NULL)

*Arguments:*

xml object of class XMLInternalNode-class

beginPosition object of class numeric, Date or POSIXct-class



endPosition object of class [numeric](#), [Date](#) or [POSIXct-class](#)

**Method** setBeginPosition(): Set begin position

*Usage:*

```
GMLTimePeriod$setBeginPosition(beginPosition)
```

*Arguments:*

beginPosition object of class [numeric](#), [Date](#) or [POSIXct-class](#)

**Method** setEndPosition(): Set end position

*Usage:*

```
GMLTimePeriod$setEndPosition(endPosition)
```

*Arguments:*

endPosition object of class [numeric](#), [Date](#) or [POSIXct-class](#)

**Method** computeInterval(): Compute interval (ISO defined duration) and set proper attribute for XML encoding. The method calls the static function `GMLTimePeriod$computeISODuration`

*Usage:*

```
GMLTimePeriod$computeInterval()
```

**Method** setDuration(): Set ISO duration

*Usage:*

```
GMLTimePeriod$setDuration(  
  years = 0,  
  months = 0,  
  days = 0,  
  hours = 0,  
  mins = 0,  
  secs = 0  
)
```

*Arguments:*

years years

months months

days days

hours hours

mins mins

secs secs

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**Examples**

```
start <- ISOdate(2000, 1, 12, 12, 59, 45)
end <- ISOdate(2010, 8, 22, 13, 12, 43)
md <- GMLTimePeriod$new(beginPosition = start, endPosition = end)
xml <- md$encode()
```

---

GMLUnitDefinition	<i>GMLUnitDefinition</i>
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---

**Description**

GMLUnitDefinition

GMLUnitDefinition

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML unit definition

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> GMLUnitDefinition

**Public fields**

quantityTypeReference quantityTypeReference [0..1]: character

catalogSymbol catalogSymbol [0..1]: character

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

- [GMLUnitDefinition\\$new\(\)](#)
- [GMLUnitDefinition\\$setQuantityTypeReference\(\)](#)
- [GMLUnitDefinition\\$setCatalogSymbol\(\)](#)
- [GMLUnitDefinition\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
GMLUnitDefinition$new(xml = NULL, defaults = list(), id = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults list of default values

id id

**Method** `setQuantityTypeReference()`: Set quantity type reference. Content is reference to a remote value

*Usage:*

```
GMLUnitDefinition$setQuantityTypeReference(quantityTypeReference)
```

*Arguments:*

quantityTypeReference quantity type reference

**Method** `setCatalogSymbol()`: Set catalog symbol

*Usage:*

```
GMLUnitDefinition$setCatalogSymbol(catalogSymbol)
```

*Arguments:*

catalogSymbol catalog symbol, preferred lexical symbol used for this unit of measure

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

**Examples**

```
gml <- GMLUnitDefinition$new()
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
```

---

GMLUserDefinedCS	<i>GMLUserDefinedCS</i>
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---

**Description**

GMLUserDefinedCS

GMLUserDefinedCS

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GMLUserDefinedCS

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject  
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCoordinateSystem  
-> GMLUserDefinedCS
```

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

- [GMLUserDefinedCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

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GMLVerticalCRS	<i>GMLVerticalCRS</i>
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---

**Description**

GMLVerticalCRS

GMLVerticalCRS

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an GMLVerticalCRS**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> [geometa::GMLAbstractGML](#) -> [geometa::GMLDefinition](#) -> [geometa::GMLAbstractCRS](#) ->  
[geometa::GMLAbstractSingleCRS](#) -> GMLVerticalCRS

**Public fields**verticalCS [[GMLVerticalCS](#)]verticalDatum [[GMLVerticalDatum](#)]**Methods****Public methods:**

- [GMLVerticalCRS\\$setVerticalCS\(\)](#)
- [GMLVerticalCRS\\$setVerticalDatum\(\)](#)
- [GMLVerticalCRS\\$clone\(\)](#)

**Method** [setVerticalCS\(\)](#): Set vertical CS*Usage:*[GMLVerticalCRS\\$setVerticalCS\(verticalCS\)](#)*Arguments:*verticalCS object of class [GMLVerticalCS](#)**Method** [setVerticalDatum\(\)](#): Set vertical datum. not yet supported*Usage:*[GMLVerticalCRS\\$setVerticalDatum\(verticalDatum\)](#)*Arguments:*verticalDatum object of class [GMLVerticalDatum](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

GMLVerticalCS

*GMLVerticalCS*

---

### Description

GMLVerticalCS

GMLVerticalCS

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an GMLVerticalCS

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLAbstractObject
-> geometa::GMLAbstractGML -> geometa::GMLDefinition -> geometa::GMLAbstractCoordinateSystem
-> GMLVerticalCS
```

### Methods

#### Public methods:

- [GMLVerticalCS\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19136:2007 Geographic Information – Geographic Markup Language. [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_t](http://www.iso.org/iso/iso_catalogue/catalogue_t)

OGC Geography Markup Language. <http://www.opengeospatial.org/standards/gml>

---

INSPIREMetadataValidator

*INSPIREMetadataValidator*

---

**Description**

INSPIREMetadataValidator

INSPIREMetadataValidator

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for setting an INSPIREMetadataValidator

**Super class**

[geometa::geometaLogger](#) -> INSPIREMetadataValidator

**Public fields**

url url of the INSPIRE metadata validator

running wether the service is up and running

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

- [INSPIREMetadataValidator\\$new\(\)](#)
- [INSPIREMetadataValidator\\$uploadFile\(\)](#)
- [INSPIREMetadataValidator\\$getAPIKey\(\)](#)
- [INSPIREMetadataValidator\\$getValidationReport\(\)](#)
- [INSPIREMetadataValidator\\$clone\(\)](#)

**Method new():** Method used to instantiate an INSPIRE Metadata validator. To check metadata with the INSPIRE metadata validator, a user API key is now required, and should be specified with the apiKey. By default, the url will be the INSPIRE production service <https://inspire.ec.europa.eu/validator/swagger-ui.html>.

The keyring\_backend can be set to use a different backend for storing the INSPIRE metadata validator API key with **keyring** (Default value is 'env').

*Usage:*

```
INSPIREMetadataValidator$new(
  url = "https://inspire.ec.europa.eu/validator/v2",
  apiKey,
  keyring_backend = "env"
)
```

*Arguments:*

url url

apiKey API key

keyring\_backend backend name to use with **keyring** to store API key

**Method uploadFile():** Uploads a file. Upload a XML metadata file to INSPIRE web-service. Method called internally through getValidationReport.

*Usage:*

```
INSPIREMetadataValidator$uploadFile(path)
```

*Arguments:*

path path

*Returns:* the response from the web-service

**Method getAPIKey():** Retrieves the API key

*Usage:*

```
INSPIREMetadataValidator$getAPIKey()
```

*Returns:* the API key as [character](#)

**Method getValidationReport():** Get validation report for a metadata specified either as R object of class [ISOMetadata](#) (from **geometa** package) or [XMLInternalNode-class](#) (from **XML** package), or as XML file, providing the path of the XML file to be sent to the INSPIRE metadata validator web-service. By default, a summary report is returned. To append the raw response of INSPIRE validation web-service to the summary report, set raw = TRUE.

*Usage:*

```
INSPIREMetadataValidator$getValidationReport(
  obj = NULL,
  file = NULL,
  raw = FALSE
)
```

*Arguments:*

obj obj

file file



```
raw raw
```

*Returns:* an object of class [list](#)

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

*Usage:*

```
INSPIREMetadataValidator$new$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

INSPIRE Reference Validator Web Service (<https://inspire.ec.europa.eu/validator/swagger-ui.html>)

### Examples

```
apiKey <- ""
if(nzchar(apiKey)){
  inspireValidator <- INSPIREMetadataValidator$new(apiKey = apiKey)
  inspireReport <- inspireValidator$getValidationReport(obj = ISOMetadata$new())
}
```

---

ISOAbsoluteExternalPositionalAccuracy

*ISOAbsoluteExternalPositionalAccuracy*

---

### Description

ISOAbsoluteExternalPositionalAccuracy

ISOAbsoluteExternalPositionalAccuracy

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOAbsoluteExternalPositionalAccuracy

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISODataQualityAbstractElement
-> geometa::ISOAbstractPositionalAccuracy -> ISOAbsoluteExternalPositionalAccuracy
```

## Methods

### Public methods:

- [ISOAbsoluteExternalPositionalAccuracy\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
#encoding
dq <- ISOAbsoluteExternalPositionalAccuracy$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```

---

ISOAbstractAggregate *ISOAbstractAggregate*

---

### Description

ISOAbstractAggregate

ISOAbstractAggregate

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOAbstractAggregate

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAbstractAggregate

### Public fields

composedOf composedOf [1..\*]

seriesMetadata seriesMetadata [1..\*]

subset subset [0..\*]

superset superset [0..\*]

### Methods

#### Public methods:

- [ISOAbstractAggregate\\$new\(\)](#)
- [ISOAbstractAggregate\\$addComposedOf\(\)](#)
- [ISOAbstractAggregate\\$delComposedOf\(\)](#)
- [ISOAbstractAggregate\\$addSeriesMetadata\(\)](#)
- [ISOAbstractAggregate\\$delSeriesMetadata\(\)](#)
- [ISOAbstractAggregate\\$addSubset\(\)](#)
- [ISOAbstractAggregate\\$delSubset\(\)](#)
- [ISOAbstractAggregate\\$addSuperset\(\)](#)
- [ISOAbstractAggregate\\$delSuperset\(\)](#)
- [ISOAbstractAggregate\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOAbstractAggregate\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** addComposedOf(): Adds a dataset 'composedOf' relationship

*Usage:*

ISOAbstractAggregate\$addComposedOf(composedOf)

*Arguments:*

composedOf object of class [ISODataset](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delComposedOf(): Deletes a dataset 'composedOf' relationship

*Usage:*

ISOAbstractAggregate\$delComposedOf(composedOf)

*Arguments:*

composedOf object of class [ISODataset](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addSeriesMetadata(): Adds a series metadata

*Usage:*

ISOAbstractAggregate\$addSeriesMetadata(metadata)

*Arguments:*

metadata object of class [ISOMetadata](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSeriesMetadata(): Deletes a series metadata

*Usage:*

ISOAbstractAggregate\$delSeriesMetadata(metadata)

*Arguments:*

metadata object of class [ISOMetadata](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** addSubset(): Adds subset

*Usage:*

ISOAbstractAggregate\$addSubset(subset)

*Arguments:*

subset object of class inheriting [ISOAbstractAggregate](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSubset(): Deletes subset

*Usage:*

ISOAbstractAggregate\$delSubset(subset)

*Arguments:*

subset object of class inheriting [ISOAbstractAggregate](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addSuperset(): Adds superset

*Usage:*

ISOAbstractAggregate\$addSuperset(superset)

*Arguments:*

superset object of class inheriting [ISOAbstractAggregate](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSuperset(): Deletes superset

*Usage:*

ISOAbstractAggregate\$delSuperset(superset)

*Arguments:*

superset object of class inheriting [ISOAbstractAggregate](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOAbstractAggregate\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

abstract class

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

 ISOAbstractCarrierOfCharacteristics

*ISOAbstractCarrierOfCharacteristics*


---

**Description**

ISOAbstractCarrierOfCharacteristics

ISOAbstractCarrierOfCharacteristics

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an abstract ISOCarrierOfCharacteristics**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAbstractCarrierOfCharacteristics**Public fields**

featureType featureType [0..1]: ISOFeatureType

constrainedBy constrainedBy [0..\*]: ISOConstraint

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

- [ISOAbstractCarrierOfCharacteristics\\$new\(\)](#)
- [ISOAbstractCarrierOfCharacteristics\\$setFeatureType\(\)](#)
- [ISOAbstractCarrierOfCharacteristics\\$addConstraint\(\)](#)
- [ISOAbstractCarrierOfCharacteristics\\$delConstraint\(\)](#)
- [ISOAbstractCarrierOfCharacteristics\\$clone\(\)](#)

**Method new():** Initializes object*Usage:*

ISOAbstractCarrierOfCharacteristics\$new(xml = NULL, defaults = NULL)

*Arguments:*xml object of class [XMLInternalNode-class](#)

defaults default values

**Method setFeatureType():** Set feature type*Usage:*

ISOAbstractCarrierOfCharacteristics\$setFeatureType(featureType)

*Arguments:*

featureType feature type, object of class [ISOFeatureType](#)

**Method** addConstraint(): Adds constraint

*Usage:*

ISOAbstractCarrierOfCharacteristics\$addConstraint(constraint)

*Arguments:*

constraint, object of class [ISOConstraint](#)

*Returns:* TRUE if added, [FALSE](#) otherwise

**Method** delConstraint(): Deletes constraint

*Usage:*

ISOAbstractCarrierOfCharacteristics\$delConstraint(constraint)

*Arguments:*

constraint, object of class [ISOConstraint](#)

*Returns:* TRUE if deleted, [FALSE](#) otherwise

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

*Usage:*

ISOAbstractCarrierOfCharacteristics\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

abstract class

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOAbstractCatalogue *ISOAbstractCatalogue*

---

### Description

ISOAbstractCatalogue

ISOAbstractCatalogue

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOAbstracCatalogue

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAbstractCatalogue

### Public fields

name name [1..1]: character

scope scope [1..\*]: character

fieldOfApplication fieldOfApplication [0..\*]: character

versionNumber versionNumber [1..1]: character

versionDate versionDate [1..1]: Date/Posix

language language [0..1]: character

characterSet character set [0..1]: character

locale locale [0..\*]: ISOLocale

subCatalogue subCatalogue [0..\*]: ISOAbstractCatalogue

### Methods

#### Public methods:

- [ISOAbstractCatalogue\\$new\(\)](#)
- [ISOAbstractCatalogue\\$setName\(\)](#)
- [ISOAbstractCatalogue\\$addScope\(\)](#)
- [ISOAbstractCatalogue\\$delScope\(\)](#)
- [ISOAbstractCatalogue\\$addFieldOfApplication\(\)](#)
- [ISOAbstractCatalogue\\$delFieldOfApplication\(\)](#)
- [ISOAbstractCatalogue\\$setVersionNumber\(\)](#)
- [ISOAbstractCatalogue\\$setVersionDate\(\)](#)



- [ISOAbstractCatalogue\\$setLanguage\(\)](#)
- [ISOAbstractCatalogue\\$setCharacterSet\(\)](#)
- [ISOAbstractCatalogue\\$addLocale\(\)](#)
- [ISOAbstractCatalogue\\$delLocale\(\)](#)
- [ISOAbstractCatalogue\\$addSubCatalogue\(\)](#)
- [ISOAbstractCatalogue\\$delSubCatalogue\(\)](#)
- [ISOAbstractCatalogue\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISOAbstractCatalogue\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setName():** Sets the name. Locale names can be specified as

*Usage:*

ISOAbstractCatalogue\$setName(name, locales = NULL)

*Arguments:*

name name

locales locales, object of class [list](#)

**Method addScope():** Adds scope

*Usage:*

ISOAbstractCatalogue\$addScope(scope, locales = NULL)

*Arguments:*

scope scope

locales locales, object of class [list](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delScope():** Deletes scope

*Usage:*

ISOAbstractCatalogue\$delScope(scope, locales = NULL)

*Arguments:*

scope scope

locales locales, object of class [list](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addFieldOfApplication():** Adds field of application

*Usage:*

ISOAbstractCatalogue\$addFieldOfApplication(fieldOfApplication, locales = NULL)

*Arguments:*

fieldOfApplication field of application

locales locales, object of class [list](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delFieldOfApplication():** Deletes field of application

*Usage:*

ISOAbstractCatalogue\$delFieldOfApplication(fieldOfApplication)

*Arguments:*

fieldOfApplication field of application

locales locales, object of class [list](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setVersionNumber():** Set version number

*Usage:*

ISOAbstractCatalogue\$setVersionNumber(versionNumber)

*Arguments:*

versionNumber version number

**Method setVersionDate():** Set version date

*Usage:*

ISOAbstractCatalogue\$setVersionDate(versionDate)

*Arguments:*

versionDate version date

**Method setLanguage():** Set language

*Usage:*

ISOAbstractCatalogue\$setLanguage(locale)

*Arguments:*

locale object of class [ISOLanguage](#) or any [character](#) from values returned by [ISOLanguages\\$values\(\)](#)

**Method setCharacterSet():** Set charset

*Usage:*

ISOAbstractCatalogue\$setCharacterSet(charset)

*Arguments:*

charset object of class [ISOCharacterSet](#) or any [character](#) from values returned by [ISOCharacterSet\\$values\(\)](#)

**Method addLocale():** Adds locale

*Usage:*

ISOAbstractCatalogue\$addLocale(locale)

*Arguments:*

locale object of class [ISOLocale](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delLocale():** Deletes locale

*Usage:*

ISOAbstractCatalogue\$delLocale(locale)

*Arguments:*

locale object of class [ISOLocale](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addSubCatalogue():** Add sub catalogue

*Usage:*

ISOAbstractCatalogue\$addSubCatalogue(subCatalogue)

*Arguments:*

subCatalogue object of class [ISOAbstractCatalogue](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delSubCatalogue():** Deletes sub catalogue

*Usage:*

ISOAbstractCatalogue\$delSubCatalogue(subCatalogue)

*Arguments:*

subCatalogue object of class [ISOAbstractCatalogue](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOAbstractCatalogue\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19139:2007 Metadata - XML schema implementation

---

ISOAbstractCompleteness

*ISOAbstractCompleteness*

---

### Description

ISOAbstractCompleteness

ISOAbstractCompleteness

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOAbstractCompleteness

### Super classes

[geometa: :geometaLogger](#) -> [geometa: :ISOAbstractObject](#) -> [geometa: :ISODataQualityAbstractElement](#)  
-> ISOAbstractCompleteness

### Methods

#### Public methods:

- [ISOAbstractCompleteness\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

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

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOAbstractGenericName

*ISOAbstractGenericName*

---

## Description

ISOAbstractGenericName

ISOAbstractGenericName

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO abstract GenericName

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLCodeType](#) -> ISOAbstractGenericName

## Public fields

value value

## Methods

### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

`ISOAbstractGenericName$new(xml = NULL, value = NULL, codeSpace = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`value` value

`codeSpace` code space

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

*Usage:*

`ISOAbstractGenericName$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOAbstractLogicalConsistency

*ISOAbstractLogicalConsistency*

---

**Description**

ISOAbstractLogicalConsistency

ISOAbstractLogicalConsistency

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOAbstractLogicalConsistency

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> ISOAbstractLogicalConsistency

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

- [ISOAbstractLogicalConsistency\\$clone\(\)](#)

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

*Usage:*

`ISOAbstractLogicalConsistency$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOAbstractObject	<i>ISOAbstractObject</i>
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---

**Description**

ISOAbstractObject

ISOAbstractObject

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO Metadata Element**Static Methods**

`getISOStandardByPrefix(prefix)` Inherit the ISO (and/or OGC) standard reference for a given standard prefix (e.g. GMD). The object returned is a `data.frame` containing the specification reference and title.

`getISOStandard(clazz)` Inherit the ISO (and/or OGC) standard reference for a given **geometa** class. The object returned is a `data.frame` containing the specification reference and title.

`getISOClasses(extended, pretty)` Get the list of classes supported by **geometa**. By default, `extended` is set to `FALSE` (restrained to **geometa** environment). If `TRUE`, this allows to list eventual classes loaded in your global environment and that extend **geometa** classes. The argument `pretty` gives a the list of classes and associated ISO/OGC standard information as `data.frame`.

`getISOClassByNode(node)` Inherit the ISO class matching an XML document or node

`compare(metadataElement1, metadataElement2)` Compares two metadata elements objects. Returns `TRUE` if they are equal, `FALSE` otherwise. The comparison of object is done by comparing the XML representation of the objects (since no R6 object comparison method seems to exist)

**Super class**[geometa::geometaLogger](#) -> ISOAbstractObject**Public fields**

wrap wrap

element element

namespace namespace

defaults defaults

attrs attributes

printAttrs attributes to print  
 parentAttrs parent attributes  
 value value  
 value\_as\_field value as field?  
 isNull is null?  
 anyElement any element?

## Methods

### Public methods:

- ISOAbstractObject\$new()
- ISOAbstractObject#print()
- ISOAbstractObject\$decode()
- ISOAbstractObject\$encode()
- ISOAbstractObject\$validate()
- ISOAbstractObject\$save()
- ISOAbstractObject\$getNamespaceDefinition()
- ISOAbstractObject\$getClassname()
- ISOAbstractObject\$getClass()
- ISOAbstractObject\$wrapBaseElement()
- ISOAbstractObject\$setIsNull()
- ISOAbstractObject\$contains()
- ISOAbstractObject\$addListElement()
- ISOAbstractObject\$delListElement()
- ISOAbstractObject\$setAttr()
- ISOAbstractObject\$addFieldAttrs()
- ISOAbstractObject\$setId()
- ISOAbstractObject\$setHref()
- ISOAbstractObject\$setCodeList()
- ISOAbstractObject\$setCodeListValue()
- ISOAbstractObject\$setCodeSpace()
- ISOAbstractObject\$setValue()
- ISOAbstractObject\$isDocument()
- ISOAbstractObject\$isFieldInheritedFrom()
- ISOAbstractObject\$createLocalisedProperty()

**Method new():** Initializes object

*Usage:*

```

ISOAbstractObject$new(
  xml = NULL,
  element = NULL,
  namespace = NULL,
  attrs = list(),

```



```

    defaults = list(),
    wrap = TRUE,
    value_as_field = FALSE
)

```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 element element name  
 namespace namespace  
 attrs attrs  
 defaults defaults  
 wrap wrap?  
 value\_as\_field value as field?

**Method print():** Provides a custom print output (as tree) of the current class

*Usage:*

```
ISOAbstractObject$print(..., depth = 1, add_codelist_description = TRUE)
```

*Arguments:*

... args  
 depth class nesting depth  
 add\_codelist\_description Add codelist description. Default is TRUE

**Method decode():** Decodes object from XML

*Usage:*

```
ISOAbstractObject$decode(xml)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method encode():** Encodes object as XML.

By default, namespace definition will be added to XML root (addNS = TRUE), and validation of object will be performed (validate = TRUE) prior to its XML encoding. The argument strict allows to stop the encoding in case object is not valid, with a default value set to FALSE.

The argument setSerialID is used by **geometa** to generate automatically serial IDs associated to XML elements, in particular for GML, default value is TRUE (recommended value).

The argument resetSerialID is used by **geometa** for resetting mandatory IDs associated to XML elements, such as GML objects, default value is TRUE (recommended value).

Setting inspire to TRUE (default FALSE), the metadata will be checked with the INSPIRE metadata validator (online web-service provided by INSPIRE). To check metadata with the INSPIRE metadata validator, setting an INSPIRE metadata validator is now required, and should be specified with the inspireValidator. See [INSPIREMetadataValidator](#) for more details

*Usage:*

```
ISOAbstractObject$encode(
  addNS = TRUE,
  validate = TRUE,
  strict = FALSE,

```

```

    inspire = FALSE,
    inspireValidator = NULL,
    resetSerialID = TRUE,
    setSerialID = TRUE,
    encoding = "UTF-8"
)

```

*Arguments:*

addNS add namespace? Default is TRUE

validate validate XML output against schemas?

strict strict validation? Default is FALSE.

inspire perform INSPIRE validation? Default is FALSE

inspireValidator an object of class [INSPIREMetadataValidator](#) to perform INSPIRE meta-data validation

resetSerialID reset Serial ID? Default is TRUE

setSerialID set serial ID? Default is TRUE

encoding encoding. Default is UTF-8

**Method validate():** Validates an XML object resulting from object encoding

*Usage:*

```

ISOAbstractObject$validate(
  xml = NULL,
  strict = FALSE,
  inspire = FALSE,
  inspireValidator = NULL
)

```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

strict strict validation? If TRUE, a invalid XML will return an error

inspire perform INSPIRE validation? Default is FALSE

inspireValidator an object of class [INSPIREMetadataValidator](#) to perform INSPIRE meta-data validation

*Returns:* TRUE if valid, FALSE otherwise

**Method save():** Save XML representation resulting from \$encode(...) method to a file

*Usage:*

```

ISOAbstractObject$save(file, ...)

```

*Arguments:*

file file

... any other argument from \$encode(...) method

**Method getNamespaceDefinition():** Get namespace definition

*Usage:*

```

ISOAbstractObject$getNamespaceDefinition(recursive = FALSE)

```

*Arguments:*

recursive recursive namespace definitions? Default is FALSE

*Returns:* the list of XML namespace definitions

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

*Usage:*

`ISOAbstractObject$getClassName(level = 1L)`

*Arguments:*

level level of class

*Returns:* the class name

**Method** `getClass()`: Get class

*Usage:*

`ISOAbstractObject$getClass()`

*Returns:* the corresponding class, as [R6Class](#) reference object generator

**Method** `wrapBaseElement()`: Wraps base element

*Usage:*

`ISOAbstractObject$wrapBaseElement(field, fieldObj)`

*Arguments:*

field field name

fieldObj field object

an object of class [R6Class](#)

**Method** `setIsNull()`: Set Is Null

*Usage:*

`ISOAbstractObject$setIsNull(isNull, reason = "missing")`

*Arguments:*

isNull object of class [logical](#)

reason reason why object is Null

**Method** `contains()`: Util to know if a field contain a metadata element

*Usage:*

`ISOAbstractObject$contains(field, metadataElement)`

*Arguments:*

field field name

metadataElement metadata element

*Returns:* TRUE if contains, FALSE otherwise

**Method** `addListElement()`: Util to add an element to a list of elements for N cardinality of a target element name

*Usage:*

ISOAbstractObject\$addListElement(field, metadataElement)

*Arguments:*

field field

metadataElement metadata element

*Returns:* TRUE if added, FALSE otherwise

**Method delListElement():** Util to deleted an element to a list of elements for N cardinality of a target element name

*Usage:*

ISOAbstractObject\$delListElement(field, metadataElement)

*Arguments:*

field field

metadataElement metadata element

*Returns:* TRUE if deleted, FALSE otherwise

**Method setAttr():** Util to set an attribute

*Usage:*

ISOAbstractObject\$setAttr(attrKey, attrValue)

*Arguments:*

attrKey attribute key

attrValue attribute value

**Method addFieldAttrs():** Util add field attributes, over the XML field wrapping element instead of the element itself

*Usage:*

ISOAbstractObject\$addFieldAttrs(field, ...)

*Arguments:*

field field

... list of attributes

**Method setId():** Set id

*Usage:*

ISOAbstractObject\$setId(id, addNS = FALSE)

*Arguments:*

id id

addNS add namespace definition? Default is FALSE

**Method setHref():** Set Href attribute

*Usage:*

ISOAbstractObject\$setHref(href)

*Arguments:*

href href

**Method** `setCodeList()`: Set codelist attribute

*Usage:*

`ISOAbstractObject$setCodeList(codelist)`

*Arguments:*

`codelist` codelist

**Method** `setCodeListValue()`: Set codelist value

*Usage:*

`ISOAbstractObject$setCodeListValue(codelistValue)`

*Arguments:*

`codelistValue` codelist value

**Method** `setCodeSpace()`: Set codeSpace

*Usage:*

`ISOAbstractObject$setCodeSpace(codeSpace)`

*Arguments:*

`codeSpace` codespace

**Method** `setValue()`: Set value

*Usage:*

`ISOAbstractObject$setValue(value)`

*Arguments:*

`value` value

**Method** `isDocument()`: Util to check where object refers to a emetadata document (eg. [ISOMeta-data](#) or [ISOFeatureCatalogue](#))

*Usage:*

`ISOAbstractObject$isDocument()`

*Returns:* TRUE if a document, FALSE otherwise

**Method** `isFieldInheritedFrom()`: Indicates the class a field inherits from

*Usage:*

`ISOAbstractObject$isFieldInheritedFrom(field)`

*Arguments:*

`field` field

*Returns:* an object generator of class [R6Class](#)

**Method** `createLocalisedProperty()`: Creates a localised property

*Usage:*

`ISOAbstractObject$createLocalisedProperty(text, locales)`

*Arguments:*

`text` text

`locales` a list of localized names

**Note**

Abstract ISO Metadata class used internally by geometa

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

---

ISOAbstractPositionalAccuracy

*ISOAbstractPositionalAccuracy*

---

**Description**

ISOAbstractPositionalAccuracy

ISOAbstractPositionalAccuracy

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOAbstractPositionalAccuracy

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [ISOAbstractPositionalAccuracy](#)

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

- [ISOAbstractPositionalAccuracy\\$clone\(\)](#)

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

*Usage:*

[ISOAbstractPositionalAccuracy\\$clone\(deep = FALSE\)](#)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOAbstractPropertyType  
*ISOAbstractPropertyType*

---

### Description

ISOAbstractPropertyType  
ISOAbstractPropertyType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOAbstractPropertyType

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractCarrierOfCharacteristics](#)  
-> ISOAbstractPropertyType

### Public fields

memberName typeName [1..1]: ISOLocalName  
definition definition [0..1]: character  
cardinality cardinality [1..1]: ISOMultiplicity  
definitionReference definitionReference [0..1]  
featureCatalogue featureCatalogue [0..1]

### Methods

#### Public methods:

- [ISOAbstractPropertyType\\$new\(\)](#)
- [ISOAbstractPropertyType\\$setMemberName\(\)](#)
- [ISOAbstractPropertyType\\$setDefinition\(\)](#)
- [ISOAbstractPropertyType\\$setCardinality\(\)](#)
- [ISOAbstractPropertyType\\$setDefinitionReference\(\)](#)
- [ISOAbstractPropertyType\\$setFeatureCatalogue\(\)](#)
- [ISOAbstractPropertyType\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOAbstractPropertyType\\$new\(xml = NULL, defaults = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
defaults default values

**Method** setMemberName(): Set member name

*Usage:*

ISOAbstractPropertyType\$setMemberName(memberName)

*Arguments:*

memberName member name object of class [character](#) or [ISOLocalName](#)

**Method** setDefinition(): Set definition

*Usage:*

ISOAbstractPropertyType\$setDefinition(definition, locales = NULL)

*Arguments:*

definition definition  
locales locale definitions, as [list](#)

**Method** setCardinality(): Set cardinality

*Usage:*

ISOAbstractPropertyType\$setCardinality(lower, upper)

*Arguments:*

lower lower  
upper upper

**Method** setDefinitionReference(): Set definition reference

*Usage:*

ISOAbstractPropertyType\$setDefinitionReference(definitionReference)

*Arguments:*

definitionReference object of class [ISODefinitionReference](#)

**Method** setFeatureCatalogue(): Set feature catalogue

*Usage:*

ISOAbstractPropertyType\$setFeatureCatalogue(featureCatalogue)

*Arguments:*

featureCatalogue object of class [ISOFeatureCatalogue](#)

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

*Usage:*

ISOAbstractPropertyType\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.



**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOAbstractReferenceSystem

*ISOAbstractReferenceSystem*

---

**Description**

ISOAbstractReferenceSystem

ISOAbstractReferenceSystem

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO abstract RS Reference system

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAbstractReferenceSystem

**Public fields**

name name

domainOfValidity domain of validity

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

- [ISOAbstractReferenceSystem\\$new\(\)](#)
- [ISOAbstractReferenceSystem\\$setName\(\)](#)
- [ISOAbstractReferenceSystem\\$addDomainOfValidity\(\)](#)
- [ISOAbstractReferenceSystem\\$delDomainOfValidity\(\)](#)
- [ISOAbstractReferenceSystem\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOAbstractReferenceSystem\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setName():** Set name*Usage:*

ISOAbstractReferenceSystem\$setName(name)

*Arguments:*

name name, object of class [ISOReferenceIdentifier](#)

**Method addDomainOfValidity():** Adds domain of validity*Usage:*

ISOAbstractReferenceSystem\$addDomainOfValidity(domainOfValidity)

*Arguments:*

domainOfValidity object of class [ISOExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delDomainOfValidity():** Deletes domain of validity*Usage:*

ISOAbstractReferenceSystem\$delDomainOfValidity(domainOfValidity)

*Arguments:*

domainOfValidity object of class [ISOExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

ISOAbstractReferenceSystem\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

abstract class

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

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ISOAbstractResult	<i>ISOAbstractResult</i>
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**Description**

ISOAbstractResult

ISOAbstractResult

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO Result**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAbstractResult**Public fields**

specification specification

explanation explanation

pass pass

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

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

**Method** [new\(\)](#): Initializes object*Usage:*

ISOAbstractResult\$new(xml = NULL)

*Arguments:*xml object of class [XMLInternalNode-class](#)**Method** [clone\(\)](#): The objects of this class are cloneable with this method.*Usage:*

ISOAbstractResult\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

abstract class

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOAbstractTemporalAccuracy

*ISOAbstractTemporalAccuracy*

---

**Description**

ISOAbstractTemporalAccuracy

ISOAbstractTemporalAccuracy

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOAbstractTemporalAccuracy

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [ISOAbstractTemporalAccuracy](#)

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

- [ISOAbstractTemporalAccuracy\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOAbstractThematicAccuracy  
*ISOAbstractThematicAccuracy*

---

**Description**

ISOAbstractThematicAccuracy

ISOAbstractThematicAccuracy

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOAbstractThematicAccuracy

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [ISOAbstractThematicAccuracy](#)

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

- [ISOAbstractThematicAccuracy\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOAccuracyOfATimeMeasurement

*ISOAccuracyOfATimeMeasurement*

---

## Description

ISOAccuracyOfATimeMeasurement

ISOAccuracyOfATimeMeasurement

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISOAccuracyOfATimeMeasurement

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [geometa::ISOAbstractTemporalAccuracy](#) -> ISOAccuracyOfATimeMeasurement

## Methods

### Public methods:

- [ISOAccuracyOfATimeMeasurement\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

## Author(s)

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

## References

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```

#encoding
dq <- ISOAccuracyOfATimeMeasurement$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()

```

---

ISOAddress

*ISOAddress*


---

**Description**

ISOAddress

ISOAddress

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO Address**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAddress

**Public fields**

deliveryPoint delivery point  
city city  
postalCode postal code  
country country  
electronicMailAddress email

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

- [ISOAddress\\$new\(\)](#)
- [ISOAddress\\$setDeliveryPoint\(\)](#)
- [ISOAddress\\$setCity\(\)](#)
- [ISOAddress\\$setPostalCode\(\)](#)
- [ISOAddress\\$setCountry\(\)](#)
- [ISOAddress\\$setEmail\(\)](#)
- [ISOAddress\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOAddress$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setDeliveryPoint()`: Set delivery point

*Usage:*

`ISOAddress$setDeliveryPoint(deliveryPoint, locales = NULL)`

*Arguments:*

`deliveryPoint` delivery point

`locales` list of localized names

**Method** `setCity()`: Set city

*Usage:*

`ISOAddress$setCity(city, locales = NULL)`

*Arguments:*

`city` city

`locales` list of localized names

**Method** `setPostalCode()`: Set postal code

*Usage:*

`ISOAddress$setPostalCode(postalCode, locales = NULL)`

*Arguments:*



postalCode postal code  
locales list of localized names

**Method setCountry():** Set country

*Usage:*

```
ISOAddress$setCountry(country, locales = NULL)
```

*Arguments:*

country country  
locales list of localized names

**Method setEmail():** Set email

*Usage:*

```
ISOAddress$setEmail(email, locales = NULL)
```

*Arguments:*

email email  
locales list of localized names

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOAddress$new()  
md$setDeliveryPoint("theaddress")  
md$setCity("thecity")  
md$setPostalCode("111")  
md$setCountry("France")  
md$setEmail("someone@theorg.org")  
xml <- md$encode()
```

---

ISOAggregateInformation  
*ISOAggregateInformation*

---

**Description**

ISOAggregateInformation  
 ISOAggregateInformation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling a ISO AggregateInformation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAggregateInformation

**Public fields**

aggregateDataSetName aggregate dataset name  
 aggregateDataSetIdentifier aggregate dataset identifier  
 associationType association type  
 initiativeType initiative type

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

- [ISOAggregateInformation\\$new\(\)](#)
- [ISOAggregateInformation\\$setAggregateDataSetName\(\)](#)
- [ISOAggregateInformation\\$setAggregateDataSetIdentifier\(\)](#)
- [ISOAggregateInformation\\$setAssociationType\(\)](#)
- [ISOAggregateInformation\\$setInitiativeType\(\)](#)
- [ISOAggregateInformation\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOAggregateInformation\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setAggregateDataSetName\(\)](#): Set aggregate dataset name

*Usage:*

ISOAggregateInformation\$setAggregateDataSetName(datasetName)

*Arguments:*

datasetName object of class [ISOCitation](#)

**Method** setAggregateDataSetIdentifier(): Set aggregate dataset identifier

*Usage:*

ISOAggregateInformation\$setAggregateDataSetIdentifier(datasetIdentifier)

*Arguments:*

datasetIdentifier object of class [ISOMetaIdentifier](#)

**Method** setAssociationType(): Set association type

*Usage:*

ISOAggregateInformation\$setAssociationType(associationType)

*Arguments:*

associationType object of class [ISOAssociationType](#) or **character** value among values from [ISOAssociationType\\$values\(\)](#)

**Method** setInitiativeType(): Set association type

*Usage:*

ISOAggregateInformation\$setInitiativeType(initiativeType)

*Arguments:*

initiativeType object of class [ISOInitiativeType](#) or **character** value among values from [ISOInitiativeType\\$values\(\)](#)

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

*Usage:*

ISOAggregateInformation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```

#encoding
md <- ISOAggregateInformation$new()

#adding a point of contact
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp)
md$setAggregateDataSetName(ct)

md$setAssociationType("source")
md$setInitiativeType("investigation")

xml <- md$encode()

```

**Description**

ISOAnchor  
ISOAnchor

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Anchor

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAnchor

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

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

**Method new():** Initializes object

*Usage:*

```
ISOAnchor$new(xml = NULL, name = NULL, ...)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

name name

... attributes for XML encoding

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO/TS 19139:2007 Geographic information – XML

**Examples**

```
md <- ISOAnchor$new(name = "some entity name", href = "someentityuri")  
xml <- md$encode()
```

---

ISOAngle

*ISOAngle*

---

### Description

ISOAngle

ISOAngle

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOAngle measure

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOMeasure](#) -> ISOAngle

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOAngle$new(xml = NULL, value, uom, useUomURI = FALSE)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

uom uom symbol of unit of measure used

useUomURI use uom URI. Default is FALSE

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

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

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOApplicationSchemaInformation

*ISOApplicationSchemaInformation*

---

**Description**

ISOApplicationSchemaInformation

ISOApplicationSchemaInformation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO ApplicationSchemaInformation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOApplicationSchemaInformation

**Public fields**

name name [1..1]

schemaLanguage chemaLanguage [1..1]

constraintLanguage constraintLanguage [1..1]

schemaAscii schemaAscii [0..1]

graphicsFile graphicsFile [0..1]

softwareDevelopmentFile softwareDevelopmentFile [0..1]

softwareDevelopmentFileFormat softwareDevelopmentFileFormat [0..1]

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

- [ISOApplicationSchemaInformation\\$new\(\)](#)
- [ISOApplicationSchemaInformation\\$setName\(\)](#)
- [ISOApplicationSchemaInformation\\$setSchemaLanguage\(\)](#)
- [ISOApplicationSchemaInformation\\$setConstraintLanguage\(\)](#)
- [ISOApplicationSchemaInformation\\$setSchemaAscii\(\)](#)
- [ISOApplicationSchemaInformation\\$setGraphicsFile\(\)](#)
- [ISOApplicationSchemaInformation\\$setSoftwareDevelopmentFile\(\)](#)

- [ISOApplicationSchemaInformation\\$setSoftwareDevelopmentFileFormat\(\)](#)
- [ISOApplicationSchemaInformation\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISOApplicationSchemaInformation\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setName():** Set name

*Usage:*

ISOApplicationSchemaInformation\$setName(name)

*Arguments:*

name name

**Method setSchemaLanguage():** Set schema language

*Usage:*

ISOApplicationSchemaInformation\$setSchemaLanguage(schemaLanguage)

*Arguments:*

schemaLanguage schema language

**Method setConstraintLanguage():** Set constraint language

*Usage:*

ISOApplicationSchemaInformation\$setConstraintLanguage(constraintLanguage)

*Arguments:*

constraintLanguage constraint language

**Method setSchemaAscii():** Set schema Ascii

*Usage:*

ISOApplicationSchemaInformation\$setSchemaAscii(schemaAscii)

*Arguments:*

schemaAscii schema Ascii

**Method setGraphicsFile():** Set graphics file

*Usage:*

ISOApplicationSchemaInformation\$setGraphicsFile(graphicsFile)

*Arguments:*

graphicsFile graphics file

**Method setSoftwareDevelopmentFile():** Set software development file

*Usage:*

ISOApplicationSchemaInformation\$setSoftwareDevelopmentFile(file)

*Arguments:*



file file

**Method** setSoftwareDevelopmentFileFormat(): Set software development file format

*Usage:*

ISOApplicationSchemaInformation\$setSoftwareDevelopmentFileFormat(format)

*Arguments:*

format file format

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

*Usage:*

ISOApplicationSchemaInformation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOAssociation

*ISOAssociation*

---

#### Description

ISOAssociation

ISOAssociation

#### Format

[R6Class](#) object.

#### Value

Object of [R6Class](#) for modelling an ISOAssociation

#### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOAssociation

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

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

**Method** `new()`: Initializes object

*Usage:*

`ISOAssociation$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

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

*Usage:*

`ISOAssociation$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

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ISOAssociationRole	<i>ISOAssociationRole</i>
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**Description**

ISOAssociationRole

ISOAssociationRole

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOAssociationRole

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractCarrierOfCharacteristics](#)  
 -> [geometa::ISOAbstractPropertyType](#) -> [geometa::ISOPropertyType](#) -> ISOAssociationRole

**Public fields**

type type: ISORoleType  
isOrdered isOrdered: logical  
isNavigable isNavigable: logical  
relation relation: ISOAssociationRole  
rolePlayer rolePlayer: ISOFeatureType

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

- [ISOAssociationRole\\$new\(\)](#)
- [ISOAssociationRole\\$setRoleType\(\)](#)
- [ISOAssociationRole\\$setIsOrdered\(\)](#)
- [ISOAssociationRole\\$setIsNavigable\(\)](#)
- [ISOAssociationRole\\$setRelation\(\)](#)
- [ISOAssociationRole\\$addRolePlayer\(\)](#)
- [ISOAssociationRole\\$delRolePlayer\(\)](#)
- [ISOAssociationRole\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOAssociationRole$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setRoleType\(\)](#): Set role type

*Usage:*

```
ISOAssociationRole$setRoleType(roleType)
```

*Arguments:*

roleType role type, object of class [ISORoleType](#) or any [character](#) among values returned by [ISORoleType\\$values\(\)](#)

**Method** [setIsOrdered\(\)](#): Set is ordered

*Usage:*

```
ISOAssociationRole$setIsOrdered(isOrdered)
```

*Arguments:*

isOrdered object of class [logical](#)

**Method** [setIsNavigable\(\)](#): Set is navigable

*Usage:*

```
ISOAssociationRole$setIsNavigable(isNavigable)
```

*Arguments:*

isNavigable object of class [logical](#)

**Method** setRelation(): Set relation

*Usage:*

ISOAssociationRole\$setRelation(relation)

*Arguments:*

relation relation

**Method** addRolePlayer(): Adds role player

*Usage:*

ISOAssociationRole\$addRolePlayer(rolePlayer)

*Arguments:*

rolePlayer object of class [ISOFeatureType](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delRolePlayer(): Deletes role player

*Usage:*

ISOAssociationRole\$delRolePlayer(rolePlayer)

*Arguments:*

rolePlayer object of class [ISOFeatureType](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOAssociationRole\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOAssociationType     *ISOAssociationType*

---

**Description**

ISOAssociationType

ISOAssociationType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO AssociationType

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOAssociationType

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOAssociationType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOAssociationType$values(labels = TRUE)

#geomOnly
geomOnly <- ISOAssociationType$new(value = "source")
```

---

ISOAttributes

*ISOAttributes*

---

**Description**

ISOAttributes

ISOAttributes

**Format**

[R6Class](#) object.

**Value**

Spatial object of [R6Class](#) for modelling a list of ISO xml attributes

**Public fields**

attrs attrs

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

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

**Method** [new\(\)](#): method is used to instantiate a vector of attributes to be used for empty element properties.

*Usage:*

```
ISOAttributes$new(...)
```

*Arguments:*

... list of attributes

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**Examples**

```
attrs <- ISOAttributes$new(href = "http://somelink", title = "sometitle")
```

---

 ISOBand

*ISOBand*


---

**Description**

ISOBand

ISOBand

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOBand

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISORangeDimension
-> ISOBand
```

**Public fields**

```
maxValue maxValue [0..1] : numeric
minValue minValue [0..1] : numeric
units units [0..1] : GMLUnitDefinition
peakResponse peakResponse [0..1] : numeric
bitsPerValue bitsPerValue [0..1] : integer
toneGradation toneGradation [0..1] : integer
scaleFactor scaleFactor [0..1] : numeric
offset offset [0..1] : numeric
```

## Methods

### Public methods:

- [ISOBand\\$new\(\)](#)
- [ISOBand\\$setMaxValue\(\)](#)
- [ISOBand\\$setMinValue\(\)](#)
- [ISOBand\\$setUnits\(\)](#)
- [ISOBand\\$setPeakResponse\(\)](#)
- [ISOBand\\$setBitsPerValue\(\)](#)
- [ISOBand\\$setToneGradation\(\)](#)
- [ISOBand\\$setScaleFactor\(\)](#)
- [ISOBand\\$setOffset\(\)](#)
- [ISOBand\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOBand$new(xml = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setMaxValue()`: Set max value

*Usage:*

```
ISOBand$setMaxValue(maxValue)
```

*Arguments:*

`maxValue` max value, object of class [numeric](#)

**Method** `setMinValue()`: Set min value

*Usage:*

```
ISOBand$setMinValue(minValue)
```

*Arguments:*

`minValue` min value, object of class [numeric](#)

**Method** `setUnits()`: Set unit definition

*Usage:*

```
ISOBand$setUnits(uom)
```

*Arguments:*

`uom` object of class [GMLUnitDefinition](#)

**Method** `setPeakResponse()`: Set peak response

*Usage:*

```
ISOBand$setPeakResponse(peakResponse)
```

*Arguments:*

`peakResponse` object of class [numeric](#)



**Method** `setBitsPerValue()`: Set bits per value

*Usage:*

```
ISOBand$setBitsPerValue(bitsPerValue)
```

*Arguments:*

`bitsPerValue` object of class `numeric`

**Method** `setToneGradation()`: Set tone gradation

*Usage:*

```
ISOBand$setToneGradation(toneGradation)
```

*Arguments:*

`toneGradation` object of class `numeric`

**Method** `setScaleFactor()`: Set scale factor

*Usage:*

```
ISOBand$setScaleFactor(scaleFactor)
```

*Arguments:*

`scaleFactor` object of class `numeric`

**Method** `setOffset()`: Set offset

*Usage:*

```
ISOBand$setOffset(offset)
```

*Arguments:*

`offset` object of class `numeric`

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### Examples

```
#create band range dimension
md <- ISOBand$new()
md$setSequenceIdentifier(ISOMemberName$new(aName = "name", attributeType = "type"))
md$setDescriptor("descriptor")
md$setMaxValue(10)
md$setMinValue(1)
gml <- GMLBaseUnit$new(id = "ID")
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
```

```

gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
gml$setUnitsSystem("somelink")
md$setUnits(gml)
md$setPeakResponse(9)
md$setBitsPerValue(5)
md$setToneGradation(100)
md$setScaleFactor(1)
md$setOffset(4)
xml <- md$encode()

```

---

ISOBaseBoolean

*ISOBaseBoolean*


---

### Description

ISOBaseBoolean

ISOBaseBoolean

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Boolean

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBaseBoolean

### Public fields

value value

### Methods

#### Public methods:

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

**Method** [new\(\)](#): Initializes a base boolean object

*Usage:*

```
ISOBaseBoolean$new(xml = NULL, value)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
value value

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

*Usage:*

ISOBaseBoolean\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Note

Class used by geometa internal XML decoder/encoder

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOBaseCharacterString

*ISOBaseCharacterString*

---

### Description

ISOBaseCharacterString

ISOBaseCharacterString

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO BaseCharacterString

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBaseCharacterString

### Public fields

value value

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

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

**Method** `new()`: Initializes a base character object

*Usage:*

```
ISOBaseCharacterString$new(xml = NULL, value)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOBaseDate

*ISOBaseDate*

---

**Description**

ISOBaseDate

ISOBaseDate

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Date

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBaseDate

**Public fields**

value value

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

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

**Method new():** Initializes a base date object

*Usage:*

ISOBaseDate\$new(xml = NULL, value = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

ISOBaseDate\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

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

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOBaseDateTime	<i>ISOBaseDateTime</i>
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---

**Description**

ISOBaseDateTime

ISOBaseDateTime

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO DateTime**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBaseDateTime**Public fields**

value value

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

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

**Method** `new()`: Initializes a base datetime object*Usage:*`ISOBaseDateTime$new(xml = NULL, value = NULL)`*Arguments:*xml object of class [XMLInternalNode-class](#)

value value

**Method** `clone()`: The objects of this class are cloneable with this method.*Usage:*`ISOBaseDateTime$clone(deep = FALSE)`*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOBaseDecimal	<i>ISOBaseDecimal</i>
----------------	-----------------------

---

**Description**

ISOBaseDecimal

ISOBaseDecimal

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Decimal

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBaseDecimal

**Public fields**

value value

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

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

**Method** [new\(\)](#): Initializes a base decimal object

*Usage:*

[ISOBaseDecimal\\$new](#)(xml = NULL, value)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOBaseInteger

*ISOBaseInteger*

---

**Description**

ISOBaseInteger

ISOBaseInteger

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Integer

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBaseInteger

**Public fields**

value value



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

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

**Method** `new()`: Initializes a base integer object

*Usage:*

```
ISOBaseInteger$new(xml = NULL, value)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`value` value

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

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

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOBaseReal

*ISOBaseReal*

---

**Description**

ISOBaseReal

ISOBaseReal

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Real

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBaseReal

**Public fields**

value value

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

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

**Method** `new()`: Initializes a base real object

*Usage:*

`ISOBaseReal$new(xml = NULL, value)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

`ISOBaseReal$clone(deep = FALSE)`

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

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

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOBinary

*ISOBinary*

---

### Description

ISOBinary

ISOBinary

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO UnlimitedInteger

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBinary

### Public fields

value value

attrs attrs

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

`ISOBinary$new(xml = NULL, value)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

`ISOBinary$clone(deep = FALSE)`

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

**Examples**

```
bin <- ISOBinary$new(value = "http://someuri")
```

---

ISOBinding

*ISOBinding*

---

**Description**

ISOBinding

ISOBinding

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOBinding

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractCarrierOfCharacteristics
-> ISOBinding
```

**Public fields**

description description [0..1]: character

globalProperty globalProperty [1..1]: ISOPropertyType

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

- [ISOBinding\\$setDescription\(\)](#)
- [ISOBinding\\$setPropertyType\(\)](#)
- [ISOBinding\\$clone\(\)](#)

**Method** setDescription(): Set description

*Usage:*

```
ISOBinding$setDescription(description, locales = NULL)
```

*Arguments:*

description description

locales list of localized descriptions

**Method** setPropertyType(): Set property type.

*Usage:*

```
ISOBinding$setPropertyType(propertyType)
```

*Arguments:*

propertyType property type, object of class [ISOPropertyType](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

#### References

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOBoundAssociationRole

*ISOBoundAssociationRole*

---

#### Description

ISOBoundAssociationRole

ISOBoundAssociationRole

#### Format

[R6Class](#) object.

#### Value

Object of [R6Class](#) for modelling an ISOBoundAssociationRole

#### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractCarrierOfCharacteristics
-> geometa::ISOBinding -> ISOBoundAssociationRole
```

**Public fields**

rolePlayer rolePlayer [0..1]: ISOFeatureType

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

- [ISOBoundAssociationRole\\$setRolePlayer\(\)](#)
- [ISOBoundAssociationRole\\$clone\(\)](#)

**Method** setRolePlayer(): set role player

*Usage:*

ISOBoundAssociationRole\$setRolePlayer(rolePlayer)

*Arguments:*

rolePlayer object of class [ISOFeatureType](#)

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

*Usage:*

ISOBoundAssociationRole\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOBoundFeatureAttribute

*ISOBoundFeatureAttribute*

---

**Description**

ISOBoundFeatureAttribute

ISOBoundFeatureAttribute

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOBoundFeatureAttribute

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractCarrierOfCharacteristics](#)  
 -> [geometa::ISOBinding](#) -> [ISOBoundFeatureAttribute](#)

**Public fields**

valueType valueType [0..1]: [ISOTypeName](#)

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

- [ISOBoundFeatureAttribute\\$setTypeNames\(\)](#)
- [ISOBoundFeatureAttribute\\$clone\(\)](#)

**Method** [setTypeNames\(\)](#): Set type name

*Usage:*

[ISOBoundFeatureAttribute\\$setTypeNames\(typeName\)](#)

*Arguments:*

typeName object of class [ISOTypeName](#) or character

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

*Usage:*

[ISOBoundFeatureAttribute\\$clone\(deep = FALSE\)](#)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOBoundingPolygon      *ISOBoundingPolygon*

---

**Description**

ISOBoundingPolygon

ISOBoundingPolygon

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO BoundingPolygon

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOGeographicExtent](#)  
-> [ISOBoundingPolygon](#)

**Public fields**

polygon list of polygons

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

- [ISOBoundingPolygon\\$new\(\)](#)
- [ISOBoundingPolygon\\$addPolygon\(\)](#)
- [ISOBoundingPolygon\\$delPolygon\(\)](#)
- [ISOBoundingPolygon\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOBoundingPolygon\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addPolygon\(\)](#): Adds polygon

*Usage:*

[ISOBoundingPolygon\\$addPolygon\(x\)](#)

*Arguments:*

x geometry object from **sf** or object of class inheriting [GMLAbstractGeometry](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delPolygon\(\)](#): Deletes polygon

*Usage:*

[ISOBoundingPolygon\\$delPolygon\(x\)](#)

*Arguments:*

x geometry object from **sf** or object of class inheriting [GMLAbstractGeometry](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

[ISOBoundingPolygon\\$clone\(deep = FALSE\)](#)

*Arguments:*

deep Whether to make a deep clone.



**Note**

Experimental

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOBrowseGraphic      *ISOBrowseGraphic*

---

**Description**

ISOBrowseGraphic

ISOBrowseGraphic

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO BrowseGraphic

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOBrowseGraphic

**Public fields**

fileName file name

fileDescription file description

fileType file type

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

- [ISOBrowseGraphic\\$new\(\)](#)
- [ISOBrowseGraphic\\$setFileName\(\)](#)
- [ISOBrowseGraphic\\$setFileDescription\(\)](#)
- [ISOBrowseGraphic\\$setFileType\(\)](#)
- [ISOBrowseGraphic\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

```
ISOBrowseGraphic$new(  
  xml = NULL,  
  fileName = NULL,  
  fileDescription = NULL,  
  fileType = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
fileName file name  
fileDescription file description  
fileType file type

**Method** setFileName(): Set file name

*Usage:*

```
ISOBrowseGraphic$setFileName(fileName, locales = NULL)
```

*Arguments:*

fileName file name  
locales a list of localized names. Default is NULL

**Method** setDescription(): Set file description

*Usage:*

```
ISOBrowseGraphic$setDescription(fileDescription, locales = NULL)
```

*Arguments:*

fileDescription file description  
locales a list of localized descriptions. Default is NULL

**Method** setFileType(): Set file type

*Usage:*

```
ISOBrowseGraphic$setFileType(fileType, locales = NULL)
```

*Arguments:*

fileType file type  
locales a list of localized types. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
md <- ISOBrowseGraphic$new(  
  fileName = "http://www.somefile.org/png",  
  fileDescription = "Map Overview",  
  fileType = "image/png"  
)  
xml <- md$encode()
```

---

ISOCarrierOfCharacteristics  
*ISOCarrierOfCharacteristics*

---

## Description

ISOCarrierOfCharacteristics  
ISOCarrierOfCharacteristics

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISOCarrierOfCharacteristics

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractCarrierOfCharacteristics](#)  
-> [ISOCarrierOfCharacteristics](#)

## Methods

### Public methods:

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

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOCarrierOfCharacteristics\\$new](#)(xml = NULL, defaults = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults defaults

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOCellGeometry

*ISOCellGeometry*

---

### Description

ISOCellGeometry

ISOCellGeometry

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO CellGeometryCode

### Methods

new(xml, value, description) This method is used to instantiate an [ISOCellGeometry](#)

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> [ISOCellGeometry](#)

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

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

**Method new():** Initializes object

*Usage:*

```
ISOCellGeometry$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOCellGeometry$values(labels = TRUE)

#example of 'point' cell geometry code
pointCode <- ISOCellGeometry$new(value = "point")
```

---

ISOCharacterSet

*ISOCharacterSet*

---

**Description**

ISOCharacterSet

ISOCharacterSet

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO CharacterSet

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> [ISOCharacterSet](#)

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOCharacterSet$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOCharacterSet$values(labels = TRUE)

#some charset
charset <- ISOCharacterSet$new(value = "utf8")
```

---

ISOCitation

*ISOCitation*

---

### Description

ISOCitation

ISOCitation

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Citation

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOCitation

### Public fields

title title

alternateTitle alternate title

date date list

edition edition

editionDate edition date

identifier identifier list

citedResponsibleParty list of cited responsible parties

presentationForm list of presentation forms

series series

otherCitationDetails other citation details

collectiveTitle collective title

ISBN ISBN

ISSN ISSN

### Methods

#### Public methods:

- [ISOCitation\\$new\(\)](#)
- [ISOCitation\\$setTitle\(\)](#)
- [ISOCitation\\$setAlternateTitle\(\)](#)
- [ISOCitation\\$addAlternateTitle\(\)](#)

- `ISOCitation$delAlternateTitle()`
- `ISOCitation$addDate()`
- `ISOCitation$setEdition()`
- `ISOCitation$setEditionDate()`
- `ISOCitation$setIdentifier()`
- `ISOCitation$addIdentifier()`
- `ISOCitation$delIdentifier()`
- `ISOCitation$setCitedResponsibleParty()`
- `ISOCitation$addCitedResponsibleParty()`
- `ISOCitation$delCitedResponsibleParty()`
- `ISOCitation$setPresentationForm()`
- `ISOCitation$addPresentationForm()`
- `ISOCitation$delPresentationForm()`
- `ISOCitation$setSeries()`
- `ISOCitation$setOtherCitationDetails()`
- `ISOCitation$setCollectiveTitle()`
- `ISOCitation$setISBN()`
- `ISOCitation$setISSN()`
- `ISOCitation$clone()`

**Method** `new()`: Initializes object

*Usage:*

```
ISOCitation$new(xml = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setTitle()`: Set title

*Usage:*

```
ISOCitation$setTitle(title, locales = NULL)
```

*Arguments:*

`title` title

`locales` list of localized names. Default is NULL

**Method** `setAlternateTitle()`: Set alternate title

*Usage:*

```
ISOCitation$setAlternateTitle(alternateTitle, locales = NULL)
```

*Arguments:*

`alternateTitle` alternate title

`locales` list of localized names. Default is NULL

**Method** `addAlternateTitle()`: Adds alternate title

*Usage:*

```
ISOCitation$addAlternateTitle(alternateTitle, locales = NULL)
```



*Arguments:*

alternateTitle alternate title  
locales list of localized titles. Default is NULL

*Returns:* TRUE if added, FALSE otherwise

**Method delAlternateTitle():** Deletes alternate title

*Usage:*

```
ISOCitation$delAlternateTitle(alternateTitle, locales = NULL)
```

*Arguments:*

alternateTitle alternate title  
locales list of localized titles. Default is NULL

*Returns:* TRUE if deleted, FALSE otherwise

**Method addDate():** Adds date

*Usage:*

```
ISOCitation$addDate(date)
```

*Arguments:*

date date

*Returns:* TRUE if added, FALSE otherwise

**Method setEdition():** Set edition

*Usage:*

```
ISOCitation$setEdition(edition, locales = NULL)
```

*Arguments:*

edition edition  
locales list of localized editions. Default is NULL

**Method setEditionDate():** Sets the edition date, either an ISODate object containing date and dateType or a simple R date "POSIXct"/"POSIXt" object. For thesaurus citations, an ISODate should be used while for the general citation of [ISODataIdentification](#), a simple R date should be used.

*Usage:*

```
ISOCitation$setEditionDate(editionDate)
```

*Arguments:*

editionDate object of class [Date](#) or [POSIXct](#)

**Method setIdentifier():** Set identifier

*Usage:*

```
ISOCitation$setIdentifier(identifier)
```

*Arguments:*

identifier identifier, object of class [ISOMetaIdentifier](#)

**Method addIdentifier():** Adds identifier

*Usage:*`ISOCitation$addIdentifier(identifier)`*Arguments:*`identifier` identifier, object of class [ISOMetaIdentifier](#)`locales` list of localized identifiers. Default is NULL*Returns:* TRUE if added, FALSE otherwise**Method** `delIdentifier()`: Deletes identifier*Usage:*`ISOCitation$delIdentifier(identifier)`*Arguments:*`identifier` identifier, object of class [ISOMetaIdentifier](#)`locales` list of localized identifiers. Default is NULL*Returns:* TRUE if deleted, FALSE otherwise**Method** `setCitedResponsibleParty()`: Set cited responsible party*Usage:*`ISOCitation$setCitedResponsibleParty(rp)`*Arguments:*`rp` cited responsible party, object of class [ISOResponsibleParty](#)**Method** `addCitedResponsibleParty()`: Adds cited responsible party*Usage:*`ISOCitation$addCitedResponsibleParty(rp)`*Arguments:*`rp` cited responsible party, object of class [ISOResponsibleParty](#)`locales` list of localized responsible parties. Default is NULL*Returns:* TRUE if added, FALSE otherwise**Method** `delCitedResponsibleParty()`: Deletes cited responsible party*Usage:*`ISOCitation$delCitedResponsibleParty(rp)`*Arguments:*`rp` cited responsible party, object of class [ISOResponsibleParty](#)`locales` list of localized responsible parties. Default is NULL*Returns:* TRUE if deleted, FALSE otherwise**Method** `setPresentationForm()`: Sets presentation form*Usage:*`ISOCitation$setPresentationForm(presentationForm)`*Arguments:*

presentationForm presentation form, object of class [ISOPresentationForm](#) or [character](#) among values returned by ISOPresentationForm\$values()

**Method** addPresentationForm(): Adds presentation form

*Usage:*

```
ISOCitation$addPresentationForm(presentationForm)
```

*Arguments:*

presentationForm presentation form, object of class [ISOPresentationForm](#) or [character](#) among values returned by ISOPresentationForm\$values()

*Returns:* TRUE if added, FALSE otherwise

**Method** delPresentationForm(): Deletes presentation form

*Usage:*

```
ISOCitation$delPresentationForm(presentationForm)
```

*Arguments:*

presentationForm presentation form, object of class [ISOPresentationForm](#) or [character](#) among values returned by ISOPresentationForm\$values()

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setSeries(): Set series

*Usage:*

```
ISOCitation$setSeries(series)
```

*Arguments:*

series object of class [ISOCitationSeries](#)

**Method** setOtherCitationDetails(): Set other citation details

*Usage:*

```
ISOCitation$setOtherCitationDetails(otherCitationDetails, locales = NULL)
```

*Arguments:*

otherCitationDetails other citation details

locales list of localized other citation details. Default is NULL

**Method** setCollectiveTitle(): Set collective title

*Usage:*

```
ISOCitation$setCollectiveTitle(collectiveTitle, locales = NULL)
```

*Arguments:*

collectiveTitle collective title

locales list of localized titles. Default is NULL

**Method** setISBN(): Set ISBN

*Usage:*

```
ISOCitation$setISBN(isbn)
```

*Arguments:*

isbn isbn

**Method** setISSN(): Set ISSN*Usage:*

ISOCitation\$setISSN(issn)

*Arguments:*

issn issn

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

ISOCitation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel &lt;emmanuel.blondel1@gmail.com&gt;

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create ISOCitation
md <- ISOCitation$new()
md$setTitle("sometitle")
md$setEdition("1.0")
md$setEditionDate(ISOdate(2015,1,1))
md$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
md$addPresentationForm("mapDigital")

#add a cited responsible party
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
```

```
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
md$addCitedResponsibleParty(rp)
xml <- md$encode()
```

---

ISOCitationSeries      *ISOCitationSeries*

---

## Description

ISOCitationSeries  
ISOCitationSeries

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISOCitationSeries

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOCitationSeries

## Public fields

name name [0..1]  
issueIdentification issueIdentification [0..1]  
page page [0..1]

## Methods

### Public methods:

- [ISOCitationSeries\\$new\(\)](#)
- [ISOCitationSeries\\$setName\(\)](#)
- [ISOCitationSeries\\$setIssueIdentification\(\)](#)
- [ISOCitationSeries\\$setPage\(\)](#)
- [ISOCitationSeries\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOCitationSeries$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setName():** Set name*Usage:*

```
ISOCitationSeries$setName(name, locales = NULL)
```

*Arguments:*

name name

locales list of localized names. Default is NULL

**Method setIssueIdentification():** Set issue ID*Usage:*

```
ISOCitationSeries$setIssueIdentification(issueId, locales = NULL)
```

*Arguments:*

issueId issueId

locales list of localized ids Default is NULL

**Method setPage():** Set page*Usage:*

```
ISOCitationSeries$page(page, locales = NULL)
```

*Arguments:*

page page

locales list of localized pages. Default is NULL

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

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOClassification	<i>ISOClassification</i>
-------------------	--------------------------

---

**Description**

ISOClassification

ISOClassification

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Classification

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOClassification

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOClassification$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOClassification$values(labels = TRUE)

#restricted classification
cl <- ISOClassification$new(value = "restricted")
```

---

ISOCodelist

*ISOCodelist*

---

**Description**

ISOCodelist

ISOCodelist

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO codelist

**Public fields**

id id

refFile ref file

codeSpace code space

identifier identifier

description description

entries entries

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

- [ISOCodelist\\$new\(\)](#)
- [ISOCodelist\\$parse\(\)](#)
- [ISOCodelist\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object



*Usage:*

```
ISOCodelist$new(refFile, id)
```

*Arguments:*

```
refFile ref file
```

```
id id
```

**Method** parse(): Parse codelist

*Usage:*

```
ISOCodelist$parse(refFile, id)
```

*Arguments:*

```
refFile ref file
```

```
id id
```

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

*Usage:*

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

*Arguments:*

```
deep Whether to make a deep clone.
```

**Note**

Class used by geometa internal codelist XML decoder/encoder

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

---

ISOCodeListValue

*ISOCodeListValue*

---

**Description**

ISOCodeListValue

ISOCodeListValue

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Metadata codelist element

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOCodeListValue

**Public fields**

codelistId codelist ID  
 attrs attrs  
 value value  
 valueDescription value description

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

- [ISOCodeListValue\\$new\(\)](#)
- [ISOCodeListValue\\$getAcceptedValues\(\)](#)
- [ISOCodeListValue\\$clone\(\)](#)

**Method new():** Method used to instantiate an [ISOCodeListValue](#). By default, addCodeListAttrs = TRUE, to add codelist attributes to root XML. The parameter addCodeSpaceAttr = TRUE by default, and ignored if the value of addCodeListAttrs is set to FALSE. The argument setValue sets the value as node text (default is TRUE). The argument setValueDescription allows to force having description set as value, default is FALSE in which case the name will be preferred, and in case no name is provided, code value will be used.

*Usage:*

```

ISOCodeListValue$new(
  xml = NULL,
  id,
  value = NULL,
  description = NULL,
  addCodeListAttrs = TRUE,
  addCodeSpaceAttr = TRUE,
  setValue = TRUE,
  setValueDescription = FALSE
)

```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 id id  
 value value  
 description description  
 addCodeListAttrs add codelist attributes?  
 addCodeSpaceAttr add codespace attribute?  
 setValue set value?  
 setValueDescription set value description?

**Method getAcceptedValues():** Get accepted values

*Usage:*

```
ISOCodeListValue$getAcceptedValues()
```

*Returns:* a vector of class [character](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Note

Abstract ISO codelist class used internally by geometa

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOCompletenessCommission  
*ISOCompletenessCommission*

---

### Description

ISOCompletenessCommission

ISOCompletenessCommission

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOCompletenessCommission

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [geometa::ISOAbstractThematicAccuracy](#) -> ISOCompletenessCommission

## Methods

### Public methods:

- [ISOCompletenessCommission\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
#encoding
dq <- ISOCompletenessCommission$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```

---

ISOCompletenessOmission

*ISOCompletenessOmission*

---

## Description

ISOCompletenessOmission

ISOCompletenessOmission

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISOCompletenessOmission

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [geometa::ISOAbstractThematicAccuracy](#) -> ISOCompletenessOmission

## Methods

### Public methods:

- [ISOCompletenessOmission\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

## Author(s)

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

## References

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```

#encoding
dq <- ISOCompletenessOmission$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()

```

---

ISOConceptualConsistency

*ISOConceptualConsistency*

---

**Description**

ISOConceptualConsistency

ISOConceptualConsistency

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOConceptualConsistency

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [geometa::ISOAbstractLogicalConsistency](#) -> ISOConceptualConsistency

## Methods

### Public methods:

- [ISOConceptualConsistency\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
#encoding
dq <- ISOConceptualConsistency$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```

---

ISOConformanceResult *ISOConformanceResult*

---

**Description**

ISOConformanceResult

ISOConformanceResult

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO ConformanceResult

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractResult](#)  
-> ISOConformanceResult

**Public fields**

specification specification

explanation explanation

pass pass

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

- [ISOConformanceResult\\$new\(\)](#)
- [ISOConformanceResult\\$setSpecification\(\)](#)
- [ISOConformanceResult\\$setExplanation\(\)](#)
- [ISOConformanceResult\\$setPass\(\)](#)
- [ISOConformanceResult\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOConformanceResult\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setSpecification\(\)](#): Set specification

*Usage:*

[ISOConformanceResult\\$setSpecification\(specification\)](#)



*Arguments:*

specification specification

**Method** `setExplanation()`: Set explanation about the conformance result

*Usage:*

```
ISOConformanceResult$setExplanation(explanation, locales = NULL)
```

*Arguments:*

explanation explanation

locales list of localized explanations. Default is NULL

**Method** `setPass()`: Set whether the conformance passed or not

*Usage:*

```
ISOConformanceResult$setPass(pass)
```

*Arguments:*

pass object of class [logical](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOConformanceResult$new()
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
md$setSpecification(spec)
md$setExplanation("some explanation about the conformance")
md$setPass(TRUE)
xml <- md$encode()
```

---

 ISOConstraint

*ISOConstraint*


---

**Description**

ISOConstraint

ISOConstraint

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an ISOConstraint

**Super classes**
[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOConstraint
**Public fields**

description description: character

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

- [ISOConstraint\\$new\(\)](#)
- [ISOConstraint\\$setDescription\(\)](#)
- [ISOConstraint\\$clone\(\)](#)

**Method new():** Initializes object*Usage:*

ISOConstraint\$new(xml = NULL, description = NULL)

*Arguments:*xml object of class [XMLInternalNode-class](#)

description description

**Method setDescription():** Set description*Usage:*

ISOConstraint\$setDescription(description, locales = NULL)

*Arguments:*

description description

locales a list of localized descriptions. Default is NULL

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19110:2005 Methodology for Feature cataloguing

### Examples

```
md <- ISOConstraint$new(description = "description")
xml <- md$encode()
```

---

ISOConstraints

*ISOConstraints*

---

### Description

ISOConstraints

ISOConstraints

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO abstract Constraints

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOConstraints

### Public fields

`useLimitation` `useLimitation [0..*]: character`

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

- [ISOConstraints\\$new\(\)](#)
- [ISOConstraints\\$addUseLimitation\(\)](#)
- [ISOConstraints\\$setUseLimitation\(\)](#)
- [ISOConstraints\\$delUseLimitation\(\)](#)
- [ISOConstraints\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOConstraints$new(xml = NULL, defaults = list())
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`defaults` list of default values

**Method** `addUseLimitation()`: Adds a use limitation

*Usage:*

```
ISOConstraints$addUseLimitation(useLimitation, locales = NULL)
```

*Arguments:*

`useLimitation` use limitation

`locales` list of localized use limitations. Default is NULL

*Returns:* TRUE if added, FALSE otherwise

**Method** `setUseLimitation()`: Adds a use limitation

*Usage:*

```
ISOConstraints$setUseLimitation(useLimitation, locales = NULL)
```

*Arguments:*

`useLimitation` use limitation

`locales` list of localized use limitations. Default is NULL

**Method** `delUseLimitation()`: Deletes a use limitation

*Usage:*

```
ISOConstraints$delUseLimitation(useLimitation, locales = NULL)
```

*Arguments:*

`useLimitation` use limitation

`locales` list of localized use limitations. Default is NULL

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Abstract ISO class

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOContact

*ISOContact*

---

**Description**

ISOContact

ISOContact

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Contact

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOContact

**Public fields**

phone phone

address address

onlineResource online resource

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

- [ISOContact\\$new\(\)](#)
- [ISOContact\\$setPhone\(\)](#)
- [ISOContact\\$setAddress\(\)](#)
- [ISOContact\\$setOnlineResource\(\)](#)
- [ISOContact\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISOContact\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setPhone():** Set phone

*Usage:*

ISOContact\$setPhone(phone)

*Arguments:*

phone object of class [ISOTelephone](#)

**Method setAddress():** Set address

*Usage:*

ISOContact\$setAddress(address)

*Arguments:*

address object of class [ISOAddress](#)

**Method setOnlineResource():** Set online resource

*Usage:*

ISOContact\$setOnlineResource(onlineResource)

*Arguments:*

onlineResource online resource, object of class [ISOOnlineResource](#)

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

*Usage:*

ISOContact\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
md <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
md$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
md$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
md$setOnlineResource(res)
xml <- md$encode()
```

---

ISOContentInformation *ISOContentInformation*

---

## Description

ISOContentInformation  
ISOContentInformation

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISOContentInformation

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOContentInformation

## Methods

### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

ISOContentInformation\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

ISOContentInformation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Note

Abstract class. Used internally by **geometa**

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOCountry

*ISOCountry*

---

### Description

ISOCountry

ISOCountry

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Country

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOCountry



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

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

**Method new():** Initializes object

*Usage:*

```
ISOCountry$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOCountry$values(labels = TRUE)

#some charset
charset <- ISOCountry$new(value = "utf8")
```

---

ISOCoupledResource      *ISOCoupledResource*

---

**Description**

ISOCoupledResource

ISOCoupledResource

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOCoupledResource

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOCoupledResource

**Public fields**

operationName operationName [1..1]: character

identifier identifier [1..1]: character

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

- [ISOCoupledResource\\$new\(\)](#)
- [ISOCoupledResource\\$setOperationName\(\)](#)
- [ISOCoupledResource\\$setIdentifier\(\)](#)
- [ISOCoupledResource\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

[ISOCoupledResource\\$new](#)(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setOperationName():** Set operation name

*Usage:*

[ISOCoupledResource\\$setOperationName](#)(operationName, locales = NULL)

*Arguments:*

operationName operation name

locales a list of localized names. Default is NULL

**Method setIdentifier():** Set identifier

*Usage:*

[ISOCoupledResource\\$setIdentifier](#)(identifier, locales = NULL)

*Arguments:*

identifier identifier

locales a list of localized identifiers. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19119:2005 - Geographic information – Services

**Examples**

```
md <- ISOCoupledResource$new()
md$setOperationName("name")
md$setIdentifier("identifier")
xml <- md$encode()
```

---

ISOCouplingType	<i>ISOCouplingType</i>
-----------------	------------------------

---

**Description**

ISOCouplingType

ISOCouplingType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOCouplingType

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodelistValue
-> ISOCouplingType
```

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOCouplingType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`value` value

`description` description

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19119:2005 - Geographic information – Services

**Examples**

```
#possible values
values <- ISOCouplingType$values(labels = TRUE)

#couplingType
couplingType <- ISOCouplingType$new(value = "loose")
```

---

ISOCoverageContentType

*ISOCoverageContentType*

---

**Description**

ISOCoverageContentType

ISOCoverageContentType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO CoverageContentType

**Methods**

`new(xml, value, description)` This method is used to instantiate an [ISOCoverageContentType](#)

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> [ISOCoverageContentType](#)

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOCoverageContentType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`value` value

`description` description

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOCoverageContentType$values(labels = TRUE)

#example of CoverageContentType
modelResultType <- ISOCoverageContentType$new(value = "modelResult")
```

---

ISOCoverageDescription

*ISOCoverageDescription*

---

**Description**

ISOCoverageDescription

ISOCoverageDescription

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOCoverageDescription

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOContentInformation
-> ISOCoverageDescription
```

**Public fields**

attributeDescription attributeDescription: ISoRecordType

contentType contentType: ISOCoverageContentType

dimension dimension: ISORangeDimension

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

- [ISOCoverageDescription\\$new\(\)](#)
- [ISOCoverageDescription\\$setAttributeDescription\(\)](#)
- [ISOCoverageDescription\\$setContentType\(\)](#)
- [ISOCoverageDescription\\$addDimension\(\)](#)
- [ISOCoverageDescription\\$delDimension\(\)](#)
- [ISOCoverageDescription\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

ISOCoverageDescription\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setAttributeDescription(): Set attribute description

*Usage:*

ISOCoverageDescription\$setAttributeDescription(attributeDescription)

*Arguments:*

attributeDescription attribute description, object of class [ISORRecordType](#) or [character](#)

**Method** setContentType(): Set content type

*Usage:*

ISOCoverageDescription\$setContentType(contentType)

*Arguments:*

contentType contentType, object of class [ISOCoverageContentType](#) or [character](#)

**Method** addDimension(): Adds dimension

*Usage:*

ISOCoverageDescription\$addDimension(dimension)

*Arguments:*

dimension object of class [ISORangeDimension](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delDimension(): Deletes dimension

*Usage:*

ISOCoverageDescription\$delDimension(dimension)

*Arguments:*

dimension object of class [ISORangeDimension](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOCoverageDescription\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create coverage description
md <- ISOCoverageDescription$new()
md$setAttributeDescription("test")
md$setContentTypes("modelResult")

#adding 3 arbitrary dimensions
for(i in 1:3){
  band <- ISOBand$new()
  mn <- ISOMemberName$new(aName = sprintf("name %s",i), attributeType = sprintf("type %s",i))
  band$setSequenceIdentifier(mn)
  band$setDescriptor("descriptor")
  band$setMaxValue(10)
  band$setMinValue(1)
  gml <- GMLBaseUnit$new(id = sprintf("ID%s",i))
  gml$setDescriptionReference("someref")
  gml$setIdentifier("identifier", "codespace")
  gml$addName("name1", "codespace")
  gml$addName("name2", "codespace")
  gml$setQuantityTypeReference("someref")
  gml$setCatalogSymbol("symbol")
  gml$setUnitsSystem("somelink")
  band$setUnits(gml)
  band$setPeakResponse(9)
  band$setBitsPerValue(5)
  band$setToneGradation(100)
  band$setScaleFactor(1)
  band$setOffset(4)
  md$addDimension(band)
}
xml <- md$encode()
```

---

ISODataFile

*ISODataFile*

---

**Description**

ISODataFile

ISODataFile

**Format**

[R6Class](#) object.



**Value**

Object of [R6Class](#) for modelling an ISO DataFile

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODataFile

**Public fields**

fileName fileName [1..1]: ISOFileName

fileDescription fileDescription [1..1]: character|ISOLocalisedCharacterString

fileType fileType [1..1]: ISOMimeFileType

featureTypes featureTypes [0..\*]: ISOLocalName|ISOScopedName

fileFormat fileFormat [1..1]: ISOFormat

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

- [ISODataFile\\$new\(\)](#)
- [ISODataFile\\$setFileName\(\)](#)
- [ISODataFile\\$setFileDescription\(\)](#)
- [ISODataFile\\$setFileType\(\)](#)
- [ISODataFile\\$addFeatureType\(\)](#)
- [ISODataFile\\$delFeatureType\(\)](#)
- [ISODataFile\\$setFileFormat\(\)](#)
- [ISODataFile\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

```
ISODataFile$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setFileName(): Set file name

*Usage:*

```
ISODataFile$setFileName(fileName)
```

*Arguments:*

fileName object of class [ISOFileName](#)

**Method** setFileDescription(): Set file description

*Usage:*

```
ISODataFile$setFileDescription(fileDescription, locales = NULL)
```

*Arguments:*

fileDescription object of class [character](#)  
locales list of localized descriptions. Default is NULL

**Method** setFileType(): Set file type

*Usage:*

ISODataFile\$setFileType(fileType)

*Arguments:*

fileType object of class [ISOMimeFileType](#)

**Method** addFeatureType(): Adds feature type

*Usage:*

ISODataFile\$addFeatureType(featureType)

*Arguments:*

featureType object of class [ISOLocalName](#), [ISOScopedName](#) or [character](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delFeatureType(): Deletes feature type

*Usage:*

ISODataFile\$delFeatureType(featureType)

*Arguments:*

featureType object of class [ISOLocalName](#), [ISOScopedName](#) or [character](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setFileFormat(): Set file format

*Usage:*

ISODataFile\$setFileFormat(fileFormat)

*Arguments:*

fileFormat file format, object of class [ISOFormat](#)

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

*Usage:*

ISODataFile\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO/TS 19139:2007 Geographic information – XML

**Examples**

```

md <- ISODataFile$new()
md$setFileName(ISOFileName$new(file = "someuri", name = "filename"))
md$setFileDescription("description")
md$setFileType(ISOMimeType$new(type = "somemimetype", name = "Mime type name"))
md$addFeatureType("feature_type")
f <- ISOFormat$new()
f$setName("name")
f$setVersion("1.0")
f$setAmendmentNumber("2")
f$setSpecification("specification")
md$setFileFormat(f)
xml <- md$encode()

```

---

ISODataIdentification *ISODataIdentification*

---

**Description**

ISODataIdentification  
ISODataIdentification

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO DataIdentification

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOIdentification](#)  
-> ISODataIdentification

**Public fields**

spatialRepresentationType spatialRepresentationType [0..\*]: ISOSpatialRepresentationType  
spatialResolution spatialResolution [0..\*]: ISOResolution  
language language [1..\*]: character  
characterSet characterSet [0..\*]: ISOCharacterSet  
topicCategory topicCategory [0..\*]: ISOTopicCategory  
extent extent [0..\*]: ISOExtent  
supplementalInformation supplementalInformation

## Methods

### Public methods:

- [ISODataIdentification\\$new\(\)](#)
- [ISODataIdentification\\$addSpatialRepresentationType\(\)](#)
- [ISODataIdentification\\$setSpatialRepresentationType\(\)](#)
- [ISODataIdentification\\$delSpatialRepresentationType\(\)](#)
- [ISODataIdentification\\$addSpatialResolution\(\)](#)
- [ISODataIdentification\\$delSpatialResolution\(\)](#)
- [ISODataIdentification\\$addLanguage\(\)](#)
- [ISODataIdentification\\$setLanguage\(\)](#)
- [ISODataIdentification\\$delLanguage\(\)](#)
- [ISODataIdentification\\$addCharacterSet\(\)](#)
- [ISODataIdentification\\$setCharacterSet\(\)](#)
- [ISODataIdentification\\$delCharacterSet\(\)](#)
- [ISODataIdentification\\$addTopicCategory\(\)](#)
- [ISODataIdentification\\$setTopicCategory\(\)](#)
- [ISODataIdentification\\$delTopicCategory\(\)](#)
- [ISODataIdentification\\$addExtent\(\)](#)
- [ISODataIdentification\\$setExtent\(\)](#)
- [ISODataIdentification\\$delExtent\(\)](#)
- [ISODataIdentification\\$setSupplementalInformation\(\)](#)
- [ISODataIdentification\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISODataIdentification$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addSpatialRepresentationType\(\)](#): Adds spatial representation type

*Usage:*

```
ISODataIdentification$addSpatialRepresentationType(spatialRepresentationType)
```

*Arguments:*

spatialRepresentationType object of class [ISOSpatialRepresentationType](#) or any **character** among values returned by [ISOSpatialRepresentationType\\$values\(\)](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [setSpatialRepresentationType\(\)](#): Sets spatial representation type

*Usage:*

```
ISODataIdentification$setSpatialRepresentationType(spatialRepresentationType)
```

*Arguments:*

spatialRepresentationType object of class [ISOSpatialRepresentationType](#) or any [character](#) among values returned by `ISOSpatialRepresentationType$values()`

*Returns:* TRUE if added, FALSE otherwise

**Method** `delSpatialRepresentationType()`: Deletes spatial representation type

*Usage:*

`ISODataIdentification$delSpatialRepresentationType(spatialRepresentationType)`

*Arguments:*

spatialRepresentationType object of class [ISOSpatialRepresentationType](#) or any [character](#) among values returned by `ISOSpatialRepresentationType$values()`

*Returns:* TRUE if deleted, FALSE otherwise

**Method** `addSpatialResolution()`: Adds spatial resolution

*Usage:*

`ISODataIdentification$addSpatialResolution(resolution)`

*Arguments:*

resolution object of class [ISOResolution](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delSpatialResolution()`: Deletes spatial resolution

*Usage:*

`ISODataIdentification$delSpatialResolution(resolution)`

*Arguments:*

resolution object of class [ISOResolution](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** `addLanguage()`: Adds language

*Usage:*

`ISODataIdentification$addLanguage(locale)`

*Arguments:*

locale object of class [ISOLanguage](#) or any [character](#) value among those returned by `ISOLanguage$values()`

*Returns:* TRUE if added, FALSE otherwise

**Method** `setLanguage()`: Sets language

*Usage:*

`ISODataIdentification$setLanguage(locale)`

*Arguments:*

locale object of class [ISOLanguage](#) or any [character](#) value among those returned by `ISOLanguage$values()`

*Returns:* TRUE if added, FALSE otherwise

**Method** `delLanguage()`: Deletes language

*Usage:*

ISODataIdentification\$delLanguage(locale)

*Arguments:*

locale object of class [ISOLanguage](#) or any [character](#) value among those returned by ISOLanguage\$values()

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addCharacterSet(): Adds character set

*Usage:*

ISODataIdentification\$addCharacterSet(charset)

*Arguments:*

charset object of class [ISOCharacterSet](#) or any [character](#) value among those returned by ISOCharacterSet\$values()

*Returns:* TRUE if added, FALSE otherwise

**Method** setCharacterSet(): Sets character set

*Usage:*

ISODataIdentification\$setCharacterSet(charset)

*Arguments:*

charset object of class [ISOCharacterSet](#) or any [character](#) value among those returned by ISOCharacterSet\$values()

*Returns:* TRUE if added, FALSE otherwise

**Method** delCharacterSet(): Deletes character set

*Usage:*

ISODataIdentification\$delCharacterSet(charset)

*Arguments:*

charset object of class [ISOCharacterSet](#) or any [character](#) value among those returned by ISOCharacterSet\$values()

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addTopicCategory(): Adds topic category

*Usage:*

ISODataIdentification\$addTopicCategory(topicCategory)

*Arguments:*

topicCategory object of class [ISOTopicCategory](#) or any [character](#) value among those returned by ISOTopicCategory\$values()

*Returns:* TRUE if added, FALSE otherwise

**Method** setTopicCategory(): Sets topic category

*Usage:*

ISODataIdentification\$setTopicCategory(topicCategory)

*Arguments:*

topicCategory object of class [ISOTopicCategory](#) or any [character](#) value topicCategory those returned by ISOTopicCategory\$values()

*Returns:* TRUE if added, FALSE otherwise

**Method** delTopicCategory(): Deletes topic category

*Usage:*

```
ISODataIdentification$delTopicCategory(topicCategory)
```

*Arguments:*

topicCategory object of class [ISOTopicCategory](#) or any [character](#) value among those returned by [ISOTopicCategory\\$values\(\)](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addExtent(): Adds extent

*Usage:*

```
ISODataIdentification$addExtent(extent)
```

*Arguments:*

extent object of class [ISOExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setExtent(): Sets extent

*Usage:*

```
ISODataIdentification$setExtent(extent)
```

*Arguments:*

extent object of class [ISOExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delExtent(): Deletes extent

*Usage:*

```
ISODataIdentification$delExtent(extent)
```

*Arguments:*

extent object of class [ISOExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setSupplementalInformation(): Set supplemental information

*Usage:*

```
ISODataIdentification$setSupplementalInformation(  
  supplementalInformation,  
  locales = NULL  
)
```

*Arguments:*

supplementalInformation supplemental information

locales a list of localized information. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create dataIdentification
md <- ISODataIdentification$new()
md$setAbstract("abstract")
md$setPurpose("purpose")
md$addLanguage("eng")
md$addCharacterSet("utf8")
md$addTopicCategory("biota")
md$addTopicCategory("oceans")

#adding a point of contact
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
md$addPointOfContact(rp)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015, 1, 1, 1))
```



```
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp)
md$setCitation(ct)

#graphic overview
go <- ISOBrowseGraphic$new(
  fileName = "http://www.somefile.org/png",
  fileDescription = "Map Overview",
  fileType = "image/png"
)
md$addGraphicOverview(go)

#maintenance information
mi <- ISOMaintenanceInformation$new()
mi$setMaintenanceFrequency("daily")
md$addResourceMaintenance(mi)

#adding legal constraints
lc <- ISOLegalConstraints$new()
lc$addUseLimitation("limitation1")
lc$addUseLimitation("limitation2")
lc$addUseLimitation("limitation3")
lc$addAccessConstraint("copyright")
lc$addAccessConstraint("license")
lc$addUseConstraint("copyright")
lc$addUseConstraint("license")
md$addResourceConstraints(lc)

#adding extent
extent <- ISOExtent$new()
bbox <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
extent$addGeographicElement(bbox)
md$addExtent(extent)

#add keywords
kwds <- ISOKeywords$new()
kwds$addKeyword("keyword1")
kwds$addKeyword("keyword2")
kwds$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle("General")
th$addDate(d)
kwds$setThesaurusName(th)
md$addKeywords(kwds)

#supplementalInformation
md$setSupplementalInformation("some additional information")

xml <- md$encode()
```

---

ISODataQuality

*ISODataQuality*

---

### Description

ISODataQuality

ISODataQuality

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO DataQuality

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODataQuality

### Public fields

scope scope

report list of reports

lineage lineage

### Methods

#### Public methods:

- [ISODataQuality\\$new\(\)](#)
- [ISODataQuality\\$setScope\(\)](#)
- [ISODataQuality\\$addReport\(\)](#)
- [ISODataQuality\\$setLineage\(\)](#)
- [ISODataQuality\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISODataQuality\\$new](#)(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setScope\(\)](#): Set scope

*Usage:*

[ISODataQuality\\$setScope](#)(scope)

*Arguments:*

scope scope

**Method** addReport(): Adds report

*Usage:*

ISODataQuality\$addReport(report)

*Arguments:*

report report, object of class [ISODomainConsistency](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setLineage(): Set lineage

*Usage:*

ISODataQuality\$setLineage(lineage)

*Arguments:*

lineage lineage, object of class [ISOLineage](#)

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

*Usage:*

ISODataQuality\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
#create dataQuality object with a 'dataset' scope
dq <- ISODataQuality$new()
scope <- ISOScope$new()
scope$setLevel("dataset")
dq$setScope(scope)

#add data quality reports...

#add a report the data quality
dc <- ISODomainConsistency$new()
result <- ISOConformanceResult$new()
spec <- ISOCitation$new()
spec$setTitle("Data Quality check")
spec$addAlternateTitle("This is is some data quality check report")
d <- ISODate$new()
```

```

d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dc$addResult(result)
dq$addReport(dc)

#add INSPIRE reports?
#INSPIRE - interoperability of spatial data sets and services
dc_inspire1 <- ISODomainConsistency$new()
cr_inspire1 <- ISOConformanceResult$new()
cr_inspire_spec1 <- ISOCitation$new()
cr_title <- paste(
  "Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC",
  "of the European Parliament and of the Council as regards interoperability of spatial data",
  "sets and services"
)
cr_inspire_spec1$setTitle(cr_title)
cr_inspire1$setExplanation("See the referenced specification")
cr_inspire_date1 <- ISODate$new()
cr_inspire_date1$setDate(ISOdate(2010,12,8))
cr_inspire_date1$setDateType("publication")
cr_inspire_spec1$addDate(cr_inspire_date1)
cr_inspire1$setSpecification(cr_inspire_spec1)
cr_inspire1$setPass(TRUE)
dc_inspire1$addResult(cr_inspire1)
dq$addReport(dc_inspire1)
#INSPIRE - metadata
dc_inspire2 <- ISODomainConsistency$new()
cr_inspire2 <- ISOConformanceResult$new()
cr_inspire_spec2 <- ISOCitation$new()
cr_title2 <- paste(
  "COMMISSION REGULATION (EC) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC",
  "of the European Parliament and of the Council as regards metadata"
)
cr_inspire_spec2$setTitle(cr_title2)
cr_inspire2$setExplanation("See the referenced specification")
cr_inspire_date2 <- ISODate$new()
cr_inspire_date2$setDate(ISOdate(2008,12,4))
cr_inspire_date2$setDateType("publication")
cr_inspire_spec2$addDate(cr_inspire_date2)
cr_inspire2$setSpecification(cr_inspire_spec2)
cr_inspire2$setPass(TRUE)
dc_inspire2$addResult(cr_inspire2)
dq$addReport(dc_inspire2)

#add lineage (more example of lineages in ISOLineage documentation)
lineage <- ISOLineage$new()
lineage$setStatement("statement")
dq$setLineage(lineage)

```

```
#xml
xml <- dq$encode()
```

---

```
ISODataQualityAbstractElement
      ISODataQualityAbstractElement
```

---

### Description

ISODataQualityAbstractElement  
ISODataQualityAbstractElement

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISODataQualityAbstractElement

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODataQualityAbstractElement

### Public fields

nameOfMeasure nameOfMeasure [0..\*]: character  
 measureIdentification measureIdentification [0..1]: ISOMetaIdentifier  
 measureDescription measureDescription [0..1]: character  
 evaluationMethodType evaluationMethodType [0..1]: ISOEvaluationMethodType  
 evaluationMethodDescription evaluationMethodDescription [0..1]: character  
 evaluationProcedure evaluationProcedure [0..1]: ISOCitation  
 dateTime dateTime [0..1]: ISODateTime  
 result result [1..2]: ISOConformanceResult

### Methods

#### Public methods:

- [ISODataQualityAbstractElement\\$new\(\)](#)
- [ISODataQualityAbstractElement\\$addNameOfMeasure\(\)](#)
- [ISODataQualityAbstractElement\\$delNameOfMeasure\(\)](#)
- [ISODataQualityAbstractElement\\$setMeasureIdentification\(\)](#)
- [ISODataQualityAbstractElement\\$setMeasureDescription\(\)](#)

- `ISODataQualityAbstractElement$setEvaluationMethodType()`
- `ISODataQualityAbstractElement$setEvaluationMethodDescription()`
- `ISODataQualityAbstractElement$setEvaluationProcedure()`
- `ISODataQualityAbstractElement$setDateTime()`
- `ISODataQualityAbstractElement$addResult()`
- `ISODataQualityAbstractElement$delResult()`
- `ISODataQualityAbstractElement$clone()`

**Method** `new()`: Initializes object

*Usage:*

```
ISODataQualityAbstractElement$new(xml = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `addNameOfMeasure()`: Adds name of measure

*Usage:*

```
ISODataQualityAbstractElement$addNameOfMeasure(name, locales = NULL)
```

*Arguments:*

`name` name

`locales` list of localized names. Default is NULL

*Returns:* TRUE if added, FALSE

**Method** `delNameOfMeasure()`: Deletes name of measure

*Usage:*

```
ISODataQualityAbstractElement$delNameOfMeasure(name, locales = NULL)
```

*Arguments:*

`name` name

`locales` list of localized names. Default is NULL

*Returns:* TRUE if deleted, FALSE

**Method** `setMeasureIdentification()`: Set measure identification

*Usage:*

```
ISODataQualityAbstractElement$setMeasureIdentification(identification)
```

*Arguments:*

`identification` object of class [ISOMetaIdentifier](#)

**Method** `setMeasureDescription()`: Set measure description

*Usage:*

```
ISODataQualityAbstractElement$setMeasureDescription(
  description,
  locales = NULL
)
```

*Arguments:*

description object of class [character](#)  
locales list of localized descriptions. Default is NULL

**Method** setEvaluationMethodType(): Set evaluation method type

*Usage:*

```
ISODataQualityAbstractElement$setEvaluationMethodType(type)
```

*Arguments:*

type object of class [ISOEvaluationMethodType](#) or any [character](#) value from those returned by [ISOEvaluationMethodType\\$values\(\)](#)

**Method** setEvaluationMethodDescription(): Set evaluation method description

*Usage:*

```
ISODataQualityAbstractElement$setEvaluationMethodDescription(  
  description,  
  locales = NULL  
)
```

*Arguments:*

description description  
locales list of localized descriptions. Default is NULL

**Method** setEvaluationProcedure(): Set evaluation procedure

*Usage:*

```
ISODataQualityAbstractElement$setEvaluationProcedure(procedure)
```

*Arguments:*

procedure procedure, object of class [ISOCitation](#)

**Method** setDateTime(): Set date time

*Usage:*

```
ISODataQualityAbstractElement$setDateTime(dateTime)
```

*Arguments:*

dateTime date time, object of class [POSIXct](#)

**Method** addResult(): Adds result

*Usage:*

```
ISODataQualityAbstractElement$addResult(result)
```

*Arguments:*

result object of class [ISOConformanceResult](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delResult(): Deletes result

*Usage:*

```
ISODataQualityAbstractElement$delResult(result)
```

*Arguments:*

result object of class [ISOConformanceResult](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISODataSet

*ISODataSet*

---

**Description**

ISODataSet

ISODataSet

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISODataSet

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODataSet

**Public fields**

has has [1..\*]

partOf partOf [0..\*]



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

- [ISODataset\\$new\(\)](#)
- [ISODataset\\$addHasMetadata\(\)](#)
- [ISODataset\\$delHasMetadata\(\)](#)
- [ISODataset\\$addPartOf\(\)](#)
- [ISODataset\\$delPartOf\(\)](#)
- [ISODataset\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISODataset$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `addHasMetadata()`: Adds metadata

*Usage:*

`ISODataset$addHasMetadata(metadata)`

*Arguments:*

`metadata` metadata, object of class [ISOMetadata](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delHasMetadata()`: Deletes metadata

*Usage:*

`ISODataset$delHasMetadata(metadata)`

*Arguments:*

`metadata` metadata, object of class [ISOMetadata](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** `addPartOf()`: Adds aggregate dataset is part of

*Usage:*

`ISODataset$addPartOf(partOf)`

*Arguments:*

`partOf` object inheriting class [ISOAbstractAggregate](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delPartOf()`: Deletes aggregate dataset is part of

*Usage:*

`ISODataset$delPartOf(partOf)`

*Arguments:*

`partOf` object inheriting class [ISOAbstractAggregate](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISODatatype

*ISODatatype*

---

### Description

ISODatatype

ISODatatype

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Datatype

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISODatatype

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISODatatype$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 value value  
 description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISODatatype$values(labels = TRUE)

#string Datatype
stringType <- ISODatatype$new(value = "characterString")
```

---

ISODate

*ISODate*

---

**Description**

ISODate

ISODate

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Date

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODate

**Public fields**

date date

dateType date type

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

- [ISODate\\$new\(\)](#)
- [ISODate\\$setDate\(\)](#)
- [ISODate\\$setDateType\(\)](#)
- [ISODate\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISODate$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setDate()`: Set date

*Usage:*

`ISODate$setDate(date)`

*Arguments:*

`date` object of class [Date](#) or [POSIXct](#)

**Method** `setDateType()`: Set date type

*Usage:*

`ISODate$setDateType(dateType)`

*Arguments:*

`dateType` object of class [ISODateType](#) or any [character](#) values returned by `ISODateType$values()`

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

*Usage:*

`ISODate$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISODate$new()
md$setDate(ISOdate(2015, 1, 1, 1))
md$setDateType("publication")
xml <- md$encode()
```

ISODateType

*ISODateType***Description**

ISODateType

ISODateType

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO DateType**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodelistValue
-> ISODateType
```

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

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

**Method** `new()`: Initializes object*Usage:*`ISODateType$new(xml = NULL, value = NULL, description = NULL)`*Arguments:*xml object of class [XMLInternalNode-class](#)

value value

description description

**Method** `clone()`: The objects of this class are cloneable with this method.*Usage:*`ISODateType$clone(deep = FALSE)`*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISODateType$values(labels = TRUE)

#creation datatype
creation <- ISODateType$new(value = "creation")
```

---

ISODCPList

*ISODCPList*

---

**Description**

ISODCPList

ISODCPList

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO DCPList

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue
-> ISODCPList
```

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISODCPList$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
value value  
description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19119:2005 - Geographic information – Service

### Examples

```
#possible values
values <- ISODCPList$values(labels = TRUE)

#example
javaDCP <- ISODCPList$new(value = "JAVA")
```

---

ISODefinitionReference

*ISODefinitionReference*

---

### Description

ISODefinitionReference

ISODefinitionReference

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISODefinitionReference

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODefinitionReference

**Public fields**

sourceIdentifier sourceIdentifier [0..1]: character  
definitionSource definitionSource: ISODefinitionSource

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

- [ISODefinitionReference\\$new\(\)](#)
- [ISODefinitionReference\\$setSourceIdentifier\(\)](#)
- [ISODefinitionReference\\$setDefinitionSource\(\)](#)
- [ISODefinitionReference\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

ISODefinitionReference\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setSourceIdentifier(): Set source identifier

*Usage:*

ISODefinitionReference\$setSourceIdentifier(identifier)

*Arguments:*

identifier identifier

**Method** setDefinitionSource(): Set definition source

*Usage:*

ISODefinitionReference\$setDefinitionSource(source)

*Arguments:*

source object of class [ISODefinitionSource](#) or [ISOCitation](#)

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

*Usage:*

ISODefinitionReference\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing



---

ISODefinitionSource *ISODefinitionSource*

---

## Description

ISODefinitionSource

ISODefinitionSource

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISODefinitionSource

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODefinitionSource

## Public fields

source source [0..1]: ISOCitation

## Methods

### Public methods:

- [ISODefinitionSource\\$new\(\)](#)
- [ISODefinitionSource\\$setSource\(\)](#)
- [ISODefinitionSource\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISODefinitionSource\\$new\(xml = NULL, source = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

source source object of class [ISOCitation](#)

**Method** [setSource\(\)](#): Set source

*Usage:*

[ISODefinitionSource\\$setSource\(source\)](#)

*Arguments:*

source object of class [ISOCitation](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISODigitalTransferOptions  
*ISODigitalTransferOptions*

---

**Description**

ISODigitalTransferOptions

ISODigitalTransferOptions

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO DigitalTransferOptions

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODigitalTransferOptions

**Public fields**

unitsOfDistribution unitsOfDistribution [0..1]: character

transferSize transferSize [0..1]: integer

onLine onLine [0..\*]: ISOOnlineResource

offLine offLine [0..1]: MD\_Medium

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

- [ISODigitalTransferOptions\\$new\(\)](#)
- [ISODigitalTransferOptions\\$setUnitsOfDistribution\(\)](#)
- [ISODigitalTransferOptions\\$setTransferSize\(\)](#)
- [ISODigitalTransferOptions\\$addOnlineResource\(\)](#)
- [ISODigitalTransferOptions\\$setOnlineResource\(\)](#)
- [ISODigitalTransferOptions\\$delOnlineResource\(\)](#)
- [ISODigitalTransferOptions\\$addOfflineResource\(\)](#)
- [ISODigitalTransferOptions\\$setOfflineResource\(\)](#)
- [ISODigitalTransferOptions\\$delOfflineResource\(\)](#)
- [ISODigitalTransferOptions\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISODigitalTransferOptions$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setUnitsOfDistribution\(\)](#): Set units of distribution

*Usage:*

```
ISODigitalTransferOptions$setUnitsOfDistribution(unit)
```

*Arguments:*

unit unit

**Method** [setTransferSize\(\)](#): Set transfer size

*Usage:*

```
ISODigitalTransferOptions$setTransferSize(transferSize)
```

*Arguments:*

transferSize transfer size

**Method** [addOnlineResource\(\)](#): Adds online resource

*Usage:*

```
ISODigitalTransferOptions$addOnlineResource(onlineResource)
```

*Arguments:*

onlineResource object of class [ISOOnlineResource](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [setOnlineResource\(\)](#): Sets online resource

*Usage:*

```
ISODigitalTransferOptions$setOnlineResource(onlineResource)
```

*Arguments:*

onlineResource object of class [ISOOnlineResource](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delOnlineResource(): Deletes online resource

*Usage:*

ISODigitalTransferOptions\$delOnlineResource(onlineResource)

*Arguments:*

onlineResource object of class [ISOOnlineResource](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addOfflineResource(): Adds offline resource

*Usage:*

ISODigitalTransferOptions\$addOfflineResource(offlineResource)

*Arguments:*

offlineResource object of class [ISOMedium](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setOfflineResource(): Sets offline resource

*Usage:*

ISODigitalTransferOptions\$setOfflineResource(offlineResource)

*Arguments:*

offlineResource object of class [ISOMedium](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delOfflineResource(): Deletes offline resource

*Usage:*

ISODigitalTransferOptions\$delOfflineResource(offlineResource)

*Arguments:*

offlineResource object of class [ISOMedium](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISODigitalTransferOptions\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISODigitalTransferOptions$new()

or <- ISOOnlineResource$new()
or$setLinkage("http://somelink")
or$setName("name")
or$setDescription("description")
or$setProtocol("WWW:LINK-1.0-http--link")
md$addOnlineResource(or)

xml <- md$encode()
```

---

ISODimension	<i>ISODimension</i>
--------------	---------------------

---

**Description**

ISODimension  
ISODimension

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Dimension

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODimension

**Public fields**

dimensionName dimensionName [1..1]: ISODimensionNameType  
dimensionSize dimensionSize [1..1]: integer  
resolution resolution [0..1]: ISOMeasure or subclass

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

- [ISODimension\\$new\(\)](#)
- [ISODimension\\$setName\(\)](#)
- [ISODimension\\$setSize\(\)](#)
- [ISODimension\\$setResolution\(\)](#)

- [ISODimension\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISODimension\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setName():** Set name

*Usage:*

ISODimension\$setName(name)

*Arguments:*

name object of class [ISODimensionNameType](#) or any [character](#) among values returned by [ISODimensionNameType\\$valu](#)

**Method setSize():** Set size

*Usage:*

ISODimension\$setSize(size)

*Arguments:*

size object of class [integer](#)

**Method setResolution():** Sets the resolution

*Usage:*

ISODimension\$setResolution(resolution)

*Arguments:*

resolution object of class [ISOMeasure](#) or any subclass [ISOLength](#), [ISODistance](#), [ISOAngle](#), [ISOScale](#)

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

*Usage:*

ISODimension\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create dimension
md <- ISODimension$new()
md$setName("row")
md$setSize(1)
md$setResolution(ISOLength$new(value=1,uom="m"))
xml <- md$encode()
```

---

ISODimensionNameType *ISODimensionNameType*

---

**Description**

ISODimensionNameType

ISODimensionNameType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO DimensionNameType

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISODimensionNameType

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

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

**Method** `new()`: Initializes object

*Usage:*

`ISODimensionNameType$new(xml = NULL, value, description = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
#possible values
values <- ISODimensionNameType$values(labels = TRUE)

#row DimensionNameType
rowType <- ISODimensionNameType$new(value = "row")
```

---

ISODistance

*ISODistance*

---

### Description

ISODistance

ISODistance

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Distance measure

### Methods

`new(xml, value, uom, useUomURI)` This method is used to instantiate an ISODistance. The `uom` argument represents the symbol of unit of measure used. The parameter `useUomURI` can be used to set the `uom` as URI, its default value is FALSE.

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOMeasure](#) -> [geometa::ISOLength](#)  
-> ISODistance



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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISODistance$new(xml = NULL, value, uom, useUomURI = FALSE)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`value` value

`uom` uom symbol of unit of measure used

`useUomURI` use uom URI. Default is FALSE

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISODistribution

*ISODistribution*

---

**Description**

ISODistribution

ISODistribution

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Distribution

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODistribution

**Public fields**

distributionFormat distributionFormat [0..\*]: ISOFormat

distributor distributor [0..\*]: ISODistributor

transferOptions transferOptions [0..\*]: ISODigitalTransferOptions

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

- [ISODistribution\\$new\(\)](#)
- [ISODistribution\\$addFormat\(\)](#)
- [ISODistribution\\$delFormat\(\)](#)
- [ISODistribution\\$addDistributor\(\)](#)
- [ISODistribution\\$delDistributor\(\)](#)
- [ISODistribution\\$addDigitalTransferOptions\(\)](#)
- [ISODistribution\\$setDigitalTransferOptions\(\)](#)
- [ISODistribution\\$delDigitalTransferOptions\(\)](#)
- [ISODistribution\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISODistribution\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addFormat\(\)](#): Adds format

*Usage:*

[ISODistribution\\$addFormat\(format\)](#)

*Arguments:*

format format object of class [ISOFormat](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delFormat\(\)](#): Deletes format

*Usage:*

[ISODistribution\\$delFormat\(format\)](#)

*Arguments:*

format format object of class [ISOFormat](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** [addDistributor\(\)](#): Adds distributor

*Usage:*`ISODistribution$addDistributor(distributor)`*Arguments:*`distributor` distributor object of class [ISODistributor](#)*Returns:* TRUE if added, FALSE otherwise**Method** `delDistributor()`: Deletes distributor*Usage:*`ISODistribution$delDistributor(distributor)`*Arguments:*`distributor` distributor object of class [ISODistributor](#)*Returns:* TRUE if deleted, FALSE otherwise**Method** `addDigitalTransferOptions()`: Adds digital transfer options*Usage:*`ISODistribution$addDigitalTransferOptions(options)`*Arguments:*`options` options object of class [ISODigitalTransferOptions](#)*Returns:* TRUE if added, FALSE otherwise**Method** `setDigitalTransferOptions()`: Sets digital transfer options*Usage:*`ISODistribution$setDigitalTransferOptions(options)`*Arguments:*`options` options object of class [ISODigitalTransferOptions](#)*Returns:* TRUE if added, FALSE otherwise**Method** `delDigitalTransferOptions()`: Deletes digital transfer options*Usage:*`ISODistribution$delDigitalTransferOptions(options)`*Arguments:*`options` options object of class [ISODigitalTransferOptions](#)*Returns:* TRUE if deleted, FALSE otherwise**Method** `clone()`: The objects of this class are cloneable with this method.*Usage:*`ISODistribution$clone(deep = FALSE)`*Arguments:*`deep` Whether to make a deep clone.**Author(s)**

Emmanuel Blondel &lt;emmanuel.blondel1@gmail.com&gt;

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISODistribution$new()

dto <- ISODigitalTransferOptions$new()
for(i in 1:3){
  or <- ISOOnlineResource$new()
  or$setLinkage(paste0("http://somelink",i))
  or$setName(paste0("name",i))
  or$setDescription(paste0("description",i))
  or$setProtocol("WWW:LINK-1.0-http--link")
  dto$addOnlineResource(or)
}
md$setDigitalTransferOptions(dto)

xml <- md$encode()
```

---

ISODistributionUnits *ISODistributionUnits*

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**Description**

ISODistributionUnits  
ISODistributionUnits

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO DistributionUnits

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISODistributionUnits

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISODistributionUnits$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
unit <- ISODistributionUnits$new(value = "unit")
```

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ISODistributor

*ISODistributor*

---

### Description

ISODistributor

ISODistributor

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISODistributor

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISODistributor

**Public fields**

distributorContact distributorContact : ISOResponsibleParty  
distributorFormat distributorFormat : ISOFormat

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

- [ISODistributor\\$new\(\)](#)
- [ISODistributor\\$setContact\(\)](#)
- [ISODistributor\\$addFormat\(\)](#)
- [ISODistributor\\$delFormat\(\)](#)
- [ISODistributor\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

ISODistributor\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setContact(): Set contact

*Usage:*

ISODistributor\$setContact(contact)

*Arguments:*

contact object of class [ISOResponsibleParty](#)

**Method** addFormat(): Adds format

*Usage:*

ISODistributor\$addFormat(format)

*Arguments:*

format format object of class [ISOFormat](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delFormat(): Deletes format

*Usage:*

ISODistributor\$delFormat(format)

*Arguments:*

format format object of class [ISOFormat](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISODistributor\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISODistributor$new()
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("Data manager")

contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
rp$setRole("author")
md$setContact(rp)

format <- ISOFormat$new()
format$setName("name")
format$setVersion("1.0")
format$setAmendmentNumber("2")
format$setSpecification("specification")
md$addFormat(format)

xml <- md$encode()
```

**Description**

ISODomainConsistency  
ISODomainConsistency

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISODomainConsistency

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [geometa::ISOAbstractLogicalConsistency](#) -> ISODomainConsistency

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

- [ISODomainConsistency\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#encoding
dq <- ISODomainConsistency$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
```



```

spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()

```

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ISOElementSequence      *ISOElementSequence*

---

### Description

ISOElementSequence  
ISOElementSequence

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOElementSequence

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOElementSequence

### Methods

#### Public methods:

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

**Method** [new\(\)](#): Initializes sequence object

*Usage:*

`ISOElementSequence$new(xml = NULL, ...)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

... other args

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Note

This class is used internally by geometa to deal with simple type not handled by proper class element. e.g. name property of ISOParameter class from ISO 19119:2005

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO/TS 19103:2005 Geographic information – Conceptual schema language

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ISOEvaluationMethodType

*ISOEvaluationMethodType*

---

### Description

ISOEvaluationMethodType

ISOEvaluationMethodType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO EvaluationMethodType

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOEvaluationMethodType

## Methods

### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOEvaluationMethodType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`value` value

`description` description

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
#possible values
values <- ISOEvaluationMethodType$values(labels = TRUE)

#example of EvaluationMethodType
indirect <- ISOEvaluationMethodType$new(value = "indirect")
```

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ISOExtendedElementInformation

*ISOExtendedElementInformation*

---

## Description

ISOExtendedElementInformation

ISOExtendedElementInformation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO ExtendedElementInformation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOExtendedElementInformation

**Public fields**

name name [1..1]: character  
 shortName shortName [0..1]: character  
 domainCode domainCode [0..1]: integer  
 definition definition [1..1]: character  
 obligation obligation [0..1]: ISOObligation  
 condition condition [0..1]: character  
 dataType dataType [1..1]: ISODatatype  
 maximumOccurrence maximumOccurrence [0..1]: character  
 domainValue domainValue [0..1]: character  
 parentEntity parentEntity [1..\*]: character  
 rule rule [1..1]: character  
 rationale rationale [0..\*]: character  
 source source [1..\*]: ISOResponsibleParty

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

- [ISOExtendedElementInformation\\$new\(\)](#)
- [ISOExtendedElementInformation\\$setName\(\)](#)
- [ISOExtendedElementInformation\\$setShortName\(\)](#)
- [ISOExtendedElementInformation\\$setDomainCode\(\)](#)
- [ISOExtendedElementInformation\\$setDefinition\(\)](#)
- [ISOExtendedElementInformation\\$setObligation\(\)](#)
- [ISOExtendedElementInformation\\$setCondition\(\)](#)
- [ISOExtendedElementInformation\\$setDatatype\(\)](#)
- [ISOExtendedElementInformation\\$setMaximumOccurrence\(\)](#)
- [ISOExtendedElementInformation\\$setDomainValue\(\)](#)
- [ISOExtendedElementInformation\\$addParentEntity\(\)](#)
- [ISOExtendedElementInformation\\$delParentEntity\(\)](#)
- [ISOExtendedElementInformation\\$setRule\(\)](#)

- `ISOExtendedElementInformation$addRationale()`
- `ISOExtendedElementInformation$delRationale()`
- `ISOExtendedElementInformation$addSource()`
- `ISOExtendedElementInformation$delSource()`
- `ISOExtendedElementInformation$clone()`

**Method** `new()`: Initializes object

*Usage:*

`ISOExtendedElementInformation$new(xml = NULL)`

*Arguments:*

`xml` object of class `XMLInternalNode-class`

**Method** `setName()`: Set name

*Usage:*

`ISOExtendedElementInformation$setName(name, locales = NULL)`

*Arguments:*

`name` name

`locales` list of localized names. Default is NULL

**Method** `setShortName()`: Set short name

*Usage:*

`ISOExtendedElementInformation$setShortName(shortName, locales = NULL)`

*Arguments:*

`shortName` short name

`locales` list of localized short names. Default is NULL

**Method** `setDomainCode()`: Set domain code

*Usage:*

`ISOExtendedElementInformation$setDomainCode(domainCode)`

*Arguments:*

`domainCode` domain code, object of class `integer`

**Method** `setDefinition()`: Set definition

*Usage:*

`ISOExtendedElementInformation$setDefinition(definition, locales = NULL)`

*Arguments:*

`definition` definition

`locales` list of localized definitions. Default is NULL

**Method** `setObligation()`: Set obligation

*Usage:*

`ISOExtendedElementInformation$setObligation(obligation)`

*Arguments:*

obligation obligation, object of class [ISOobligation](#) or any [character](#) value among those returned by ISOobligation\$values()

**Method** setCondition(): Set condition*Usage:*

```
ISOExtendedElementInformation$setCondition(condition, locales = NULL)
```

*Arguments:*

condition condition

locales list of localized conditions. Default is NULL

**Method** setDatatype(): Set data type*Usage:*

```
ISOExtendedElementInformation$setDatatype(dataType)
```

*Arguments:*

dataType data type, object of class [ISODatatype](#) or any [character](#) value among those returned by ISODatatype\$values()

**Method** setMaximumOccurrence(): Set maximum occurrence*Usage:*

```
ISOExtendedElementInformation$setMaximumOccurrence(maximumOccurrence)
```

*Arguments:*

maximumOccurrence max occurrence

**Method** setDomainValue(): Set domain value*Usage:*

```
ISOExtendedElementInformation$setDomainValue(domainValue)
```

*Arguments:*

domainValue domain value

**Method** addParentEntity(): Adds parent entity*Usage:*

```
ISOExtendedElementInformation$addParentEntity(entity)
```

*Arguments:*

entity parent entity

*Returns:* TRUE if added, FALSE otherwise

**Method** delParentEntity(): Deletes parent entity*Usage:*

```
ISOExtendedElementInformation$delParentEntity(entity)
```

*Arguments:*

entity parent entity

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setRule(): Set rule

*Usage:*

ISOExtendedElementInformation\$setRule(rule, locales = NULL)

*Arguments:*

rule rule

locales list of localized rules. Default is NULL

**Method** addRationale(): Adds rationale

*Usage:*

ISOExtendedElementInformation\$addRationale(rationale, locales = NULL)

*Arguments:*

rationale rationale

locales list of localized rationales. Default is NULL

*Returns:* TRUE if added, FALSE otherwise

**Method** delRationale(): Deletes rationale

*Usage:*

ISOExtendedElementInformation\$delRationale(rationale, locales = NULL)

*Arguments:*

rationale rationale

locales list of localized rationales. Default is NULL

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addSource(): Adds source

*Usage:*

ISOExtendedElementInformation\$addSource(source)

*Arguments:*

source source, object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSource(): Deletes source

*Usage:*

ISOExtendedElementInformation\$delSource(source)

*Arguments:*

source source, object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOExtendedElementInformation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOExtendedElementInformation$new()
md$setName("name")
md$setShortName("shortName")
md$setDomainCode(1L)
md$setDefinition("some definition")
md$setObligation("mandatory")
md$setCondition("no condition")
md$setDatatype("characterString")
md$setMaximumOccurrence("string")
md$setDomainValue("value")
md$addParentEntity("none")
md$setRule("rule")
md$addRationale("rationale")

#adding a source
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)

md$addSource(rp)

xml <- md$encode()
```



---

ISOExtent

*ISOExtent*

---

### Description

ISOExtent

ISOExtent

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Extent

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOExtent

### Public fields

geographicElement [geographicElement](#) [0..\*]: [ISOGeographicExtent](#)

temporalElement [temporalElement](#) [0..\*]: [ISOTemporalExtent](#)

verticalElement [verticalElement](#) [0..\*]: [ISOVerticalElement](#)

### Methods

#### Public methods:

- [ISOExtent\\$new\(\)](#)
- [ISOExtent\\$addGeographicElement\(\)](#)
- [ISOExtent\\$setGeographicElement\(\)](#)
- [ISOExtent\\$delGeographicElement\(\)](#)
- [ISOExtent\\$addTemporalElement\(\)](#)
- [ISOExtent\\$delTemporalElement\(\)](#)
- [ISOExtent\\$addVerticalElement\(\)](#)
- [ISOExtent\\$delVerticalElement\(\)](#)
- [ISOExtent\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOExtent\\$new](#)(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** addGeographicElement(): Adds geographic element

*Usage:*

ISOExtent\$addGeographicElement(element)

*Arguments:*

element object of class [ISOGeographicExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setGeographicElement(): Sets geographic element

*Usage:*

ISOExtent\$setGeographicElement(element)

*Arguments:*

element object of class [ISOGeographicExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delGeographicElement(): Deletes geographic element

*Usage:*

ISOExtent\$delGeographicElement(element)

*Arguments:*

element object of class [ISOGeographicExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addTemporalElement(): Adds temporal element

*Usage:*

ISOExtent\$addTemporalElement(element)

*Arguments:*

element object of class [ISOTemporalExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delTemporalElement(): Deletes temporal element

*Usage:*

ISOExtent\$delTemporalElement(element)

*Arguments:*

element object of class [ISOTemporalExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addVerticalElement(): Adds vertical element

*Usage:*

ISOExtent\$addVerticalElement(element)

*Arguments:*

element object of class [ISOVerticalExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delVerticalElement(): Deletes vertical element

*Usage:*

ISOExtent\$delVerticalElement(element)

*Arguments:*

element object of class [ISOVerticalExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOExtent\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

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ISOFeatureAssociation *ISOFeatureAssociation*

---

### Description

ISOFeatureAssociation

ISOFeatureAssociation

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOFeatureAssociation

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOFeatureType](#) ->  
ISOFeatureAssociation

### Public fields

roleName roleName [2..\*]: ISOAssociationRole

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

- [ISOFeatureAssociation\\$new\(\)](#)
- [ISOFeatureAssociation\\$addRoleName\(\)](#)
- [ISOFeatureAssociation\\$delRoleName\(\)](#)
- [ISOFeatureAssociation\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOFeatureAssociation$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `addRoleName()`: Adds role name

*Usage:*

`ISOFeatureAssociation$addRoleName(associationRole)`

*Arguments:*

`associationRole` object of class [ISOAssociationRole](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delRoleName()`: Deletes role name

*Usage:*

`ISOFeatureAssociation$delRoleName(associationRole)`

*Arguments:*

`associationRole` object of class [ISOAssociationRole](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

`ISOFeatureAssociation$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOFeatureAttribute    *ISOFeatureAttribute*

---

**Description**

ISOFeatureAttribute

ISOFeatureAttribute

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOFeatureAttribute

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractCarrierOfCharacteristics](#)  
 -> [geometa::ISOAbstractPropertyType](#) -> [geometa::ISOPropertyType](#) -> ISOFeatureAttribute

**Public fields**

code code [0..1]: character

valueMeasurementUnit valueMeasurementUnit [0..1]: [GMLUnitDefinition](#)

valueType valueType [0..1]: [ISOTypeName](#)

listedValue listedValue [0..\*]: [ISOListedValue](#)

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

- [ISOFeatureAttribute\\$new\(\)](#)
- [ISOFeatureAttribute\\$setCode\(\)](#)
- [ISOFeatureAttribute\\$setValueMeasurementUnit\(\)](#)
- [ISOFeatureAttribute\\$setValueType\(\)](#)
- [ISOFeatureAttribute\\$addListedValue\(\)](#)
- [ISOFeatureAttribute\\$delListedValue\(\)](#)
- [ISOFeatureAttribute\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

[ISOFeatureAttribute\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setCode()`: Set code

*Usage:*

```
ISOFeatureAttribute$setCode(code, locales = NULL)
```

*Arguments:*

`code` code

`locales` list of localized codes. Default is NULL

**Method** `setValueMeasurementUnit()`: Set value measurement unit

*Usage:*

```
ISOFeatureAttribute$setValueMeasurementUnit(uom)
```

*Arguments:*

`uom` uom, object of class [GMLUnitDefinition](#)

**Method** `setValueType()`: Set type name

*Usage:*

```
ISOFeatureAttribute$setValueType(typeName, locales = NULL)
```

*Arguments:*

`typeName` typeName

`locales` list of localized typeNames. Default is NULL

**Method** `addListedValue()`: Adds listed value

*Usage:*

```
ISOFeatureAttribute$addListedValue(value)
```

*Arguments:*

`value` value, object of class [ISOListedValue](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delListedValue()`: Deletes listed value

*Usage:*

```
ISOFeatureAttribute$delListedValue(value)
```

*Arguments:*

`value` value, object of class [ISOListedValue](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19110:2005 Methodology for Feature cataloguing

## Examples

```
md <- ISOFeatureAttribute$new()
md$setMemberName("name")
md$setDefinition("definition")
md$setCardinality(lower=1,upper=1)
md$setCode("code")

gml <- GMLBaseUnit$new(id = "ID")
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
gml$setUnitsSystem("somelink")
md$setValueMeasurementUnit(gml)

val1 <- ISOListedValue$new()
val1$setCode("code1")
val1$setLabel("label1")
val1$setDefinition("definition1")
md$addListedValue(val1)
val2 <- ISOListedValue$new()
val2$setCode("code2")
val2$setLabel("label2")
val2$setDefinition("definition2")
md$addListedValue(val2)
md$setValueType("typeName")
```

---

ISOFeatureCatalogue    *ISOFeatureCatalogue*

---

## Description

ISOFeatureCatalogue  
ISOFeatureCatalogue

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO FeatureCatalogue

**Super classes**

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractCatalogue`  
 -> `ISOFeatureCatalogue`

**Public fields**

`attrs` `attrs`  
`producer` `producer` [1..1]: `ISOResponsibleParty`  
`functionalLanguage` `functionalLanguage` [0..1]: character  
`featureType` `featureType` [1..\*]: `ISOFeatureType`  
`definitionSource` `definitionSource` [0..\*]: `ISODefinitionSource`

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

- `ISOFeatureCatalogue$new()`
- `ISOFeatureCatalogue$setProducer()`
- `ISOFeatureCatalogue$setFunctionalLanguage()`
- `ISOFeatureCatalogue$addFeatureType()`
- `ISOFeatureCatalogue$delFeatureType()`
- `ISOFeatureCatalogue$addDefinitionSource()`
- `ISOFeatureCatalogue$delDefinitionSource()`
- `ISOFeatureCatalogue$clone()`

**Method** `new()`: Initializes object

*Usage:*

`ISOFeatureCatalogue$new(xml = NULL, uuid = NULL)`

*Arguments:*

`xml` object of class `XMLInternalNode-class`

`uuid` `uuid`

**Method** `setProducer()`: Set producer

*Usage:*

`ISOFeatureCatalogue$setProducer(producer)`

*Arguments:*

`producer` object of class `ISOResponsibleParty`

**Method** `setFunctionalLanguage()`: Set functional language

*Usage:*

`ISOFeatureCatalogue$setFunctionalLanguage(functionalLanguage)`

*Arguments:*

`functionalLanguage` functional language



**Method** addFeatureType(): Adds feature type

*Usage:*

ISOFeatureCatalogue\$addFeatureType(featureType)

*Arguments:*

featureType object of class [ISOFeatureType](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delFeatureType(): Deletes feature type

*Usage:*

ISOFeatureCatalogue\$delFeatureType(featureType)

*Arguments:*

featureType object of class [ISOFeatureType](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addDefinitionSource(): Adds definition source

*Usage:*

ISOFeatureCatalogue\$addDefinitionSource(source)

*Arguments:*

source object of class [ISODefinitionSource](#) or [ISOCitation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delDefinitionSource(): Deletes definition source

*Usage:*

ISOFeatureCatalogue\$delDefinitionSource(source)

*Arguments:*

source object of class [ISODefinitionSource](#) or [ISOCitation](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOFeatureCatalogue\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19110:2005 Methodology for Feature cataloguing

**Examples**

```

fc <- ISOFeatureCatalogue$new(uuid = "my-fc-identifier")
fc$setName("name")
fc$addScope("scope1")
fc$addScope("scope2")
fc$addFieldOfApplication("field1")
fc$addFieldOfApplication("field2")
fc$setVersionNumber("1.0")
fc$setVersionDate(ISOdate(2015, 1, 1, 1))

producer <- ISOResponsibleParty$new()
producer$setIndividualName("someone")
fc$setProducer(producer)
fc$setFunctionalLanguage("eng")

cit <- ISOCitation$new()
cit$setTitle("some citation title")
fc$addDefinitionSource(cit)
#' #add featureType
ft <- ISOFeatureType$new()
ft$setType("typeName")
ft$setDefinition("definition")
ft$setCode("code")
ft$setIsAbstract(FALSE)
ft$addAlias("alias1")
ft$addAlias("alias2")

#add feature attributes
for(i in 1:3){
  #create attribute
  fat <- ISOFeatureAttribute$new()
  fat$setMemberName(sprintf("name %s",i))
  fat$setDefinition(sprintf("definition %s",i))
  fat$setCardinality(lower=1,upper=1)
  fat$setCode(sprintf("code %s",i))

  gml <- GMLBaseUnit$new(id = sprintf("ID%s",i))
  gml$setDescriptionReference("someref")
  gml$setIdentifier("identifier", "codespace")
  gml$addName("name1", "codespace")
  gml$addName("name2", "codespace")
  gml$setQuantityTypeReference("someref")
  gml$setCatalogSymbol("symbol")
  gml$setUnitsSystem("somelink")
  fat$setValueMeasurementUnit(gml)

  #add listed values
  val1 <- ISOListedValue$new()
  val1$setCode("code1")
  val1$setLabel("label1")
  val1$setDefinition("definition1")
  fat$addListedValue(val1)
}

```

```
val2 <- ISOListedValue$new()
val2$setCode("code2")
val2$setLabel("label2")
val2$setDefinition("definition2")
fat$addListedValue(val2)
fat$setValueType("typeName")

#add feature attribute as carrierOfCharacteristic
ft$addCharacteristic(fat)
}
#add featureType to catalogue
fc$addFeatureType(ft)

xml <- fc$encode()
```

---

ISOFeatureCatalogueDescription

*ISOFeatureCatalogueDescription*

---

## Description

ISOFeatureCatalogueDescription

ISOFeatureCatalogueDescription

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISOFeatureCatalogue

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOContentInformation](#)  
-> [ISOFeatureCatalogueDescription](#)

## Public fields

complianceCode complianceCode: logical

language language [0..\*]: character

includedWithDataset includedWithDataset: logical

featureTypes featureTypes [0..\*]: GenericName #TODO?

featureCatalogueCitation featureCatalogueCitation [1..\*]: ISOCitation

## Methods

### Public methods:

- [ISOFeatureCatalogueDescription\\$new\(\)](#)
- [ISOFeatureCatalogueDescription\\$setComplianceCode\(\)](#)
- [ISOFeatureCatalogueDescription\\$addLanguage\(\)](#)
- [ISOFeatureCatalogueDescription\\$delLanguage\(\)](#)
- [ISOFeatureCatalogueDescription\\$setIncludedWithDataset\(\)](#)
- [ISOFeatureCatalogueDescription\\$addFeatureCatalogueCitation\(\)](#)
- [ISOFeatureCatalogueDescription\\$delFeatureCatalogueCitation\(\)](#)
- [ISOFeatureCatalogueDescription\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOFeatureCatalogueDescription$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setComplianceCode()`: Set compliance code

*Usage:*

```
ISOFeatureCatalogueDescription$setComplianceCode(compliance)
```

*Arguments:*

compliance compliance, object of class [logical](#)

**Method** `addLanguage()`: Adds language

*Usage:*

```
ISOFeatureCatalogueDescription$addLanguage(lang)
```

*Arguments:*

lang lang

*Returns:* TRUE if added, FALSE otherwise

**Method** `delLanguage()`: Deletes language

*Usage:*

```
ISOFeatureCatalogueDescription$delLanguage(lang)
```

*Arguments:*

lang lang

*Returns:* TRUE if deleted, FALSE otherwise

**Method** `setIncludedWithDataset()`: Set included with dataset

*Usage:*

```
ISOFeatureCatalogueDescription$setIncludedWithDataset(include)
```

*Arguments:*

include include, object of class [logical](#)

**Method** addFeatureCatalogueCitation(): Adds feature catalogue citation

*Usage:*

```
ISOFeatureCatalogueDescription$addFeatureCatalogueCitation(  
  citation,  
  uuid = NULL  
)
```

*Arguments:*

citation, object of class [ISOCitation](#)  
uuid uuid

*Returns:* TRUE if added, FALSE otherwise

**Method** delFeatureCatalogueCitation(): Deletes feature catalogue citation

*Usage:*

```
ISOFeatureCatalogueDescription$delFeatureCatalogueCitation(  
  citation,  
  uuid = NULL  
)
```

*Arguments:*

citation, object of class [ISOCitation](#)  
uuid uuid

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOFeatureCatalogueDescription$new()  
md$setComplianceCode(FALSE)  
md$addLanguage("eng")  
md$setIncludedWithDataset(FALSE)  
  
cit = ISOCitation$new()
```

```

contact = ISOContact$new()
fcLink <- ISOOnlineResource$new()
fcLink$setLinkage("http://somelink/featurecatalogue")
contact$setOnlineResource(fcLink)
rp = ISOResponsibleParty$new()
rp$setContactInfo(contact)
cit$setCitedResponsibleParty(rp)
md$addFeatureCatalogueCitation(cit)

```

---

ISOFeatureOperation    *ISOFeatureOperation*

---

### Description

ISOFeatureOperation  
ISOFeatureOperation

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOFeatureOperation

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractCarrierOfCharacteristics](#)  
-> [geometa::ISOAbstractPropertyType](#) -> [geometa::ISOPropertyType](#) -> ISOFeatureOperation

### Public fields

signature signature: character  
formalDefinition formalDefinition [0..1]: character

### Methods

#### Public methods:

- [ISOFeatureOperation\\$new\(\)](#)
- [ISOFeatureOperation\\$setSignature\(\)](#)
- [ISOFeatureOperation\\$setFormalDefinition\(\)](#)
- [ISOFeatureOperation\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOFeatureOperation$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setSignature(): Set signature*Usage:*

```
ISOFeatureOperation$setSignature(signature, locales = NULL)
```

*Arguments:*

signature signature

locales list of localized signatures. Default is NULL

**Method** setFormalDefinition(): Set formal definition*Usage:*

```
ISOFeatureOperation$setFormalDefinition(formalDefinition, locales = NULL)
```

*Arguments:*

formalDefinition formal definition

locales list of localized definitions. Default is NULL

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

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

**Examples**

```
md <- ISOFeatureOperation$new()
md$setMemberName("name")
md$setDefinition("definition")
md$setCardinality(lower=1, upper=1)
md$setSignature("signature")
md$setFormalDefinition("def")
```

---

ISOFeatureType	<i>ISOFeatureType</i>
----------------	-----------------------

---

**Description**

ISOFeatureType

ISOFeatureType

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO FeatureType**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOFeatureType**Public fields**

typeName typeName [1..1]: ISOLocalName

definition definition [0..1]: character

code code [0..1]: character

isAbstract isAbstract [1..1]: logical

aliases aliases [0..\*]: ISOLocalName

inheritsFrom inheritsFrom [0..\*]: ISOInheritanceRelation

inheritsTo inheritsTo [0..\*]: ISOInheritanceRelation

featureCatalogue featureCatalogue: ISOFeatureCatalogue

constrainedBy constrainedBy [0..\*]: ISOConstraint

definitionReference definitionReference [0..\*]: ISODefinitionReference

carrierOfCharacteristics carrierOfCharacteristics [0..\*]: ISOCarrierOfCharacteristics

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

- [ISOFeatureType\\$new\(\)](#)
- [ISOFeatureType\\$setTypeName\(\)](#)
- [ISOFeatureType\\$setDefinition\(\)](#)
- [ISOFeatureType\\$setCode\(\)](#)
- [ISOFeatureType\\$setIsAbstract\(\)](#)
- [ISOFeatureType\\$addAlias\(\)](#)



- [ISOFeatureType\\$delAlias\(\)](#)
- [ISOFeatureType\\$addInheritsFrom\(\)](#)
- [ISOFeatureType\\$delInheritsFrom\(\)](#)
- [ISOFeatureType\\$addInheritsTo\(\)](#)
- [ISOFeatureType\\$delInheritsTo\(\)](#)
- [ISOFeatureType\\$setFeatureCatalogue\(\)](#)
- [ISOFeatureType\\$addConstraint\(\)](#)
- [ISOFeatureType\\$delConstraint\(\)](#)
- [ISOFeatureType\\$setDefinitionReference\(\)](#)
- [ISOFeatureType\\$addCharacteristic\(\)](#)
- [ISOFeatureType\\$delCharacteristic\(\)](#)
- [ISOFeatureType\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOFeatureType$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setType_name()`: Set type name

*Usage:*

```
ISOFeatureType$setType_name(type_name)
```

*Arguments:*

type\_name type name, object of class [ISOLocalName](#) or [character](#)

**Method** `setDefinition()`: Set definition

*Usage:*

```
ISOFeatureType$setDefinition(definition, locales = NULL)
```

*Arguments:*

definition definition

locales list of localized definitions. Default is NULL

**Method** `setCode()`: Set code

*Usage:*

```
ISOFeatureType$setCode(code, locales = NULL)
```

*Arguments:*

code definition

locales list of localized codes. Default is NULL

**Method** `setIsAbstract()`: Set whether feature type is abstract

*Usage:*

```
ISOFeatureType$setIsAbstract(isAbstract)
```

*Arguments:*

isAbstract object of class [logical](#)

**Method** addAlias(): Adds alias

*Usage:*

ISOFeatureType\$addAlias(alias)

*Arguments:*

alias object of class [ISOLocalName](#) or [character](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delAlias(): Deletes alias

*Usage:*

ISOFeatureType\$delAlias(alias)

*Arguments:*

alias object of class [ISOLocalName](#) or [character](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addInheritsFrom(): Adds 'inheritsFrom' relation

*Usage:*

ISOFeatureType\$addInheritsFrom(rel)

*Arguments:*

rel rel, object of class [ISOInheritanceRelation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delInheritsFrom(): Deletes 'inheritsFrom' relation

*Usage:*

ISOFeatureType\$delInheritsFrom(rel)

*Arguments:*

rel rel, object of class [ISOInheritanceRelation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addInheritsTo(): Adds 'inheritsTo' relation

*Usage:*

ISOFeatureType\$addInheritsTo(rel)

*Arguments:*

rel rel, object of class [ISOInheritanceRelation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delInheritsTo(): Deletes 'inheritsTo' relation

*Usage:*

ISOFeatureType\$delInheritsTo(rel)

*Arguments:*

rel rel, object of class [ISOInheritanceRelation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setFeatureCatalogue(): Set feature catalogue

*Usage:*

ISOFeatureType\$setFeatureCatalogue(fc)

*Arguments:*

fc object of class [ISOFeatureCatalogue](#)

**Method** addConstraint(): Adds constraint

*Usage:*

ISOFeatureType\$addConstraint(constraint)

*Arguments:*

constraint constraint, object of class [ISOConstraint](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delConstraint(): Deletes constraint

*Usage:*

ISOFeatureType\$delConstraint(constraint)

*Arguments:*

constraint constraint, object of class [ISOConstraint](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setDefinitionReference(): Set definition reference

*Usage:*

ISOFeatureType\$setDefinitionReference(definitionReference)

*Arguments:*

definitionReference object of class [ISODefinitionReference](#)

**Method** addCharacteristic(): Adds characteristic

*Usage:*

ISOFeatureType\$addCharacteristic(characteristic)

*Arguments:*

characteristic characteristic, object inheriting class [ISOAbstractCarrierOfCharacteristics](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delCharacteristic(): Deletes characteristic

*Usage:*

ISOFeatureType\$delCharacteristic(characteristic)

*Arguments:*

characteristic characteristic, object inheriting class [ISOAbstractCarrierOfCharacteristics](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

```
ISOFeatureType$new(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19110:2005 Methodology for Feature cataloguing

### Examples

```
#featuretype
md <- ISOFeatureType$new()
md$setType("typeName")
md$setDefinition("definition")
md$setCode("code")
md$setIsAbstract(FALSE)
md$addAlias("alias1")
md$addAlias("alias2")

#add feature attributes
for(i in 1:3){
  #create attribute
  fat <- ISOFeatureAttribute$new()
  fat$setMemberName(sprintf("name %s",i))
  fat$setDefinition(sprintf("definition %s",i))
  fat$setCardinality(lower=1,upper=1)
  fat$setCode(sprintf("code %s",i))

  #add measurement unit
  gml <- GMLBaseUnit$new(id = "ID")
  gml$setDescriptionReference("someref")
  gml$setIdentifier("identifier", "codespace")
  gml$addName("name1", "codespace")
  gml$addName("name2", "codespace")
  gml$setQuantityTypeReference("someref")
  gml$setCatalogSymbol("symbol")
  gml$setUnitsSystem("somelink")
  fat$setValueMeasurementUnit(gml)

  #add listed values
  val1 <- ISOListedValue$new()
  val1$setCode("code1")
  val1$setLabel("label1")
}
```

```

val1$setDefinition("definition1")
fat$addListedValue(val1)
val2 <- ISOListedValue$new()
val2$setCode("code2")
val2$setLabel("label2")
val2$setDefinition("definition2")
fat$addListedValue(val2)
fat$setValueType("typeName")

#add feature attribute as carrierOfCharacteristic
md$addCharacteristic(fat)
}
xml <- md$encode()

```

---

ISOFileName

*ISOFileName*


---

### Description

ISOFileName

ISOFileName

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO FileName

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOFileName

### Public fields

attrs attrs

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOFileName$new(xml = NULL, file = NULL, name = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 file file  
 name name

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO/TS 19139:2007 Geographic information – XML

**Examples**

```
md <- ISOFileName$new(file = "someuri", name = "filename")
xml <- md$encode()
```

---

ISOFormat

*ISOFormat*

---

**Description**

ISOFormat

ISOFormat

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOFormat

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOFormat

**Public fields**

name name : CharacterString  
version version : CharacterString  
amendmentNumber amendmentNumber [0..1] : CharacterString  
specification specification [0..1] : CharacterString  
fileDecompressionTechnique fileDecompressionTechnique [0..1] : CharacterString  
FormatDistributor FormatDistributor [0..\*]: ISODistributor

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

- [ISOFormat\\$new\(\)](#)
- [ISOFormat\\$setName\(\)](#)
- [ISOFormat\\$setVersion\(\)](#)
- [ISOFormat\\$setAmendmentNumber\(\)](#)
- [ISOFormat\\$setSpecification\(\)](#)
- [ISOFormat\\$setFileDecompressionTechnique\(\)](#)
- [ISOFormat\\$addDistributor\(\)](#)
- [ISOFormat\\$delDistributor\(\)](#)
- [ISOFormat\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

ISOFormat\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setName(): Set name

*Usage:*

ISOFormat\$setName(name, locales = NULL)

*Arguments:*

name name

locales list of localized names. Default is NULL

**Method** setVersion(): Set version

*Usage:*

ISOFormat\$setVersion(version)

*Arguments:*

version version

**Method** setAmendmentNumber(): Set amendment number

*Usage:*

ISOFormat\$setAmendmentNumber(amendmentNumber)

*Arguments:*

amendmentNumber amendment number

**Method** setSpecification(): Set specification

*Usage:*

ISOFormat\$setSpecification(specification, locales = NULL)

*Arguments:*

specification specification

locales list of localized specifications. Default is NULL

**Method** setFileDecompressionTechnique(): Set file decompression technique

*Usage:*

ISOFormat\$setFileDecompressionTechnique(technique)

*Arguments:*

technique technique

**Method** addDistributor(): Adds distributor

*Usage:*

ISOFormat\$addDistributor(distributor)

*Arguments:*

distributor object of class [ISODistributor](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delDistributor(): Deletes distributor

*Usage:*

ISOFormat\$delDistributor(distributor)

*Arguments:*

distributor object of class [ISODistributor](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOFormat\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata



**Examples**

```
md <- ISOFormat$new()
md$setName("name")
md$setVersion("1.0")
md$setAmendmentNumber("2")
md$setSpecification("specification")
```

---

ISOFormatConsistency    *ISOFormatConsistency*

---

**Description**

ISOFormatConsistency  
ISOFormatConsistency

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOFormatConsistency

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [geometa::ISOAbstractLogicalConsistency](#) -> ISOFormatConsistency

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

- [ISOFormatConsistency\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```

#encoding
dq <- ISOFormatConsistency$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()

```

---

ISOFreeText

*ISOFreeText*


---

**Description**

ISOFreeText

ISOFreeText

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO FreeText**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOFreeText**Public fields**

textGroup textGroup [1..\*]: ISOLocalisedCharacterString

## Methods

### Public methods:

- [ISOFreeText\\$new\(\)](#)
- [ISOFreeText\\$addTextGroup\(\)](#)
- [ISOFreeText\\$delTextGroup\(\)](#)
- [ISOFreeText\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOFreeText$new(xml = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `addTextGroup()`: Adds text group

*Usage:*

```
ISOFreeText$addTextGroup(textGroup)
```

*Arguments:*

`textGroup` text group, object of class [ISOLocalisedCharacterString](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delTextGroup()`: Deletes text group

*Usage:*

```
ISOFreeText$delTextGroup(textGroup)
```

*Arguments:*

`textGroup` text group, object of class [ISOLocalisedCharacterString](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

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

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
ft <- ISOFreeText$new()
```

---

ISOGeographicBoundingBox

*ISOGeographicBoundingBox*

---

## Description

ISOGeographicBoundingBox

ISOGeographicBoundingBox

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO GeographicBoundingBox

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOGeographicExtent](#)  
-> [ISOGeographicBoundingBox](#)

## Public fields

westBoundLongitude westBoundLongitude

eastBoundLongitude eastBoundLongitude

southBoundLatitude southBoundLatitude

northBoundLatitude northBoundLatitude

## Methods

### Public methods:

- [ISOGeographicBoundingBox\\$new\(\)](#)
- [ISOGeographicBoundingBox\\$setWestBoundLongitude\(\)](#)
- [ISOGeographicBoundingBox\\$setEastBoundLongitude\(\)](#)
- [ISOGeographicBoundingBox\\$setSouthBoundLatitude\(\)](#)
- [ISOGeographicBoundingBox\\$setNorthBoundLatitude\(\)](#)
- [ISOGeographicBoundingBox\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOGeographicBoundingBox$new(  
  xml = NULL,  
  minx = NULL,  
  miny = NULL,  
  maxx = NULL,  
  maxy = NULL,  
  bbox = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
minx minx object of class [numeric](#)  
miny miny object of class [numeric](#)  
maxx maxx object of class [numeric](#)  
maxy maxy object of class [numeric](#)  
bbox bbox object of class [matrix](#)

**Method** `setWestBoundLongitude()`: Set west bound longitude

*Usage:*

```
ISOGeographicBoundingBox$setWestBoundLongitude(minx)
```

*Arguments:*

minx minx object of class [numeric](#)

**Method** `setEastBoundLongitude()`: Set east bound longitude

*Usage:*

```
ISOGeographicBoundingBox$setEastBoundLongitude(maxx)
```

*Arguments:*

maxx maxx object of class [numeric](#)

**Method** `setSouthBoundLatitude()`: Set south bound latitude

*Usage:*

```
ISOGeographicBoundingBox$setSouthBoundLatitude(miny)
```

*Arguments:*

miny miny object of class [numeric](#)

**Method** `setNorthBoundLatitude()`: Set north bound latitude

*Usage:*

```
ISOGeographicBoundingBox$setNorthBoundLatitude(maxy)
```

*Arguments:*

maxy maxy object of class [numeric](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
xml <- md$encode()
```

---

ISOGeographicDescription

*ISOGeographicDescription*

---

**Description**

ISOGeographicDescription

ISOGeographicDescription

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO GeographicDescription

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOGeographicExtent
-> ISOGeographicDescription
```

**Public fields**

geographicIdentifier geographicIdentifier [1..1]: character

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

- [ISOGeographicDescription\\$new\(\)](#)
- [ISOGeographicDescription\\$setGeographicIdentifier\(\)](#)
- [ISOGeographicDescription\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOGeographicDescription$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setGeographicIdentifier(): Set geographic identifier

*Usage:*

```
ISOGeographicDescription$setGeographicIdentifier(geographicIdentifier)
```

*Arguments:*

geographicIdentifier geographic identifier, object of class [ISOMetaIdentifier](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOGeographicDescription$new()
md$setGeographicIdentifier(ISOMetaIdentifier$new(code = "identifier"))
xml <- md$encode()
```

---

ISOGeographicExtent    *ISOGeographicExtent*

---

**Description**

ISOGeographicExtent

ISOGeographicExtent

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO abstract geographicExtent

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOGeographicExtent

**Public fields**

extentTypeCode extentTypeCode [0..1]: ISOBaseBoolean default "true"

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

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

**Method** `new()`: Initializes object

*Usage:*

`ISOGeographicExtent$new(xml = NULL, defaults = list())`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults defaults list

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

*Usage:*

`ISOGeographicExtent$clone(deep = FALSE)`

*Arguments:*

deep Whether to make a deep clone.

**Note**

abstract class

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata



---

ISOGeometricObjects    *ISOGeometricObjects*

---

**Description**

ISOGeometricObjects

ISOGeometricObjects

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO GeometricObjects

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOGeometricObjects

**Public fields**

geometricObjectType geometricObjectType

geometricObjectCount geometricObjectCount

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

- [ISOGeometricObjects\\$new\(\)](#)
- [ISOGeometricObjects\\$setGeometricObjectType\(\)](#)
- [ISOGeometricObjects\\$setGeometricObjectCount\(\)](#)
- [ISOGeometricObjects\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOGeometricObjects\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setGeometricObjectType\(\)](#): Set geometric object type

*Usage:*

[ISOGeometricObjects\\$setGeometricObjectType\(geometricObjectType\)](#)

*Arguments:*

geometricObjectType object of class [ISOGeometricObjectType](#) or any [character](#) among values returned by [ISOGeometricObjectType\\$values\(\)](#)

**Method** setGeometricObjectCount(): Set geometric object count

*Usage:*

```
ISOGeometricObjects$setGeometricObjectCount(geometricObjectCount)
```

*Arguments:*

geometricObjectCount object of class [integer](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOGeometricObjects$new()
md$setGeometricObjectType("surface")
md$setGeometricObjectCount(5L)
xml <- md$encode()
```

---

ISOGeometricObjectType

*ISOGeometricObjectType*

---

### Description

ISOGeometricObjectType

ISOGeometricObjectType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO GeometricObjectType

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue  
-> ISOGeometricObjectType
```

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

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

**Method new():** Initializes object

*Usage:*

```
ISOGeometricObjectType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values  
values <- ISOGeometricObjectType$values(labels = TRUE)  
  
#point type  
pt <- ISOGeometricObjectType$new(value = "point")
```

---

ISOGeorectified	<i>ISOGeorectified</i>
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---

**Description**

ISOGeorectified

ISOGeorectified

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO Georectified**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOSpatialRepresentation
-> geometa::ISOGridSpatialRepresentation -> ISOGeorectified

```

**Public fields**

checkPointAvailability checkPointAvailability [1..1]

checkPointDescription checkPointDescription [0..1]

cornerPoints cornerPoints [0..\*]

centerPoint centerPoint [0..1]

pointInPixel pointInPixel [1..1]

transformationDimensionDescription transformationDimensionDescription [0..1]

transformationDimensionMapping transformationDimensionMapping [0..2]

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

- [ISOGeorectified\\$new\(\)](#)
- [ISOGeorectified\\$setCheckPointAvailability\(\)](#)
- [ISOGeorectified\\$setCheckPointDescription\(\)](#)
- [ISOGeorectified\\$addCornerPoint\(\)](#)
- [ISOGeorectified\\$delCornerPoint\(\)](#)
- [ISOGeorectified\\$setCenterPoint\(\)](#)
- [ISOGeorectified\\$setPixelOrientation\(\)](#)
- [ISOGeorectified\\$setTransformationDimensionDescription\(\)](#)
- [ISOGeorectified\\$addTransformationDimensionMapping\(\)](#)
- [ISOGeorectified\\$delTransformationDimensionMapping\(\)](#)

- [ISOGeorectified\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISOGeorectified$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setCheckPointAvailability():** Set check point availability

*Usage:*

```
ISOGeorectified$setCheckPointAvailability(availability)
```

*Arguments:*

availability object of class [logical](#)

**Method setCheckPointDescription():** Set check point description

*Usage:*

```
ISOGeorectified$setCheckPointDescription(description, locales = NULL)
```

*Arguments:*

description object of class [character](#)

locales list of localized descriptions. Default is NULL

**Method addCornerPoint():** Adds corner point

*Usage:*

```
ISOGeorectified$addCornerPoint(sfg = NULL, m = NULL)
```

*Arguments:*

sfg simple feature object from **sf**

m simple feature object of class [matrix](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delCornerPoint():** Deletes corner point

*Usage:*

```
ISOGeorectified$delCornerPoint(sfg = NULL, m = NULL)
```

*Arguments:*

sfg simple feature object from **sf**

m simple feature object of class [matrix](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setCenterPoint():** Sets center point

*Usage:*

```
ISOGeorectified$setCenterPoint(sfg = NULL, m = NULL)
```

*Arguments:*

sfg simple feature object from **sf**

m simple feature object of class [matrix](#)

**Method** `setPixelOrientation()`: Set pixel orientation

*Usage:*

```
ISOGeorectified$setPixelOrientation(pixelOrientation)
```

*Arguments:*

pixelOrientation object of class [ISOPixelOrientation](#) or [character](#) among values among those returned by [ISOPixelOrientation\\$values\(\)](#)

**Method** `setTransformationDimensionDescription()`: Set transformation dimension description

*Usage:*

```
ISOGeorectified$setTransformationDimensionDescription(
  description,
  locales = NULL
)
```

*Arguments:*

description description

locales list of localized descriptions. Default is NULL

**Method** `addTransformationDimensionMapping()`: Adds transformation dimension mapping

*Usage:*

```
ISOGeorectified$addTransformationDimensionMapping(mapping)
```

*Arguments:*

mapping mapping

*Returns:* TRUE if added, FALSE otherwise

**Method** `delTransformationDimensionMapping()`: Deletes transformation dimension mapping

*Usage:*

```
ISOGeorectified$delTransformationDimensionMapping(mapping)
```

*Arguments:*

mapping mapping

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOGeoreferenceable    *ISOGeoreferenceable*

---

### Description

ISOGeoreferenceable  
ISOGeoreferenceable

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Georeferenceable

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOSpatialRepresentation](#)  
-> [geometa::ISOGridSpatialRepresentation](#) -> ISOGeoreferenceable

### Public fields

controlPointAvailability controlPointAvailability: logical  
orientationParameterAvailability orientationParameterAvailability: logical  
orientationParameterDescription orientationParameterDescription [0..1]: character  
georeferencedParameters georeferencedParameters: ISORecord  
parameterCitation parameterCitation [0..\*]: ISOCitation

### Methods

#### Public methods:

- [ISOGeoreferenceable\\$new\(\)](#)
- [ISOGeoreferenceable\\$setControlPointAvailability\(\)](#)
- [ISOGeoreferenceable\\$setOrientationParameterAvailability\(\)](#)
- [ISOGeoreferenceable\\$setOrientationParameterDescription\(\)](#)
- [ISOGeoreferenceable\\$setGeoreferencedParameters\(\)](#)
- [ISOGeoreferenceable\\$addParameterCitation\(\)](#)
- [ISOGeoreferenceable\\$delParameterCitation\(\)](#)
- [ISOGeoreferenceable\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOGeoreferenceable\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setControlPointAvailability(): Set control point availability

*Usage:*

```
ISOGeoreferenceable$setControlPointAvailability(availability)
```

*Arguments:*

availability object of class [logical](#)

**Method** setOrientationParameterAvailability(): Set orientation parameter availability

*Usage:*

```
ISOGeoreferenceable$setOrientationParameterAvailability(availability)
```

*Arguments:*

availability object of class [logical](#)

**Method** setOrientationParameterDescription(): Set orientation parameter description

*Usage:*

```
ISOGeoreferenceable$setOrientationParameterDescription(
  description,
  locales = NULL
)
```

*Arguments:*

description description

locales list of localized descriptions. Default is NULL

**Method** setGeoreferencedParameters(): Set georeferenced parameters

*Usage:*

```
ISOGeoreferenceable$setGeoreferencedParameters(record)
```

*Arguments:*

record object of class [ISORecord](#)

**Method** addParameterCitation(): Adds parameter citation

*Usage:*

```
ISOGeoreferenceable$addParameterCitation(citation)
```

*Arguments:*

citation object of class [ISOCitation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delParameterCitation(): Deletes parameter citation

*Usage:*

```
ISOGeoreferenceable$delParameterCitation(citation)
```

*Arguments:*

citation object of class [ISOCitation](#)



*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOGeoreferenceable$new()

#inherited methods from ISOGridSpatialRepresentation
md$setNumberOfDimensions(1)
dim1 <- ISODimension$new()
dim1$setName("row")
dim1$setSize(100)
dim1$setResolution(ISOMeasure$new(value=1,uom="m"))
md$addDimension(dim1)
md$setCellGeometry("area")

#parameters
md$setControlPointAvailability(TRUE)
md$setOrientationParameterAvailability(TRUE)
md$setOrientationParameterDescription("description")
md$setGeoreferencedParameters("record")
ct <- ISOCitation$new()
ct$setTitle("citation")
md$addParameterCitation(ct)

xml <- md$encode()
```

---

ISOGriddedDataPositionalAccuracy

*ISOGriddedDataPositionalAccuracy*

---

### Description

ISOGriddedDataPositionalAccuracy

ISOGriddedDataPositionalAccuracy

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an ISOGriddedDataPositionalAccuracy

**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISODataQualityAbstractElement  
-> geometa::ISOAbstractPositionalAccuracy -> ISOGriddedDataPositionalAccuracy

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

- ISOGriddedDataPositionalAccuracy\$clone()

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#encoding
dq <- ISOGriddedDataPositionalAccuracy$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
```

```
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```

---

ISOGridSpatialRepresentation

*ISOGridSpatialRepresentation*

---

### Description

ISOGridSpatialRepresentation

ISOGridSpatialRepresentation

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO GridSpatialRepresentation

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOSpatialRepresentation](#)  
-> [ISOGridSpatialRepresentation](#)

### Public fields

numberOfDimensions numberOfDimensions [1..1]: integer

axisDimensionProperties axisDimensionProperties [1..\*]: ISODimension

cellGeometry cellGeometry [1..1]: ISOCellGeometry

transformationParameterAvailability transformationParameterAvailability : logical

### Methods

#### Public methods:

- [ISOGridSpatialRepresentation\\$new\(\)](#)
- [ISOGridSpatialRepresentation\\$setNumberOfDimensions\(\)](#)
- [ISOGridSpatialRepresentation\\$addDimension\(\)](#)
- [ISOGridSpatialRepresentation\\$delDimension\(\)](#)
- [ISOGridSpatialRepresentation\\$setCellGeometry\(\)](#)

- [ISOGridSpatialRepresentation\\$setTransformationParameterAvailability\(\)](#)
- [ISOGridSpatialRepresentation\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISOGridSpatialRepresentation$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setNumberOfDimensions():** Set number of dimensions

*Usage:*

```
ISOGridSpatialRepresentation$setNumberOfDimensions(numberOfDimensions)
```

*Arguments:*

numberOfDimensions object of class [integer](#)

**Method addDimension():** Adds dimension

*Usage:*

```
ISOGridSpatialRepresentation$addDimension(dimension)
```

*Arguments:*

dimension object of class [ISODimension](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delDimension():** Deletes dimension

*Usage:*

```
ISOGridSpatialRepresentation$delDimension(dimension)
```

*Arguments:*

dimension object of class [ISODimension](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setCellGeometry():** Set cell geometry

*Usage:*

```
ISOGridSpatialRepresentation$setCellGeometry(cellGeometry)
```

*Arguments:*

cellGeometry object of class [ISOCellGeometry](#) or any [character](#) among values returned by [ISOCellGeometry\\$values\(\)](#)

**Method setTransformationParameterAvailability():** Set transformation parameter availability

*Usage:*

```
ISOGridSpatialRepresentation$setTransformationParameterAvailability(  
  availability  
)
```

*Arguments:*

availability object of class [logical](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOGridSpatialRepresentation$new()
md$setNumberOfDimensions(1)
dim1 <- ISODimension$new()
dim1$setName("row")
dim1$setSize(100)
dim1$setResolution(ISOMeasure$new(value=1,uom="m"))
md$addDimension(dim1)
md$setCellGeometry("area")
xml <- md$encode()
```

---

ISOHierarchyLevel	<i>ISOHierarchyLevel</i>
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---

### Description

ISOHierarchyLevel

ISOHierarchyLevel

### Format

[R6Class](#) object

### Value

Object of [R6Class](#) for modelling an ISO HierarchyLevel

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOHierarchyLevel

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

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

**Method new():** Initializes object

*Usage:*

```
ISOHierarchyLevel$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOHierarchyLevel$values(labels = TRUE)

#dataset scope
ds <- ISOHierarchyLevel$new(value = "dataset")
```

---

ISOIdentification

*ISOIdentification*

---

**Description**

ISOIdentification

ISOIdentification

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an ISO Identification

**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOIdentification

**Public fields**

citation citation: ISOCitation  
abstract abstract: character  
purpose purpose [0..1]: character  
credit credit [0..\*]: character  
status status [0..\*]: ISOStatus  
pointOfContact pointOfContact [0..\*]: ISOResponsibleParty  
resourceMaintenance resourceMaintenance [0..\*]: ISOMaintenanceInformation  
graphicOverview graphicOverview [0..\*]: ISOBrowseGraphic  
resourceFormat resourceFormat [0..\*]: ISOFormat  
descriptiveKeywords descriptiveKeywords [0..\*]: ISOKeywords  
resourceConstraints resourceConstraints [0..\*]: ISOLegalConstraints  
resourceSpecificUsage resourceSpecificUsage [0..\*]: MD\_Usage (ISOUsage - to implement)  
aggregationInfo aggregationInfo [0..\*]: ISOAggregateInformation

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

- ISOIdentification\$new()
- ISOIdentification\$setCitation()
- ISOIdentification\$setAbstract()
- ISOIdentification\$setPurpose()
- ISOIdentification\$addCredit()
- ISOIdentification\$delCredit()
- ISOIdentification\$addStatus()
- ISOIdentification\$delStatus()
- ISOIdentification\$addPointOfContact()
- ISOIdentification\$delPointOfContact()
- ISOIdentification\$addResourceMaintenance()
- ISOIdentification\$setResourceMaintenance()
- ISOIdentification\$delResourceMaintenance()

- `ISOIdentification$addGraphicOverview()`
- `ISOIdentification$setGraphicOverview()`
- `ISOIdentification$delGraphicOverview()`
- `ISOIdentification$addFormat()`
- `ISOIdentification$delFormat()`
- `ISOIdentification$addKeywords()`
- `ISOIdentification$setKeywords()`
- `ISOIdentification$delKeywords()`
- `ISOIdentification$addResourceConstraints()`
- `ISOIdentification$setResourceConstraints()`
- `ISOIdentification$delResourceConstraints()`
- `ISOIdentification$addAggregateInformation()`
- `ISOIdentification$delAggregateInformation()`
- `ISOIdentification$clone()`

**Method** `new()`: Initializes object

*Usage:*

`ISOIdentification$new(xml = NULL, defaults = list())`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`defaults` defaults list

**Method** `setCitation()`: Set citation

*Usage:*

`ISOIdentification$setCitation(citation)`

*Arguments:*

`citation` object of class [ISOCitation](#)

**Method** `setAbstract()`: Set abstract

*Usage:*

`ISOIdentification$setAbstract(abstract, locales = NULL)`

*Arguments:*

`abstract` abstract

`locales` list of localized abstracts. Default is NULL

**Method** `setPurpose()`: Set purpose

*Usage:*

`ISOIdentification$setPurpose(purpose, locales = NULL)`

*Arguments:*

`purpose` purpose

`locales` list of localized texts. Default is NULL

**Method** `addCredit()`: Adds credit



*Usage:*

```
ISOIdentification$addCredit(credit, locales = NULL)
```

*Arguments:*

credit credit

locales list of localized texts. Default is NULL

*Returns:* TRUE if added, FALSE otherwise

**Method delCredit():** Deletes credit

*Usage:*

```
ISOIdentification$delCredit(credit, locales = NULL)
```

*Arguments:*

credit credit

locales list of localized texts. Default is NULL

*Returns:* TRUE if deleted, FALSE otherwise

**Method addStatus():** Adds status

*Usage:*

```
ISOIdentification$addStatus(status)
```

*Arguments:*

status object of class [ISOStatus](#) or any [character](#) among values returned by `ISOStatus$values()`

*Returns:* TRUE if added, FALSE otherwise

**Method delStatus():** Deletes status

*Usage:*

```
ISOIdentification$delStatus(status)
```

*Arguments:*

status object of class [ISOStatus](#) or any [character](#) among values returned by `ISOStatus$values()`

*Returns:* TRUE if deleted, FALSE otherwise

**Method addPointOfContact():** Adds point of contact

*Usage:*

```
ISOIdentification$addPointOfContact(pointOfContact)
```

*Arguments:*

pointOfContact object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delPointOfContact():** Deletes point of contact

*Usage:*

```
ISOIdentification$delPointOfContact(pointOfContact)
```

*Arguments:*

pointOfContact object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addResourceMaintenance(): Adds resource maintenance

*Usage:*

ISOIdentification\$addResourceMaintenance(resourceMaintenance)

*Arguments:*

resourceMaintenance object of class [ISOMaintenanceInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setResourceMaintenance(): Set resource maintenance

*Usage:*

ISOIdentification\$setResourceMaintenance(resourceMaintenance)

*Arguments:*

resourceMaintenance object of class [ISOMaintenanceInformation](#)

*Returns:* TRUE if set, FALSE otherwise

**Method** delResourceMaintenance(): Deletes resource maintenance

*Usage:*

ISOIdentification\$delResourceMaintenance(resourceMaintenance)

*Arguments:*

resourceMaintenance object of class [ISOMaintenanceInformation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addGraphicOverview(): Adds graphic overview

*Usage:*

ISOIdentification\$addGraphicOverview(graphicOverview)

*Arguments:*

graphicOverview object of class [ISOBrowseGraphic](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setGraphicOverview(): Sets graphic overview

*Usage:*

ISOIdentification\$setGraphicOverview(graphicOverview)

*Arguments:*

graphicOverview object of class [ISOBrowseGraphic](#)

*Returns:* TRUE if set, FALSE otherwise

**Method** delGraphicOverview(): Deletes graphic overview

*Usage:*

ISOIdentification\$delGraphicOverview(graphicOverview)

*Arguments:*

graphicOverview object of class [ISOBrowseGraphic](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addFormat(): Adds format

*Usage:*

ISOIdentification\$addFormat(format)

*Arguments:*

format object of class [ISOFormat](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delFormat(): Deletes format

*Usage:*

ISOIdentification\$delFormat(format)

*Arguments:*

format object of class [ISOFormat](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addKeywords(): Adds keywords

*Usage:*

ISOIdentification\$addKeywords(keywords)

*Arguments:*

keywords object of class [ISOKeywords](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setKeywords(): Set keywords

*Usage:*

ISOIdentification\$setKeywords(keywords)

*Arguments:*

keywords object of class [ISOKeywords](#)

*Returns:* TRUE if set, FALSE otherwise

**Method** delKeywords(): Deletes keywords

*Usage:*

ISOIdentification\$delKeywords(keywords)

*Arguments:*

keywords object of class [ISOKeywords](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addResourceConstraints(): Adds resource constraints

*Usage:*

ISOIdentification\$addResourceConstraints(resourceConstraints)

*Arguments:*

resourceConstraints object of class [ISOConstraints](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setResourceConstraints(): Sets resource constraints

*Usage:*

ISOIdentification\$setResourceConstraints(resourceConstraints)

*Arguments:*

resourceConstraints object of class [ISOConstraints](#)

*Returns:* TRUE if set, FALSE otherwise

**Method** delResourceConstraints(): Deletes resource constraints

*Usage:*

ISOIdentification\$delResourceConstraints(resourceConstraints)

*Arguments:*

resourceConstraints object of class [ISOConstraints](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addAggregateInformation(): Adds aggregate information

*Usage:*

ISOIdentification\$addAggregateInformation(aggregateInfo)

*Arguments:*

aggregateInfo object of class [ISOAggregateInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delAggregateInformation(): Deletes aggregate information

*Usage:*

ISOIdentification\$delAggregateInformation(aggregateInfo)

*Arguments:*

aggregateInfo object of class [ISOAggregateInformation](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOIdentification\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOIdentifier

*ISOIdentifier*

---

### Description

ISOIdentifier

ISOIdentifier

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Identifier

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOIdentifier

### Public fields

authority authority [0..1]: ISOCitation

code code[1..1]: character

### Methods

#### Public methods:

- [ISOIdentifier\\$new\(\)](#)
- [ISOIdentifier\\$setAuthority\(\)](#)
- [ISOIdentifier\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOIdentifier\\$new](#)(xml = NULL, code = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

code code

**Method** [setAuthority\(\)](#): Set authority

*Usage:*

[ISOIdentifier\\$setAuthority](#)(authority)

*Arguments:*

authority object of class [ISOCitation](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Note

Abstract ISO class

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOImageDescription    *ISOImageDescription*

---

### Description

ISOImageDescription

ISOImageDescription

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOImageDescription

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOContentInformation  
-> geometa::ISOCoverageDescription -> ISOImageDescription
```

**Public fields**

illuminationElevationAngle illuminationElevationAngle [0..1]  
illuminationAzimuthAngle illuminationAzimuthAngle [0..1]  
imagingCondition imagingCondition [0..1]  
imageQualityCode imageQualityCode [0..1]  
cloudCoverPercentage cloudCoverPercentage [0..1]  
processingLevelCode processingLevelCode [0..1]  
compressionGenerationQuantity compressionGenerationQuantity [0..1]  
triangulationIndicator triangulationIndicator [0..1]  
radiometricCalibrationDataAvailability radiometricCalibrationDataAvailability [0..1]  
cameraCalibrationInformationAvailability cameraCalibrationInformationAvailability [0..1]  
filmDistortionInformationAvailability filmDistortionInformationAvailability [0..1]  
lensDistortionInformationAvailability lensDistortionInformationAvailability [0..1]

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

- [ISOImageDescription\\$new\(\)](#)
- [ISOImageDescription\\$setIlluminationElevationAngle\(\)](#)
- [ISOImageDescription\\$setIlluminationAzimuthAngle\(\)](#)
- [ISOImageDescription\\$setImagingCondition\(\)](#)
- [ISOImageDescription\\$setImageQualityCode\(\)](#)
- [ISOImageDescription\\$setCloudCoverPercentage\(\)](#)
- [ISOImageDescription\\$setProcessingLevelCode\(\)](#)
- [ISOImageDescription\\$setCompressionGenerationQuantity\(\)](#)
- [ISOImageDescription\\$setTriangulationIndicator\(\)](#)
- [ISOImageDescription\\$setRadiometricCalibrationDataAvailability\(\)](#)
- [ISOImageDescription\\$setCameraCalibrationInformationAvailability\(\)](#)
- [ISOImageDescription\\$setFilmDistortionInformationAvailability\(\)](#)
- [ISOImageDescription\\$setLensDistortionInformationAvailability\(\)](#)
- [ISOImageDescription\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOImageDescription$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setIlluminationElevationAngle\(\)](#): Set illumination elevation angle

*Usage:*

```
ISOImageDescription$setIlluminationElevationAngle(illuminationElevationAngle)
```

*Arguments:*

illuminationElevationAngle object of class [numeric](#)

**Method** setIlluminationAzimuthAngle(): Set illumination azimuth angle

*Usage:*

ISOImageDescription\$setIlluminationAzimuthAngle(illuminationAzimuthAngle)

*Arguments:*

illuminationAzimuthAngle object of class [numeric](#)

**Method** setImagingCondition(): Set imaging condition

*Usage:*

ISOImageDescription\$setImagingCondition(imagingCondition)

*Arguments:*

imagingCondition object of class [ISOImagingCondition](#) or [character](#) among values returned by ISOImagingCondition\$values()

**Method** setImageQualityCode(): Set image quality code

*Usage:*

ISOImageDescription\$setImageQualityCode(code)

*Arguments:*

code object of class [ISOMetaIdentifier](#)

**Method** setCloudCoverPercentage(): Set cloud cover percentage

*Usage:*

ISOImageDescription\$setCloudCoverPercentage(cloudCoverPercentage)

*Arguments:*

cloudCoverPercentage object of class [numeric](#)

**Method** setProcessingLevelCode(): Set processing level code

*Usage:*

ISOImageDescription\$setProcessingLevelCode(code)

*Arguments:*

code object of class [ISOMetaIdentifier](#)

**Method** setCompressionGenerationQuantity(): Set compression generation quantity

*Usage:*

ISOImageDescription\$setCompressionGenerationQuantity(quantity)

*Arguments:*

quantity object of class [integer](#)

**Method** setTriangulationIndicator(): Set triangulation indicator

*Usage:*

ISOImageDescription\$setTriangulationIndicator(triangulationIndicator)



*Arguments:*

triangulationIndicator object of class [logical](#)

**Method** setRadiometricCalibrationDataAvailability(): Set radiometric calibration data availability

*Usage:*

```
ISOImageDescription$setRadiometricCalibrationDataAvailability(  
  radiometricCalibrationDataAvailability  
)
```

*Arguments:*

radiometricCalibrationDataAvailability object of class [logical](#)

**Method** setCameraCalibrationInformationAvailability(): Set camera calibration information availability

*Usage:*

```
ISOImageDescription$setCameraCalibrationInformationAvailability(  
  cameraCalibrationInformationAvailability  
)
```

*Arguments:*

cameraCalibrationInformationAvailability object of class [logical](#)

**Method** setFilmDistortionInformationAvailability(): Set film distortion information availability

*Usage:*

```
ISOImageDescription$setFilmDistortionInformationAvailability(  
  filmDistortionInformationAvailability  
)
```

*Arguments:*

filmDistortionInformationAvailability object of class [logical](#)

**Method** setLensDistortionInformationAvailability(): Set lens distortion information availability

*Usage:*

```
ISOImageDescription$setLensDistortionInformationAvailability(  
  lensDistortionInformationAvailability  
)
```

*Arguments:*

lensDistortionInformationAvailability object of class [logical](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create image description
md <- ISOImageDescription$new()
md$setAttributeDescription("test")
md$setContentTypes("modelResult")

#adding 3 arbitrary dimensions
for(i in 1:3){
  band <- ISOBand$new()
  mn <- ISOMemberName$new(aName = sprintf("name %s",i), attributeType = sprintf("type %s",i))
  band$setSequenceIdentifier(mn)
  band$setDescriptor("descriptor")
  band$setMaxValue(10)
  band$setMinValue(1)
  gml <- GMLBaseUnit$new(id = sprintf("ID%s",i))
  gml$setDescriptionReference("someref")
  gml$setIdentifier("identifier", "codespace")
  gml$addName("name1", "codespace")
  gml$addName("name2", "codespace")
  gml$setQuantityTypeReference("someref")
  gml$setCatalogSymbol("symbol")
  gml$setUnitsSystem("somelink")
  band$setUnits(gml)
  band$setPeakResponse(9)
  band$setBitsPerValue(5)
  band$setToneGradation(100)
  band$setScaleFactor(1)
  band$setOffset(4)
  md$addDimension(band)
}

md$setIlluminationElevationAngle(15)
md$setIlluminationAzimuthAngle(10)
md$setImagingCondition("rain")
md$setImageQualityCode("bad")
md$setCloudCoverPercentage(90)
md$setProcessingLevelCode("high")
md$setCompressionGenerationQuantity(1L)
md$setTriangulationIndicator(FALSE)
md$setRadiometricCalibrationDataAvailability(FALSE)
md$setCameraCalibrationInformationAvailability(FALSE)
md$setFilmDistortionInformationAvailability(FALSE)
md$setLensDistortionInformationAvailability(FALSE)
```

```
xml <- md$encode()
```

---

```
ISOImageryAbstractGeolocationInformation  
  ISOImageryAbstractGeolocationInformation
```

---

**Description**

ISOImageryAbstractGeolocationInformation

ISOImageryAbstractGeolocationInformation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOimagery geolocation information

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryAbstractGeolocationInformation

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryAbstractGeolocationInformation$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

abstract class

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

---

ISOImageryAcquisitionInformation

*ISOImageryAcquisitionInformation*

---

**Description**

ISOImageryAcquisitionInformation

ISOImageryAcquisitionInformation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Imagery AcquisitionInformation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryAcquisitionInformation

**Public fields**

instrument instrument [0..\*]: ISOImageryInstrument

operation operation [0..\*]: ISOImageryOperation

platform platform [0..\*]: ISOImageryPlatform

acquisitionPlan acquisitionPlan [0..\*]: ISOImageryPlan

objective objective [0..\*]: ISOImageryObjective

acquisitionRequirement acquisitionRequirement [0..\*]: ISOImageryRequirement

environmentalConditions environmentalConditions [0..1]: ISOImageryEnvironmentalRecord

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

- [ISOImageryAcquisitionInformation\\$new\(\)](#)
- [ISOImageryAcquisitionInformation\\$addInstrument\(\)](#)
- [ISOImageryAcquisitionInformation\\$delInstrument\(\)](#)
- [ISOImageryAcquisitionInformation\\$addOperation\(\)](#)
- [ISOImageryAcquisitionInformation\\$delOperation\(\)](#)
- [ISOImageryAcquisitionInformation\\$addPlatform\(\)](#)
- [ISOImageryAcquisitionInformation\\$delPlatform\(\)](#)
- [ISOImageryAcquisitionInformation\\$addPlan\(\)](#)
- [ISOImageryAcquisitionInformation\\$delPlan\(\)](#)
- [ISOImageryAcquisitionInformation\\$addObjective\(\)](#)
- [ISOImageryAcquisitionInformation\\$delObjective\(\)](#)
- [ISOImageryAcquisitionInformation\\$addRequirement\(\)](#)
- [ISOImageryAcquisitionInformation\\$delRequirement\(\)](#)
- [ISOImageryAcquisitionInformation\\$setEnvironmentConditions\(\)](#)
- [ISOImageryAcquisitionInformation\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOImageryAcquisitionInformation$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addInstrument\(\)](#): Adds instrument

*Usage:*

```
ISOImageryAcquisitionInformation$addInstrument(instrument)
```

*Arguments:*

instrument object of class [ISOImageryInstrument](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delInstrument\(\)](#): Deletes instrument

*Usage:*

```
ISOImageryAcquisitionInformation$delInstrument(instrument)
```

*Arguments:*

instrument object of class [ISOImageryInstrument](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** [addOperation\(\)](#): Adds operation

*Usage:*

```
ISOImageryAcquisitionInformation$addOperation(operation)
```

*Arguments:*

operation object of class [ISOImageryOperation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delOperation():** Deletes operation*Usage:*

ISOImageryAcquisitionInformation\$delOperation(operation)

*Arguments:*

operation object of class [ISOImageryOperation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addPlatform():** Adds platform*Usage:*

ISOImageryAcquisitionInformation\$addPlatform(platform)

*Arguments:*

platform object of class [ISOImageryPlatform](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delPlatform():** Deletes platform*Usage:*

ISOImageryAcquisitionInformation\$delPlatform(platform)

*Arguments:*

platform object of class [ISOImageryPlatform](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addPlan():** Adds plan*Usage:*

ISOImageryAcquisitionInformation\$addPlan(plan)

*Arguments:*

plan object of class [ISOImageryPlan](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delPlan():** Deletes plan*Usage:*

ISOImageryAcquisitionInformation\$delPlan(plan)

*Arguments:*

plan object of class [ISOImageryPlan](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addObjective():** Adds objective*Usage:*

ISOImageryAcquisitionInformation\$addObjective(objective)

*Arguments:*

objective object of class [ISOImageryObjective](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delObjective(): Deletes objective

*Usage:*

ISOImageryAcquisitionInformation\$delObjective(objective)

*Arguments:*

objective object of class [ISOImageryObjective](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addRequirement(): Adds requirement

*Usage:*

ISOImageryAcquisitionInformation\$addRequirement(requirement)

*Arguments:*

requirement object of class [ISOImageryRequirement](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delRequirement(): Deletes requirement

*Usage:*

ISOImageryAcquisitionInformation\$delRequirement(requirement)

*Arguments:*

requirement object of class [ISOImageryRequirement](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setEnvironmentConditions(): Set environment conditions

*Usage:*

ISOImageryAcquisitionInformation\$setEnvironmentConditions(conditions)

*Arguments:*

conditions object of class [ISOImageryEnvironmentalRecord](#)

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

*Usage:*

ISOImageryAcquisitionInformation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – AcquisitionInformation – Part 2: Extensions for imagery and gridded data

**Examples**

```
md = ISOImageryAcquisitionInformation$new()
xml <- md$encode()
```

---

ISOImageryAlgorithm    *ISOImageryAlgorithm*

---

**Description**

ISOImageryAlgorithm  
ISOImageryAlgorithm

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery algorithm

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryAlgorithm

**Public fields**

citation citation [1..1]: ISOCitation  
description description [1..1]: character|ISOLocalisedCharacterString

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

- [ISOImageryAlgorithm\\$new\(\)](#)
- [ISOImageryAlgorithm\\$setCitation\(\)](#)
- [ISOImageryAlgorithm\\$setDescription\(\)](#)
- [ISOImageryAlgorithm\\$clone\(\)](#)

**Method** [new\(\)](#): Initialized object

*Usage:*



```
ISOImageryAlgorithm$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setCitation(): Set citation

*Usage:*

```
ISOImageryAlgorithm$setCitation(citation)
```

*Arguments:*

citation object of class [ISOCitation](#)

**Method** setDescription(): Set description

*Usage:*

```
ISOImageryAlgorithm$setDescription(description, locales = NULL)
```

*Arguments:*

description description

locales list of localized texts. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
md <- ISOImageryAlgorithm$new()

#add citation
rp1 <- ISOResponsibleParty$new()
rp1$setIndividualName("someone1")
rp1$setOrganisationName("somewhere1")
rp1$setPositionName("someposition1")
rp1$setRole("pointOfContact")
contact1 <- ISOContact$new()
phone1 <- ISOTelephone$new()
phone1$setVoice("myphonenumber1")
phone1$setFacsimile("myfacsimile1")
contact1$setPhone(phone1)
```

```

address1 <- ISOAddress$new()
address1$setDeliveryPoint("theaddress1")
address1$setCity("thecity1")
address1$setPostalCode("111")
address1$setCountry("France")
address1$setEmail("someone1@theorg.org")
contact1$setAddress(address1)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact1$setOnlineResource(res)
rp1$setContactInfo(contact1)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp1)
md$setCitation(ct)
md$setDescription("some description")

xml <- md$encode()

```

---

ISOImageryBand

*ISOImageryBand*


---

## Description

ISOImageryBand  
ISOImageryBand

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO imagery band

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISORangeDimension](#)  
-> [geometa::ISOBand](#) -> ISOImageryBand

**Public fields**

bandBoundaryDefinition bandBoundaryDefinition [0..1]: ISOImageryBandDefinition  
 nominalSpatialResolution nominalSpatialResolution [0..1] ISOBaseReal  
 transferFunctionType transferFunctionType [0..1]: ISOImageryTransferFunctionType  
 transmittedPolarisation transmittedPolarisation [0..1]: ISOImageryPolarisationOrientation  
 detectedPolarisation detectedPolarisation [0..1]: ISOImageryPolarisationOrientation

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

- [ISOImageryBand\\$new\(\)](#)
- [ISOImageryBand\\$setBandBoundaryDefinition\(\)](#)
- [ISOImageryBand\\$setNominalSpatialResolution\(\)](#)
- [ISOImageryBand\\$setTransferFunctionType\(\)](#)
- [ISOImageryBand\\$setTransmittedPolarisation\(\)](#)
- [ISOImageryBand\\$setDetectedPolarisation\(\)](#)
- [ISOImageryBand\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOImageryBand$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setBandBoundaryDefinition()`: Set band boundary definition

*Usage:*

`ISOImageryBand$setBandBoundaryDefinition(definition)`

*Arguments:*

`definition` object of class [ISOImageryBandDefinition](#) or [character](#) among values returned by `ISOImageryBandDefinition$values()`

**Method** `setNominalSpatialResolution()`: Set nominal spatial resolution

*Usage:*

`ISOImageryBand$setNominalSpatialResolution(resolution)`

*Arguments:*

`resolution` object of class [numeric](#)

**Method** `setTransferFunctionType()`: Set transfer function type

*Usage:*

`ISOImageryBand$setTransferFunctionType(functionType)`

*Arguments:*

`functionType` object of class [ISOImageryTransferFunctionType](#) or any [character](#) from values returned by `ISOImageryTransferFunctionType$values()`

**Method** setTransmittedPolarisation(): Set transmitted polarisation

*Usage:*

```
ISOImageryBand$setTransmittedPolarisation(polarisation)
```

*Arguments:*

polarisation object of class [ISOImageryPolarisationOrientation](#) or any [character](#) from values returned by `ISOImageryPolarisationOrientation$values()`

**Method** setDetectedPolarisation(): Set detected polarisation

*Usage:*

```
ISOImageryBand$setDetectedPolarisation(polarisation)
```

*Arguments:*

polarisation object of class [ISOImageryPolarisationOrientation](#) or any [character](#) from values returned by `ISOImageryPolarisationOrientation$values()`

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### Examples

```
#create band range dimension
md <- ISOImageryBand$new()
md$setSequenceIdentifier(ISOMemberName$new(aName = "name", attributeType = "type"))
md$setDescriptor("descriptor")
md$setMaxValue(10)
md$setMinValue(1)
gml <- GMLBaseUnit$new(id = "ID")
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
gml$setUnitsSystem("somelink")
md$setUnits(gml)
md$setPeakResponse(9)
md$setBitsPerValue(5)
md$setToneGradation(100)
md$setScaleFactor(1)
md$setOffset(4)

md$setBandBoundaryDefinition("fiftyPercent")
```

```
md$setNominalSpatialResolution(14.5)
md$setTransferFunctionType("linear")
md$setTransmittedPolarisation("horizontal")
md$setDetectedPolarisation("horizontal")

xml <- md$encode()
```

---

ISOImageryBandDefinition

*ISOImageryBandDefinition*

---

## Description

ISOImageryBandDefinition

ISOImageryBandDefinition

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO Imagery Band definition

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOImageryBandDefinition

## Methods

### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryBandDefinition$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#possible values
values <- ISOImageryBandDefinition$values(labels = TRUE)

#some def
fifty <- ISOImageryBandDefinition$new(value = "fiftyPercent")
```

---

ISOImageryContext	<i>ISOImageryContext</i>
-------------------	--------------------------

---

**Description**

ISOImageryContext  
ISOImageryContext

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Imagery Context

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOImageryContext

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOImageryContext$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
value value  
description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#possible values  
values <- ISOImageryContext$values(labels = TRUE)  
  
#some def  
acquisition <- ISOImageryContext$new(value = "acquisition")
```

---

ISOImageryCoverageDescription

*ISOImageryCoverageDescription*

---

**Description**

ISOImageryCoverageDescription

ISOImageryCoverageDescription

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery image description

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOContentInformation](#)  
 -> [geometa::ISOCoverageDescription](#) -> ISOImageryCoverageDescription

**Public fields**

rangeElementDescription rangeElementDescription [0..\*]: ISOImageryRangeElementDescription

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

- [ISOImageryCoverageDescription\\$new\(\)](#)
- [ISOImageryCoverageDescription\\$addRangeElementDescription\(\)](#)
- [ISOImageryCoverageDescription\\$delRangeElementDescription\(\)](#)
- [ISOImageryCoverageDescription\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryCoverageDescription\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addRangeElementDescription\(\)](#): Adds range element description

*Usage:*

[ISOImageryCoverageDescription\\$addRangeElementDescription\(description\)](#)

*Arguments:*

description object of class [ISOImageryRangeElementDescription](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delRangeElementDescription\(\)](#): Deletes range element description

*Usage:*

[ISOImageryCoverageDescription\\$delRangeElementDescription\(description\)](#)

*Arguments:*

description object of class [ISOImageryRangeElementDescription](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

[ISOImageryCoverageDescription\\$clone\(deep = FALSE\)](#)

*Arguments:*

deep Whether to make a deep clone.



**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#create coverage description
md <- ISOImageryCoverageDescription$new()
md$setAttributeDescription("test")
md$setContentTypes("modelResult")

#adding 3 arbitrary dimensions
for(i in 1:3){
  band <- ISOBand$new()
  mn <- ISOMemberName$new(aName = sprintf("name %s",i), attributeType = sprintf("type %s",i))
  band$setSequenceIdentifier(mn)
  band$setDescriptor("descriptor")
  band$setMaxValue(10)
  band$setMinValue(1)
  gml <- GMLBaseUnit$new(id = sprintf("ID%s",i))
  gml$setDescriptionReference("someref")
  gml$setIdentifier("identifier", "codespace")
  gml$addName("name1", "codespace")
  gml$addName("name2", "codespace")
  gml$setQuantityTypeReference("someref")
  gml$setCatalogSymbol("symbol")
  gml$setUnitsSystem("somelink")
  band$setUnits(gml)
  band$setPeakResponse(9)
  band$setBitsPerValue(5)
  band$setToneGradation(100)
  band$setScaleFactor(1)
  band$setOffset(4)
  md$addDimension(band)
}

des <- ISOImageryRangeElementDescription$new()
des$setName("name")
des$setDefinition("description")
des$addRangeElement("record1")
des$addRangeElement("record2")
md$addRangeElementDescription(des)
xml <- md$encode()
```

---

ISOImageryCoverageResult  
*ISOImageryCoverageResult*

---

### Description

ISOImageryCoverageResult  
 ISOImageryCoverageResult

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery coverage result

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractResult](#)  
 -> ISOImageryCoverageResult

### Public fields

spatialRepresentationType spatialRepresentationType [1..1]: ISOSpatialRepresentationType  
 resultFile resultFile [1..1]: ISODataFile  
 resultSpatialRepresentation resultSpatialRepresentation [1..1]: ISOSpatialRepresentation  
 resultContentDescription resultContentDescription [1..1]: ISOCoverageDescription  
 resultFormat resultFormat [1..1]: ISOFormat

### Methods

#### Public methods:

- [ISOImageryCoverageResult\\$new\(\)](#)
- [ISOImageryCoverageResult\\$setSpatialRepresentationType\(\)](#)
- [ISOImageryCoverageResult\\$setResultFile\(\)](#)
- [ISOImageryCoverageResult\\$setResultSpatialRepresentation\(\)](#)
- [ISOImageryCoverageResult\\$setResultCoverageDescription\(\)](#)
- [ISOImageryCoverageResult\\$setResultFormat\(\)](#)
- [ISOImageryCoverageResult\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryCoverageResult\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setSpatialRepresentationType(): Set spatial representation type

*Usage:*

```
ISOImageryCoverageResult$setSpatialRepresentationType(  
    spatialRepresentationType  
)
```

*Arguments:*

spatialRepresentationType object of class [ISOSpatialRepresentationType](#) or [character](#) among values returned by [ISOSpatialRepresentationType\\$values\(\)](#)

**Method** setResultFile(): Set result file

*Usage:*

```
ISOImageryCoverageResult$setResultFile(resultFile)
```

*Arguments:*

resultFile object of class [ISODataFile](#)

**Method** setResultSpatialRepresentation(): Set result spatial representation

*Usage:*

```
ISOImageryCoverageResult$setResultSpatialRepresentation(spatialRepresentation)
```

*Arguments:*

spatialRepresentation object of class [ISOSpatialRepresentation](#)

**Method** setResultCoverageDescription(): Set result coverage description

*Usage:*

```
ISOImageryCoverageResult$setResultCoverageDescription(coverageDescription)
```

*Arguments:*

coverageDescription object of class [ISOCoverageDescription](#)

**Method** setResultFormat(): Set format

*Usage:*

```
ISOImageryCoverageResult$setResultFormat(format)
```

*Arguments:*

format object of class [ISOFormat](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

---

ISOImageryEnvironmentalRecord

*ISOImageryEnvironmentalRecord*

---

**Description**

ISOImageryEnvironmentalRecord

ISOImageryEnvironmentalRecord

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery environmental record

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryEnvironmentalRecord

**Public fields**

averageAirTemperature averageAirTemperature

maxRelativeHumidity maxRelativeHumidity

maxAltitude maxAltitude

meterologicalConditions meterologicalConditions

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

- [ISOImageryEnvironmentalRecord\\$new\(\)](#)
- [ISOImageryEnvironmentalRecord\\$setAverageAirTemperature\(\)](#)
- [ISOImageryEnvironmentalRecord\\$setMaxRelativeHumidity\(\)](#)
- [ISOImageryEnvironmentalRecord\\$setMaxAltitude\(\)](#)
- [ISOImageryEnvironmentalRecord\\$setMeterologicalConditions\(\)](#)
- [ISOImageryEnvironmentalRecord\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

```
ISOImageryEnvironmentalRecord$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setAverageAirTemperature(): Set average air temperature

*Usage:*

```
ISOImageryEnvironmentalRecord$setAverageAirTemperature(temperature)
```

*Arguments:*

temperature object of class [numeric](#)

**Method** setMaxRelativeHumidity(): Set max relative humidity

*Usage:*

```
ISOImageryEnvironmentalRecord$setMaxRelativeHumidity(humidity)
```

*Arguments:*

humidity object of class [numeric](#)

**Method** setMaxAltitude(): Set max altitude

*Usage:*

```
ISOImageryEnvironmentalRecord$setMaxAltitude(altitude)
```

*Arguments:*

altitude object of class [numeric](#)

**Method** setMeterologicalConditions(): Set meterological conditions

*Usage:*

```
ISOImageryEnvironmentalRecord$setMeterologicalConditions(  
  conditions,  
  locales = NULL  
)
```

*Arguments:*

conditions conditions

locales list of localized texts. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
md <- ISOImageryEnvironmentalRecord$new()
md$setAverageAirTemperature(3)
md$setMaxRelativeHumidity(67)
md$setMaxAltitude(400)
md$setMeterologicalConditions("some conditions")
xml <- md$encode()
```

---

ISOImageryEvent

*ISOImageryEvent*

---

**Description**

ISOImageryEvent

ISOImageryEvent

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery event

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryEvent

**Public fields**

identifier identifier [1..1]: ISOMetaIdentifier

trigger trigger [1..1]: ISOImageryTrigger

context context [1..1]: ISOImageryContext

sequence sequence [1..1]: ISOImagerySequence

time time [1..1]: POSIXt

relatedPass relatedPass [0..1]: ISOImageryPlatformPass

relatedSensor relatedSensor [0..\*]: ISOImageryInstrument

expectedObjective expectedObjective [0..\*]: ISOImageryObjective

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

- [ISOImageryEvent\\$new\(\)](#)
- [ISOImageryEvent\\$setIdentifier\(\)](#)
- [ISOImageryEvent\\$setTrigger\(\)](#)
- [ISOImageryEvent\\$setContext\(\)](#)
- [ISOImageryEvent\\$setSequence\(\)](#)
- [ISOImageryEvent\\$setTime\(\)](#)
- [ISOImageryEvent\\$setPlatformPass\(\)](#)
- [ISOImageryEvent\\$addSensor\(\)](#)
- [ISOImageryEvent\\$delSensor\(\)](#)
- [ISOImageryEvent\\$addObjective\(\)](#)
- [ISOImageryEvent\\$delObjective\(\)](#)
- [ISOImageryEvent\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOImageryEvent$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** [setIdentifier\(\)](#): Set identifier

*Usage:*

`ISOImageryEvent$setIdentifier(identifier)`

*Arguments:*

`identifier` object of class [ISOMetaIdentifier](#) or [character](#)

**Method** [setTrigger\(\)](#): Set trigger

*Usage:*

`ISOImageryEvent$setTrigger(trigger)`

*Arguments:*

`trigger` object of class [ISOImageryTrigger](#) or any [character](#) among values returned by `ISOImageryTrigger$values()`

**Method** [setContext\(\)](#): Set context

*Usage:*

`ISOImageryEvent$setContext(context)`

*Arguments:*

`context` object of class [ISOImageryContext](#) or any [character](#) among values returned by `ISOImageryContext$values()`

**Method** [setSequence\(\)](#): Set sequence

*Usage:*

`ISOImageryEvent$setSequence(sequence)`

*Arguments:*

sequence object of class [ISOImagerySequence](#) or any [character](#) among values returned by `ISOImagerySequence$values()`

**Method setTime():** Set time*Usage:*

```
ISOImageryEvent$setTime(time)
```

*Arguments:*

time object of class [POSIXct](#)

**Method setPlatformPass():** Set platform pass*Usage:*

```
ISOImageryEvent$setPlatformPass(platformPass)
```

*Arguments:*

platformPass object of class [ISOImageryPlatformPass](#)

**Method addSensor():** Adds sensor*Usage:*

```
ISOImageryEvent$addSensor(sensor)
```

*Arguments:*

sensor object of class [ISOImageryInstrument](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delSensor():** Deletes sensor*Usage:*

```
ISOImageryEvent$delSensor(sensor)
```

*Arguments:*

sensor object of class [ISOImageryInstrument](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addObjective():** Adds objective*Usage:*

```
ISOImageryEvent$addObjective(objective)
```

*Arguments:*

objective object of class [ISOImageryObjective](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delObjective():** Deletes objective*Usage:*

```
ISOImageryEvent$delObjective(objective)
```

*Arguments:*

objective object of class [ISOImageryObjective](#)



*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
md <- ISOImageryEvent$new()
md$setIdentifier("event_1")
md$setTrigger("manual")
md$setContext("pass")
md$setSequence("instantaneous")
md$setTime(Sys.time())

xml <- md$encode()
```

---

ISOImageryGCP

*ISOImageryGCPCollection*

---

### Description

ISOImageryGCPCollection

ISOImageryGCPCollection

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery gcp collection

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLAbstractObject](#)  
-> ISOImageryGCP

**Public fields**

geographicCoordinates geographicCoordinates

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

- [ISOImageryGCP\\$new\(\)](#)
- [ISOImageryGCP\\$setGeographicCoordinates\(\)](#)
- [ISOImageryGCP\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

ISOImageryGCP\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setGeographicCoordinates(): Set geographic coordinates

*Usage:*

ISOImageryGCP\$setGeographicCoordinates(sfg = NULL, m = NULL)

*Arguments:*

sfg simple feature object from **sf**

m object of class [matrix](#)

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

*Usage:*

ISOImageryGCP\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
md <- ISOImageryGCP$new()
require(sf)
pt <- sf::st_point(c(1,1))
md$setGeographicCoordinates(sfg = pt)
xml <- md$encode()
```

---

ISOImageryGCPCollection  
*ISOImageryGCPCollection*

---

### Description

ISOImageryGCPCollection

ISOImageryGCPCollection

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery gcp collection

### Methods

`new(xml)` This method is used to instantiate an [ISOImageryGCPCollection](#)

`setCollectionIdentification(id)` Set the identifier, object of class integer

`setCollectionName(name, locales)` Sets a name (object of class "character"). Locale names can be specified as list with the locales argument.

`setCoordinateReferenceSystem(crs)` Sets the crs, object of class [ISOReferenceSystem](#)

`addGCP(gcp)` Adds a GCP, object of class [ISOImageryGCP](#)

`delGCP(gcp)` Deletes a GCP, object of class [ISOImageryGCP](#)

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOImageryAbstractGeolocationInformation](#)  
 -> [ISOImageryGCPCollection](#)

### Public fields

`collectionIdentification` collectionIdentification [1..1]: integer

`collectionName` collectionName [1..1]: character|ISOLocalisedCharacterString

`coordinateReferenceSystem` coordinateReferenceSystem [1..1]: ISOReferenceSystem

`gcp` gcp [0..\*]: list of [ISOImageryGCP](#)

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

- [ISOImageryGCPCollection\\$new\(\)](#)
- [ISOImageryGCPCollection\\$setCollectionIdentification\(\)](#)
- [ISOImageryGCPCollection\\$setCollectionName\(\)](#)
- [ISOImageryGCPCollection\\$setCoordinateReferenceSystem\(\)](#)
- [ISOImageryGCPCollection\\$addGCP\(\)](#)
- [ISOImageryGCPCollection\\$delGCP\(\)](#)
- [ISOImageryGCPCollection\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOImageryGCPCollection$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setCollectionIdentification()`: Set collection identification id

*Usage:*

`ISOImageryGCPCollection$setCollectionIdentification(id)`

*Arguments:*

`id` object of class [integer](#)

**Method** `setCollectionName()`: Set collection name

*Usage:*

`ISOImageryGCPCollection$setCollectionName(name, locales = NULL)`

*Arguments:*

`name` object of class [character](#)

`locales` list of localized names. Default is NULL

**Method** `setCoordinateReferenceSystem()`: Set coordinate reference system

*Usage:*

`ISOImageryGCPCollection$setCoordinateReferenceSystem(crs)`

*Arguments:*

`crs` object of class [ISOReferenceSystem](#)

**Method** `addGCP()`: Adds GCP

*Usage:*

`ISOImageryGCPCollection$addGCP(gcp)`

*Arguments:*

`gcp` object of class [ISOImageryGCP](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delGCP():** Deletes GCP

*Usage:*

```
ISOImageryGCPCollection$delGCP(gcp)
```

*Arguments:*

gcp object of class [ISOImageryGCP](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
md <- ISOImageryGCPCollection$new()
md$setCollectionIdentification(1L)
md$setCollectionName("name")
rs <- ISOReferenceSystem$new()
rsId <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")
rs$setReferenceSystemIdentifier(rsId)
md$setCoordinateReferenceSystem(rs)
xml <- md$encode()
```

---

ISOImageryGeometryType

*ISOImageryGeometryType*

---

### Description

ISOImageryGeometryType

ISOImageryGeometryType

### Format

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Imagery geometry type

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue
-> ISOImageryGeometryType
```

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

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

**Method new():** Initializes object

*Usage:*

```
ISOImageryGeometryType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#possible values
values <- ISOImageryGeometryType$values(labels = TRUE)

#some def
point <- ISOImageryGeometryType$new(value = "point")
```

---

ISOImageryGeorectified  
*ISOImageryGeorectified*

---

## Description

ISOImageryGeorectified  
ISOImageryGeorectified

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO image Georectified

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOSpatialRepresentation](#)  
-> [geometa::ISOGridSpatialRepresentation](#) -> [geometa::ISOGorectified](#) -> ISOImageryGeorectified

## Public fields

checkPoint checkPoint [0..\*]: ISOImageryGCP

## Methods

### Public methods:

- [ISOImageryGeorectified\\$new\(\)](#)
- [ISOImageryGeorectified\\$addCheckPoint\(\)](#)
- [ISOImageryGeorectified\\$delCheckPoint\(\)](#)
- [ISOImageryGeorectified\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryGeorectified\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addCheckPoint\(\)](#): Adds check point

*Usage:*

[ISOImageryGeorectified\\$addCheckPoint\(sfg = NULL, m = NULL\)](#)

*Arguments:*

sfg simple feature object from **sf**

m object of class [matrix](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delCheckPoint(): Deletes check point

*Usage:*

```
ISOImageryGeorectified$delCheckPoint(sfg = NULL, m = NULL)
```

*Arguments:*

sfg simple feature object from **sf**

m object of class [matrix](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

ISO 19115-2:2009 - Geographic information – Metadata – Part 2: Extensions for imagery and gridded data

---

ISOImageryGeoreferenceable

*ISOImageryGeoreferenceable*

---

#### Description

ISOImageryGeoreferenceable

ISOImageryGeoreferenceable

#### Format

[R6Class](#) object.

#### Value

Object of [R6Class](#) for modelling an ISO imagery Georeferenceable



**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOSpatialRepresentation](#)  
-> [geometa::ISOGridSpatialRepresentation](#) -> [geometa::ISOGeoreferenceable](#) -> [ISOImageryGeoreferenceable](#)

**Public fields**

geolocationInformation geolocationInformation [0..\*]: [ISOImageryGeolocationInformation](#)

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

- [ISOImageryGeoreferenceable\\$new\(\)](#)
- [ISOImageryGeoreferenceable\\$addGeolocationInformation\(\)](#)
- [ISOImageryGeoreferenceable\\$delGeolocationInformation\(\)](#)
- [ISOImageryGeoreferenceable\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOImageryGeoreferenceable$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addGeolocationInformation\(\)](#): Adds geolocation information

*Usage:*

```
ISOImageryGeoreferenceable$addGeolocationInformation(geolocationInfo)
```

*Arguments:*

geolocationInfo object of class inheriting [ISOImageryAbstractGeolocationInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delGeolocationInformation\(\)](#): Deletes geolocation information

*Usage:*

```
ISOImageryGeoreferenceable$delGeolocationInformation(geolocationInfo)
```

*Arguments:*

geolocationInfo object of class inheriting [ISOImageryAbstractGeolocationInformation](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata – Part 2: Extensions for imagery and gridded data

---

ISOImageryImageDescription

*ISOImageryImageDescription*

---

**Description**

ISOImageryImageDescription

ISOImageryImageDescription

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery image description

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOContentInformation](#)  
-> [geometa::ISOCoverageDescription](#) -> [geometa::ISOImageDescription](#) -> [ISOImageryImageDescription](#)

**Public fields**

rangeElementDescription rangeElementDescription [0..\*]: ISOImageryRangeElementDescription

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

- [ISOImageryImageDescription\\$new\(\)](#)
- [ISOImageryImageDescription\\$addRangeElementDescription\(\)](#)
- [ISOImageryImageDescription\\$delRangeElementDescription\(\)](#)
- [ISOImageryImageDescription\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryImageDescription\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** addRangeElementDescription(): Adds range element description

*Usage:*

```
ISOImageryImageDescription$addRangeElementDescription(description)
```

*Arguments:*

description object of class [ISOImageryRangeElementDescription](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delRangeElementDescription(): Deletes range element description

*Usage:*

```
ISOImageryImageDescription$delRangeElementDescription(description)
```

*Arguments:*

description object of class [ISOImageryRangeElementDescription](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#create image description
md <- ISOImageryImageDescription$new()
md$setAttributeDescription("test")
md$setContentTypes("modelResult")

#adding 3 arbitrary dimensions
for(i in 1:3){
  band <- ISOBand$new()
  mn <- ISOMemberName$new(aName = sprintf("name %s",i), attributeType = sprintf("type %s",i))
  band$setSequenceIdentifier(mn)
  band$setDescriptor("descriptor")
  band$setMaxValue(10)
  band$setMinValue(1)
```

```

gml <- GMLBaseUnit$new(id = sprintf("ID%s", i))
gml$setDescriptionReference("someref")
gml$setIdentifier("identifier", "codespace")
gml$addName("name1", "codespace")
gml$addName("name2", "codespace")
gml$setQuantityTypeReference("someref")
gml$setCatalogSymbol("symbol")
gml$setUnitsSystem("somelink")
band$setUnits(gml)
band$setPeakResponse(9)
band$setBitsPerValue(5)
band$setToneGradation(100)
band$setScaleFactor(1)
band$setOffset(4)
md$addDimension(band)
}

md$setIlluminationElevationAngle(15)
md$setIlluminationAzimuthAngle(10)
md$setImagingCondition("rain")
md$setImageQualityCode("bad")
md$setCloudCoverPercentage(90)
md$setProcessingLevelCode("high")
md$setCompressionGenerationQuantity(1L)
md$setTriangulationIndicator(FALSE)
md$setRadiometricCalibrationDataAvailability(FALSE)
md$setCameraCalibrationInformationAvailability(FALSE)
md$setFilmDistortionInformationAvailability(FALSE)
md$setLensDistortionInformationAvailability(FALSE)

des <- ISOImageryRangeElementDescription$new()
des$setName("name")
des$setDefinition("description")
des$addRangeElement("record1")
des$addRangeElement("record2")
md$addRangeElementDescription(des)
xml <- md$encode()

```

---

ISOImageryInstrument    *ISOImageryPlatform*

---

### Description

ISOImageryPlatform

ISOImageryPlatform

### Format

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery platform

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryInstrument

**Public fields**

citation citation [0..\*]: ISOCitation  
 identifier identifier [1..1]: ISOMetaIdentifier  
 type type [1..1]: character!ISOLocalisedCharacterString  
 description description [0..1]: character!ISOLocalisedCharacterString  
 mountedOn mountedOn [0..\*]: ISOImageryPlatform

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

- [ISOImageryInstrument\\$new\(\)](#)
- [ISOImageryInstrument\\$addCitation\(\)](#)
- [ISOImageryInstrument\\$delCitation\(\)](#)
- [ISOImageryInstrument\\$setIdentifier\(\)](#)
- [ISOImageryInstrument\\$setType\(\)](#)
- [ISOImageryInstrument\\$setDescription\(\)](#)
- [ISOImageryInstrument\\$addPlatform\(\)](#)
- [ISOImageryInstrument\\$delPlatform\(\)](#)
- [ISOImageryInstrument\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryInstrument\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addCitation\(\)](#): Adds citation

*Usage:*

[ISOImageryInstrument\\$addCitation\(citation\)](#)

*Arguments:*

citation object of class [ISOCitation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delCitation\(\)](#): Deletes citation

*Usage:*

ISOImageryInstrument\$delCitation(citation)

*Arguments:*

citation object of class [ISOCitation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setIdentifier():** Set identifier

*Usage:*

ISOImageryInstrument\$setIdentifier(identifier)

*Arguments:*

identifier object of class [ISOMetaIdentifier](#) or [character](#)

**Method setType():** Set type

*Usage:*

ISOImageryInstrument\$setType(type, locales = NULL)

*Arguments:*

type type

locales list of localized texts. Default is NULL

**Method setDescription():** Set description

*Usage:*

ISOImageryInstrument\$setDescription(description, locales = NULL)

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method addPlatform():** Adds platform

*Usage:*

ISOImageryInstrument\$addPlatform(platform)

*Arguments:*

platform object of class [ISOImageryPlatform](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delPlatform():** Deletes platform

*Usage:*

ISOImageryInstrument\$delPlatform(platform)

*Arguments:*

platform object of class [ISOImageryPlatform](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOImageryInstrument\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
md <- ISOImageryInstrument$new()
md$setIdentifier("identifier")
md$setType("type")
md$setDescription("description")
xml <- md$encode()
```

---

ISOImageryMetadata      *ISOImageryMetadata*

---

**Description**

ISOImageryMetadata

ISOImageryMetadata

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Imagery Metadata

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOMetadata](#) -> ISOImageryMetadata

**Public fields**

acquisitionInformation acquisitionInformation [0..\*]: ISOImageryAcquisitionInformation

## Methods

### Public methods:

- [ISOImageryMetadata\\$new\(\)](#)
- [ISOImageryMetadata\\$addAcquisitionInfo\(\)](#)
- [ISOImageryMetadata\\$delAcquisitionInfo\(\)](#)
- [ISOImageryMetadata\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryMetadata$new(xml = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `addAcquisitionInfo()`: Adds acquisition info

*Usage:*

```
ISOImageryMetadata$addAcquisitionInfo(acquisitionInfo)
```

*Arguments:*

`acquisitionInfo` object of class [ISOImageryAcquisitionInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delAcquisitionInfo()`: Deletes acquisition info

*Usage:*

```
ISOImageryMetadata$delAcquisitionInfo(acquisitionInfo)
```

*Arguments:*

`acquisitionInfo` object of class [ISOImageryAcquisitionInformation](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115-2:2009 - Geographic information – Metadata – Part 2: Extensions for imagery and gridded data



## Examples

```

#example 1 - WRITE: Create an ISO metadata and encode it as XML
#####
md = ISOImageryMetadata$new()
md$setFileIdentifier("my-metadata-identifier")
md$setParentIdentifier("my-parent-metadata-identifier")
md$setCharacterSet("utf8")
md$setLanguage("eng")
md$setDateStamp(ISOdate(2015, 1, 1, 1))
md$setMetadataStandardName("ISO 19115:2003/19139")
md$setMetadataStandardVersion("1.0")
md$setDataSetURI("my-dataset-identifier")

#add 3 contacts
for(i in 1:3){
  rp <- ISOResponsibleParty$new()
  rp$setIndividualName(paste0("someone",i))
  rp$setOrganisationName("somewhere")
  rp$setPositionName(paste0("someposition",i))
  rp$setRole("pointOfContact")
  contact <- ISOContact$new()
  phone <- ISOTelephone$new()
  phone$setVoice(paste0("myphonenumber",i))
  phone$setFacsimile(paste0("myfacsimile",i))
  contact$setPhone(phone)
  address <- ISOAddress$new()
  address$setDeliveryPoint("theaddress")
  address$setCity("thecity")
  address$setPostalCode("111")
  address$setCountry("France")
  address$setEmail("someone@theorg.org")
  contact$setAddress(address)
  res <- ISOOnlineResource$new()
  res$setLinkage("http://somelink")
  res$setName("someresourcenam")
  contact$setOnlineResource(res)
  rp$setContactInfo(contact)
  md$addContact(rp)
}

#VectorSpatialRepresentation
vsr <- ISOVectorSpatialRepresentation$new()
vsr$setTopologyLevel("geometryOnly")
geomObject <- ISOGeometricObjects$new()
geomObject$setGeometricObjectType("surface")
geomObject$setGeometricObjectCount(5L)
vsr$addGeometricObjects(geomObject)
md$addSpatialRepresentationInfo(vsr)

#ReferenceSystem
rs <- ISOReferenceSystem$new()
rsId <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")

```

```

rs$setReferenceSystemIdentifier(rsId)
md$addReferenceSystemInfo(rs)

#data identification
ident <- ISODataIdentification$new()
ident$setAbstract("abstract")
ident$setPurpose("purpose")
ident$addCredit("credit1")
ident$addCredit("credit2")
ident$addCredit("credit3")
ident$addStatus("completed")
ident$addLanguage("eng")
ident$addCharacterSet("utf8")
ident$addTopicCategory("biota")
ident$addTopicCategory("oceans")

#adding a point of contact
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://somelink")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
ident$addPointOfContact(rp)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(as.Date(ISOdate(2015, 1, 1, 1)))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp)

```

```
ident$setCitation(ct)

#graphic overview
go1 <- ISOBrowseGraphic$new(
  fileName = "http://www.somefile.org/png1",
  fileDescription = "Map Overview 1",
  fileType = "image/png"
)
go2 <- ISOBrowseGraphic$new(
  fileName = "http://www.somefile.org/png2",
  fileDescription = "Map Overview 2",
  fileType = "image/png"
)
ident$addGraphicOverview(go1)
ident$addGraphicOverview(go2)

#maintenance information
mi <- ISOMaintenanceInformation$new()
mi$setMaintenanceFrequency("daily")
ident$addResourceMaintenance(mi)

#adding legal constraints
lc <- ISOLegalConstraints$new()
lc$addUseLimitation("limitation1")
lc$addUseLimitation("limitation2")
lc$addUseLimitation("limitation3")
lc$addAccessConstraint("copyright")
lc$addAccessConstraint("license")
lc$addUseConstraint("copyright")
lc$addUseConstraint("license")
ident$addResourceConstraints(lc)

#adding security constraints
sc <- ISOSecurityConstraints$new()
sc$setClassification("secret")
sc$setUserNote("ultra secret")
sc$setClassificationSystem("no classification in particular")
sc$setHandlingDescription("description")
ident$addResourceConstraints(sc)

#adding extent
extent <- ISOExtent$new()
bbox <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
extent$addGeographicElement(bbox)
ident$addExtent(extent)

#add keywords
kwds <- ISOKeywords$new()
kwds$addKeyword("keyword1")
kwds$addKeyword("keyword2")
kwds$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle("General")
```

```

th$addDate(d)
kwds$setThesaurusName(th)
ident$addKeywords(kwds)

#add an INSPIRE spatial data theme?
inspire_kwd <- ISOKeywords$new()
anc1 <- ISOAnchor$new(
  name = "Environmental monitoring facilities",
  href = "http://inspire.ec.europa.eu/theme/ef"
)
inspire_kwd$addKeyword(anc1)
inspire_kwd$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle(
  ISOAnchor$new(
    name = "GEMET - INSPIRE themes, version 1.0",
    href="http://www.eionet.europa.eu/gemet/inspire_themes"
  )
)
inspire_date <- ISODate$new()
inspire_date$setDate(as.Date("2008-06-01"))
inspire_date$setDateType("publication")
th$addDate(inspire_date)
inspire_kwd$setThesaurusName(th)
ident$addKeywords(inspire_kwd)

#supplementalInformation
ident$setSupplementalInformation("some additional information")

#spatial representation type
ident$addSpatialRepresentationType("vector")

md$addIdentificationInfo(ident)

#Distribution
distrib <- ISODistribution$new()
dto <- ISODigitalTransferOptions$new()
for(i in 1:3){
  or <- ISOOnlineResource$new()
  or$setLinkage(paste0("http://somelink",i))
  or$setName(paste0("name",i))
  or$setDescription(paste0("description",i))
  or$setProtocol("WWW:LINK-1.0-http--link")
  dto$addOnlineResource(or)
}
distrib$addDigitalTransferOptions(dto)
md$setDistributionInfo(distrib)

#create dataQuality object with a 'dataset' scope
dq <- ISODataQuality$new()
scope <- ISOScope$new()
scope$setLevel("dataset")
dq$setScope(scope)

```

```

#add data quality reports...

#add a report the data quality
dc <- ISODomainConsistency$new()
result <- ISOConformanceResult$new()
spec <- ISOCitation$new()
spec$setTitle("Data Quality check")
spec$addAlternateTitle("This is is some data quality check report")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dc$addResult(result)
dq$addReport(dc)

#add INSPIRE reports?
#INSPIRE - interoperability of spatial data sets and services
dc_inspire1 <- ISODomainConsistency$new()
cr_inspire1 <- ISOConformanceResult$new()
cr_inspire_spec1 <- ISOCitation$new()
cr_title1 <- paste(
  "Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC",
  "of the European Parliament and of the Council as regards interoperability of spatial data",
  "sets and services"
)
cr_inspire_spec1$setTitle(cr_title1)
cr_inspire1$setExplanation("See the referenced specification")
cr_inspire_date1 <- ISODate$new()
cr_inspire_date1$setDate(ISOdate(2010,12,8))
cr_inspire_date1$setDateType("publication")
cr_inspire_spec1$addDate(cr_inspire_date1)
cr_inspire1$setSpecification(cr_inspire_spec1)
cr_inspire1$setPass(TRUE)
dc_inspire1$addResult(cr_inspire1)
dq$addReport(dc_inspire1)
#INSPIRE - metadata
dc_inspire2 <- ISODomainConsistency$new()
cr_inspire2 <- ISOConformanceResult$new()
cr_inspire_spec2 <- ISOCitation$new()
cr_title2 <- paste(
  "COMMISSION REGULATION (EC) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC",
  "of the European Parliament and of the Council as regards metadata"
)
cr_inspire_spec2$setTitle(cr_title2)
cr_inspire2$setExplanation("See the referenced specification")
cr_inspire_date2 <- ISODate$new()
cr_inspire_date2$setDate(ISOdate(2008,12,4))
cr_inspire_date2$setDateType("publication")
cr_inspire_spec2$addDate(cr_inspire_date2)

```

```

cr_inspire2$setSpecification(cr_inspire_spec2)
cr_inspire2$setPass(TRUE)
dc_inspire2$addResult(cr_inspire2)
dq$addReport(dc_inspire2)

#add lineage
lineage <- ISOLineage$new()
lineage$setStatement("statement")
dq$setLineage(lineage)

md$addDataQualityInfo(dq)

#Content Information
#-----
#add a feature catalogue description
fcd <- ISOFeatureCatalogueDescription$new()
fcd$setComplianceCode(FALSE)
fcd$addLanguage("eng")
fcd$setIncludedWithDataset(FALSE)
cit = ISOCitation$new()
cit$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
cit$addDate(d)
cit$setEdition("1.0")
cit$setEditionDate(as.Date(ISOdate(2015, 1, 1, 1)))
contact = ISOContact$new()
fcLink <- ISOOnlineResource$new()
fcLink$setLinkage("http://somedata/featurecatalogue")
contact$setOnlineResource(fcLink)
rp = ISOResponsibleParty$new()
rp$setRole("publisher")
rp$setContactInfo(contact)
cit$addCitedResponsibleParty(rp)
fcd$addFeatureCatalogueCitation(cit)
md$addContentInfo(fcd)

#XML representation of the ISOImageryMetadata
xml <- md$encode()

#example 2 - READ: Create an ISO imagery metadata reading from XML
#####

require(XML)
xmlfile <- system.file("extdata/examples", "metadata.xml", package = "geometa")
xml <- xmlParse(xmlfile)
md <- ISOImageryMetadata$new(xml = xml)

```

---

ISOImageryNominalResolution  
*ISOImageryNominalResolution*

---

### Description

ISOImageryNominalResolution  
ISOImageryNominalResolution

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery nominal resolution

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> ISOImageryNominalResolution

### Public fields

scanningResolution scanningResolution [0..1]: ISODistance  
groundResolution groundResolution [0..1]: ISODistance

### Methods

#### Public methods:

- [ISOImageryNominalResolution\\$new\(\)](#)
- [ISOImageryNominalResolution\\$setScanningResolution\(\)](#)
- [ISOImageryNominalResolution\\$setGroundResolution\(\)](#)
- [ISOImageryNominalResolution\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryNominalResolution\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setScanningResolution\(\)](#): Set scanning resolution

*Usage:*

[ISOImageryNominalResolution\\$setScanningResolution\(resolution\)](#)

*Arguments:*

resolution object of class [ISODistance](#)

**Method** `setGroundResolution()`: Set ground resolution

*Usage:*

```
ISOImageryNominalResolution$setGroundResolution(resolution)
```

*Arguments:*

resolution object of class [ISODistance](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
#encoding
dq <- ISOImageryNominalResolution$new()
d <- ISODistance$new(value = 1, uom = "m", useUomURI = TRUE)
dq$setScanningResolution(d)
dq$setGroundResolution(d)

#xml
xml <- dq$encode()
```

---

ISOImageryObjective    *ISOImageryObjective*

---

### Description

ISOImageryObjective

ISOImageryObjective

### Format

[R6Class](#) object.



**Value**

Object of [R6Class](#) for modelling an ISO imagery objective

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryObjective

**Public fields**

identifier identifier [1..1]: ISOMetaIdentifier  
 priority priority [0..1]: character|ISOLocalisedCharacterString  
 type type [0..\*]: ISOImageryObjectiveType  
 function function [0..\*]: character|ISOLocalisedCharacterString  
 extent extent [0..\*]: ISOExtent  
 sensingInstrument sensingInstrument [0..\*]: ISOImageryInstrument  
 pass pass [0..\*]: ISOImageryPlatformPass  
 objectiveOccurance objectiveOccurance [1..\*]: ISOImageryEvent

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

- [ISOImageryObjective\\$new\(\)](#)
- [ISOImageryObjective\\$setIdentifier\(\)](#)
- [ISOImageryObjective\\$setPriority\(\)](#)
- [ISOImageryObjective\\$addType\(\)](#)
- [ISOImageryObjective\\$delType\(\)](#)
- [ISOImageryObjective\\$addFunction\(\)](#)
- [ISOImageryObjective\\$delFunction\(\)](#)
- [ISOImageryObjective\\$addExtent\(\)](#)
- [ISOImageryObjective\\$delExtent\(\)](#)
- [ISOImageryObjective\\$addSensingInstrument\(\)](#)
- [ISOImageryObjective\\$delSensingInstrument\(\)](#)
- [ISOImageryObjective\\$addPlatformPass\(\)](#)
- [ISOImageryObjective\\$delPlatformPass\(\)](#)
- [ISOImageryObjective\\$addObjectiveOccurance\(\)](#)
- [ISOImageryObjective\\$delObjectiveOccurance\(\)](#)
- [ISOImageryObjective\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOImageryObjective$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setIdentifier(): Set identifier

*Usage:*

```
ISOImageryObjective$setIdentifier(identifier)
```

*Arguments:*

identifier object of class [ISOMetaIdentifier](#) or character

**Method** setPriority(): Set priority

*Usage:*

```
ISOImageryObjective$setPriority(priority, locales = NULL)
```

*Arguments:*

priority priority

locales list of localized texts. Default is NULL

**Method** addType(): Adds type

*Usage:*

```
ISOImageryObjective$addType(type)
```

*Arguments:*

type object of class [ISOImageryObjectiveType](#) or any character among values returned by `ISOImageryObjectiveType$values()`

*Returns:* TRUE if added, FALSE otherwise

**Method** delType(): Deletes type

*Usage:*

```
ISOImageryObjective$delType(type)
```

*Arguments:*

type object of class [ISOImageryObjectiveType](#) or any character among values returned by `ISOImageryObjectiveType$values()`

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addFunction(): Adds function

*Usage:*

```
ISOImageryObjective$addFunction(fun, locales = NULL)
```

*Arguments:*

fun fun

locales list of localized texts. Default is NULL

*Returns:* TRUE if added, FALSE otherwise

**Method** delFunction(): Deletes function

*Usage:*

```
ISOImageryObjective$delFunction(fun, locales = NULL)
```

*Arguments:*

fun fun

locales list of localized texts. Default is NULL

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addExtent(): Adds extent

*Usage:*

ISOImageryObjective\$addExtent(extent)

*Arguments:*

extent extent, object of class [ISOExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delExtent(): Deletes extent

*Usage:*

ISOImageryObjective\$delExtent(extent)

*Arguments:*

extent extent, object of class [ISOExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addSensingInstrument(): Adds sensing instrument

*Usage:*

ISOImageryObjective\$addSensingInstrument(instrument)

*Arguments:*

instrument object of class [ISOImageryInstrument](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSensingInstrument(): Deletes sensing instrument

*Usage:*

ISOImageryObjective\$delSensingInstrument(instrument)

*Arguments:*

instrument object of class [ISOImageryInstrument](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addPlatformPass(): Adds platform pass

*Usage:*

ISOImageryObjective\$addPlatformPass(pass)

*Arguments:*

pass object of class [ISOImageryPlatformPass](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delPlatformPass(): Deletes platform pass

*Usage:*

ISOImageryObjective\$delPlatformPass(pass)

*Arguments:*

pass object of class [ISOImageryPlatformPass](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addObjectiveOccurance(): Adds objective occurrence

*Usage:*

```
ISOImageryObjective$addObjectiveOccurance(event)
```

*Arguments:*

event object of class [ISOImageryEvent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delObjectiveOccurance(): Deletes objective occurrence

*Usage:*

```
ISOImageryObjective$delObjectiveOccurance(event)
```

*Arguments:*

event object of class [ISOImageryEvent](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#encoding
md <- ISOImageryObjective$new()
md$setIdentifier("identifier")
md$setPriority("urgent")
md$addType("survey")
md$addFunction("my_function")
evt <- ISOImageryEvent$new()
evt$setIdentifier("event_1")
evt$setTrigger("manual")
evt$setContext("pass")
evt$setSequence("instantaneous")
```

```

evt$setTime(Sys.time())
md$addObjectiveOccurance(evt)
extent <- ISOExtent$new()
bbox <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
extent$addGeographicElement(bbox)
time <- ISOTemporalExtent$new()
start <- ISOdate(2000, 1, 12, 12, 59, 45)
end <- ISOdate(2010, 8, 22, 13, 12, 43)
tp <- GMLTimePeriod$new(beginPosition = start, endPosition = end)
time$setTimePeriod(tp)
extent$addTemporalElement(time)
vert <- ISOVerticalExtent$new()
vert$setMinimumValue(0)
vert$setMaximumValue(19)
extent$addVerticalElement(vert)
md$addExtent(extent)
md$sensingInstrument = NA
md$pass = NA
xml <- md$encode()

```

---

ISOImageryObjectiveType

*ISOImageryObjectiveType*


---

### Description

ISOImageryObjectiveType  
ISOImageryObjectiveType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery ObjectiveType

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOImageryObjectiveType

### Methods

#### Public methods:

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

**Method** new(): Initializes object

*Usage:*

```
ISOImageryObjectiveType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
#possible values
values <- ISOImageryObjectiveType$values(labels = TRUE)

#some def
survey <- ISOImageryObjectiveType$new(value = "survey")
```

---

ISOImageryOperation    *ISOImageryOperation*

---

### Description

ISOImageryOperation

ISOImageryOperation

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery Operation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryOperation

**Public fields**

description description [0..1]: characterISOLocalisedCharacterString  
 citation citation [0..1]: ISOCitation  
 identifier identifier [1..1]: ISOMetaIdentifier  
 status status [1..1]: ISOStatus  
 type type [0..1]: ISOImageryOperationType  
 parentOperation parentOperation [1..1]: ISOImageryOperation  
 childOperation childOperation [0..\*]: ISOImageryOperation  
 platform platform [0..\*]: ISOImageryPlatform  
 objective objective [0..\*]: ISOImageryObjective  
 plan plan [0..1]: ISOImageryPlan  
 significantEvent significantEvent [0..\*]: ISOImageryEvent

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

- [ISOImageryOperation\\$new\(\)](#)
- [ISOImageryOperation\\$setDescription\(\)](#)
- [ISOImageryOperation\\$setCitation\(\)](#)
- [ISOImageryOperation\\$setIdentifier\(\)](#)
- [ISOImageryOperation\\$setStatus\(\)](#)
- [ISOImageryOperation\\$setType\(\)](#)
- [ISOImageryOperation\\$setParentOperation\(\)](#)
- [ISOImageryOperation\\$addChildOperation\(\)](#)
- [ISOImageryOperation\\$delChildOperation\(\)](#)
- [ISOImageryOperation\\$addPlatform\(\)](#)
- [ISOImageryOperation\\$delPlatform\(\)](#)
- [ISOImageryOperation\\$addObjective\(\)](#)
- [ISOImageryOperation\\$delObjective\(\)](#)
- [ISOImageryOperation\\$setPlan\(\)](#)
- [ISOImageryOperation\\$addSignificantEvent\(\)](#)
- [ISOImageryOperation\\$delSignificantEvent\(\)](#)
- [ISOImageryOperation\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryOperation\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setDescription():** Set description

*Usage:*

ISOImageryOperation\$setDescription(description, locales = NULL)

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method setCitation():** Set citation

*Usage:*

ISOImageryOperation\$setCitation(citation)

*Arguments:*

citation object of class [ISOCitation](#)

**Method setIdentifier():** Set identifier

*Usage:*

ISOImageryOperation\$setIdentifier(identifier)

*Arguments:*

identifier object of class [ISOMetaIdentifier](#) or [character](#)

**Method setStatus():** Set status

*Usage:*

ISOImageryOperation\$setStatus(status)

*Arguments:*

status object of class [ISOStatus](#) or any [character](#) among values returned by [ISOStatus\\$values\(\)](#)

**Method setType():** Set type

*Usage:*

ISOImageryOperation\$setType(type)

*Arguments:*

type object of class [ISOImageryOperationType](#) or any [character](#) among values returned by [ISOImageryOperationType\\$values\(\)](#)

**Method setParentOperation():** Set parent operation

*Usage:*

ISOImageryOperation\$setParentOperation(operation)

*Arguments:*

operation object of class [ISOImageryOperation](#)

**Method addChildOperation():** Adds child operation

*Usage:*

ISOImageryOperation\$addChildOperation(operation)



*Arguments:*

operation object of class [ISOImageryOperation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delChildOperation():** Deletes child operation

*Usage:*

ISOImageryOperation\$delChildOperation(operation)

*Arguments:*

operation object of class [ISOImageryOperation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addPlatform():** Adds platform

*Usage:*

ISOImageryOperation\$addPlatform(platform)

*Arguments:*

platform object of class [ISOImageryPlatform](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delPlatform():** Deletes platform

*Usage:*

ISOImageryOperation\$delPlatform(platform)

*Arguments:*

platform object of class [ISOImageryPlatform](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addObjective():** Adds objective

*Usage:*

ISOImageryOperation\$addObjective(objective)

*Arguments:*

objective object of class [ISOImageryObjective](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delObjective():** Deletes objective

*Usage:*

ISOImageryOperation\$delObjective(objective)

*Arguments:*

objective object of class [ISOImageryObjective](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setPlan():** Set plan

*Usage:*

ISOImageryOperation\$setPlan(plan)

*Arguments:*

plan object of class [ISOImageryPlan](#)

**Method** addSignificantEvent(): Adds significant event

*Usage:*

ISOImageryOperation\$addSignificantEvent(event)

*Arguments:*

event object of class [ISOImageryEvent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSignificantEvent(): Deletes significant event

*Usage:*

ISOImageryOperation\$delSignificantEvent(event)

*Arguments:*

event object of class [ISOImageryEvent](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOImageryOperation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

#### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

---

ISOImageryOperationType

*ISOImageryOperationType*

---

#### Description

ISOImageryOperationType

ISOImageryOperationType

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an ISO Imagery Operation type

**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue  
-> ISOImageryOperationType

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

- ISOImageryOperationType\$new()
- ISOImageryOperationType\$clone()

**Method new():** Initializes object

*Usage:*

```
ISOImageryOperationType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class XMLInternalNode-class

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#possible values
values <- ISOImageryOperationType$values(labels = TRUE)

#some def
real <- ISOImageryOperationType$new(value = "real")
```

---

ISOImageryPlan	<i>ISOImageryPlan</i>
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---

**Description**

ISOImageryPlan

ISOImageryPlan

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO imagery Plan**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryPlan**Public fields**

type type [0..1]: ISOImageryGeometryType

status status [1..1]: ISOProgress

citation citation [1..1]: ISOCitation

operation operation [0..\*]: ISOImageryOperation

satisfiedRequirement satisfiedRequirement [0..\*]: ISOImageryRequirement

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

- [ISOImageryPlan\\$new\(\)](#)
- [ISOImageryPlan\\$setType\(\)](#)
- [ISOImageryPlan\\$setStatus\(\)](#)
- [ISOImageryPlan\\$setCitation\(\)](#)
- [ISOImageryPlan\\$addOperation\(\)](#)
- [ISOImageryPlan\\$delOperation\(\)](#)
- [ISOImageryPlan\\$addSatisfiedRequirement\(\)](#)
- [ISOImageryPlan\\$delSatisfiedRequirement\(\)](#)
- [ISOImageryPlan\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object*Usage:*[ISOImageryPlan\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setType():** Set type*Usage:*

ISOImageryPlan\$setType(type)

*Arguments:*

type object of class [ISOImageryGeometryType](#) or any [character](#) among values returned by [ISOImageryGeometryType\\$values\(\)](#)

**Method setStatus():** Set status*Usage:*

ISOImageryPlan\$setStatus(status)

*Arguments:*

status object of class [ISOStatus](#) or any [character](#) among values returned by [ISOStatus\\$values\(\)](#)

**Method setCitation():** Set citation*Usage:*

ISOImageryPlan\$setCitation(citation)

*Arguments:*

citation object of class [ISOCitation](#)

**Method addOperation():** Adds operation*Usage:*

ISOImageryPlan\$addOperation(operation)

*Arguments:*

operation object of class [ISOImageryOperation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delOperation():** Deletes operation*Usage:*

ISOImageryPlan\$delOperation(operation)

*Arguments:*

operation object of class [ISOImageryOperation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addSatisfiedRequirement():** Adds satisfied requirement*Usage:*

ISOImageryPlan\$addSatisfiedRequirement(requirement)

*Arguments:*

requirement object of class [ISOImageryRequirement](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSatisfiedRequirement(): Deletes satisfied requirement

*Usage:*

```
ISOImageryPlan$delSatisfiedRequirement(requirement)
```

*Arguments:*

requirement object of class [ISOImageryRequirement](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
md <- ISOImageryPlan$new()
md$setType("point")
md$setStatus("completed")

#add citation
rp1 <- ISOResponsibleParty$new()
rp1$setIndividualName("someone1")
rp1$setOrganisationName("somewhere1")
rp1$setPositionName("someposition1")
rp1$setRole("pointOfContact")
contact1 <- ISOContact$new()
phone1 <- ISOTelephone$new()
phone1$setVoice("myphonenumber1")
phone1$setFacsimile("myfacsimile1")
contact1$setPhone(phone1)
address1 <- ISOAddress$new()
address1$setDeliveryPoint("theaddress1")
address1$setCity("thecity1")
address1$setPostalCode("111")
address1$setCountry("France")
address1$setEmail("someone1@theorg.org")
contact1$setAddress(address1)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
```

```

contact1$setOnlineResource(res)
rp1$setContactInfo(contact1)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp1)
md$setCitation(ct)
xml <- md$encode()

```

---

ISOImageryPlatform	<i>ISOImageryPlatform</i>
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---

## Description

ISOImageryPlatform  
ISOImageryPlatform

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO imagery platform

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryPlatform

## Public fields

citation citation [0..\*]: ISOCitation  
identifier identifier [1..1]: ISOMetaIdentifier  
description description [0..1]: character|ISOLocalisedCharacterString  
sponsor sponsor [0..\*]: ISOResponsibleParty  
instrument instrument [0..\*]: ISOImageryInstrument

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

- [ISOImageryPlatform\\$new\(\)](#)
- [ISOImageryPlatform\\$addCitation\(\)](#)
- [ISOImageryPlatform\\$delCitation\(\)](#)
- [ISOImageryPlatform\\$setIdentifier\(\)](#)
- [ISOImageryPlatform\\$setDescription\(\)](#)
- [ISOImageryPlatform\\$addSponsor\(\)](#)
- [ISOImageryPlatform\\$delSponsor\(\)](#)
- [ISOImageryPlatform\\$addInstrument\(\)](#)
- [ISOImageryPlatform\\$delInstrument\(\)](#)
- [ISOImageryPlatform\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryPlatform$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `addCitation()`: Adds citation

*Usage:*

```
ISOImageryPlatform$addCitation(citation)
```

*Arguments:*

citation object of class [ISOCitation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delCitation()`: Deletes citation

*Usage:*

```
ISOImageryPlatform$delCitation(citation)
```

*Arguments:*

citation object of class [ISOCitation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** `setIdentifier()`: Set identifier

*Usage:*

```
ISOImageryPlatform$setIdentifier(identifier)
```

*Arguments:*

identifier object of class [ISOMetaIdentifier](#) or [character](#)

**Method** `setDescription()`: Set description

*Usage:*

```
ISOImageryPlatform$setDescription(description, locales = NULL)
```



*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method** addSponsor(): Adds sponsor

*Usage:*

ISOImageryPlatform\$addSponsor(sponsor)

*Arguments:*

sponsor object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSponsor(): Deletes sponsor

*Usage:*

ISOImageryPlatform\$delSponsor(sponsor)

*Arguments:*

sponsor object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addInstrument(): Adds instrument

*Usage:*

ISOImageryPlatform\$addInstrument(instrument)

*Arguments:*

instrument object of class [ISOImageryInstrument](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delInstrument(): Deletes instrument

*Usage:*

ISOImageryPlatform\$delInstrument(instrument)

*Arguments:*

instrument object of class [ISOImageryInstrument](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOImageryPlatform\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

## Examples

```
md <- ISOImageryPlatform$new()

#add citation
rp1 <- ISOResponsibleParty$new()
rp1$setIndividualName("someone1")
rp1$setOrganisationName("somewhere1")
rp1$setPositionName("someposition1")
rp1$setRole("pointOfContact")
contact1 <- ISOContact$new()
phone1 <- ISOTelephone$new()
phone1$setVoice("myphonenumber1")
phone1$setFacsimile("myfacsimile1")
contact1$setPhone(phone1)
address1 <- ISOAddress$new()
address1$setDeliveryPoint("theaddress1")
address1$setCity("thecity1")
address1$setPostalCode("111")
address1$setCountry("France")
address1$setEmail("someone1@theorg.org")
contact1$setAddress(address1)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact1$setOnlineResource(res)
rp1$setContactInfo(contact1)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp1)
md$addCitation(ct)

md$setIdentifier("identifier")
md$setDescription("some description")

xml <- md$encode()
```

---

ISOImageryPlatformPass

*ISOImageryPlatformPass*

---

## Description

ISOImageryPlatformPass

ISOImageryPlatformPass

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO imagery PlatformPass

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryPlatformPass

## Public fields

identifier identifier [1..1]: ISOMetaIdentifier

extent extent [0..1]: ?

relatedEvent relatedEvent [0..\*]: ISOImageryEvent

## Methods

### Public methods:

- [ISOImageryPlatformPass\\$new\(\)](#)
- [ISOImageryPlatformPass\\$setIdentifier\(\)](#)
- [ISOImageryPlatformPass\\$setExtent\(\)](#)
- [ISOImageryPlatformPass\\$addEvent\(\)](#)
- [ISOImageryPlatformPass\\$delEvent\(\)](#)
- [ISOImageryPlatformPass\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryPlatformPass\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setIdentifier\(\)](#): Set identifier

*Usage:*

ISOImageryPlatformPass\$setIdentifier(identifier)

*Arguments:*

identifier object of class [ISOMetaIdentifier](#) or [character](#)

**Method** setExtent(): Set extent*Usage:*

ISOImageryPlatformPass\$setExtent(extent)

*Arguments:*

extent simple feature geometry object from **sf**

**Method** addEvent(): Adds event*Usage:*

ISOImageryPlatformPass\$addEvent(event)

*Arguments:*

event object of class [ISOImageryEvent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delEvent(): Deletes event*Usage:*

ISOImageryPlatformPass\$delEvent(event)

*Arguments:*

event object of class [ISOImageryEvent](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

ISOImageryPlatformPass\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

## Examples

```
md <- ISOImageryPlatformPass$new()
md$setIdentifier("identifier")

require(sf)
outer = matrix(c(0,0,10,0,10,10,0,10,0,0),ncol=2, byrow=TRUE)
hole1 = matrix(c(1,1,1,2,2,2,2,1,1,1),ncol=2, byrow=TRUE)
hole2 = matrix(c(5,5,5,6,6,6,6,5,5,5),ncol=2, byrow=TRUE)
pts = list(outer, hole1, hole2)
pl = st_polygon(pts)
md$setExtent(pl)

xml <- md$encode()
```

---

ISOImageryPolarisationOrientation

*ISOImageryPolarisationOrientation*

---

## Description

ISOImageryPolarisationOrientation

ISOImageryPolarisationOrientation

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO Imagery Polarisation orientation

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOImageryPolarisationOrientation

## Methods

### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryPolarisationOrientation$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 value value  
 description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
#possible values
values <- ISOImageryPolarisationOrientation$values(labels = TRUE)

#some def
h <- ISOImageryPolarisationOrientation$new(value = "horizontal")
```

---

ISOImageryPriority      *ISOImageryPriority*

---

### Description

ISOImageryPriority  
 ISOImageryPriority

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery priority

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue  

-> ISOImageryPriority
```

## Methods

### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryPriority$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

## References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

## Examples

```
#possible values
values <- ISOImageryPriority$values(labels = TRUE)

#some def
highImp <- ISOImageryPriority$new(value = "highImportance")
```

---

ISOImageryProcessing *ISOImageryProcessing*

---

### Description

ISOImageryProcessing

ISOImageryProcessing

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery processing

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryProcessing

### Public fields

identifier identifier [1..1]: ISOMetaIdentifier

softwareReference softwareReference [0..1]: ISOCitation

procedureDescription procedureDescription [0..1]: character|ISOLocalisedCharacterString

documentation documentation [0..\*]: ISOCitation

runTimeParameters runTimeParameters [0..1]: character

algorithm algorithm [0..\*]: ISOImageryAlgorithm

### Methods

#### Public methods:

- [ISOImageryProcessing\\$new\(\)](#)
- [ISOImageryProcessing\\$setIdentifier\(\)](#)
- [ISOImageryProcessing\\$addSoftwareReference\(\)](#)
- [ISOImageryProcessing\\$delSoftwareReference\(\)](#)
- [ISOImageryProcessing\\$setProcedureDescription\(\)](#)
- [ISOImageryProcessing\\$addDocumentation\(\)](#)
- [ISOImageryProcessing\\$delDocumentation\(\)](#)
- [ISOImageryProcessing\\$setRunTimeParameters\(\)](#)
- [ISOImageryProcessing\\$addAlgorithm\(\)](#)
- [ISOImageryProcessing\\$delAlgorithm\(\)](#)
- [ISOImageryProcessing\\$clone\(\)](#)



**Method new():** Initializes object

*Usage:*

```
ISOImageryProcessing$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setIdentifier():** Set identifier

*Usage:*

```
ISOImageryProcessing$setIdentifier(identifier)
```

*Arguments:*

identifier object of class [ISOMetaIdentifier](#) or [character](#)

**Method addSoftwareReference():** Adds software reference

*Usage:*

```
ISOImageryProcessing$addSoftwareReference(softwareReference)
```

*Arguments:*

softwareReference object of class [ISOCitation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delSoftwareReference():** Deletes software reference

*Usage:*

```
ISOImageryProcessing$delSoftwareReference(softwareReference)
```

*Arguments:*

softwareReference object of class [ISOCitation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setProcedureDescription():** Set procedure description

*Usage:*

```
ISOImageryProcessing$setProcedureDescription(  
  procedureDescription,  
  locales = NULL  
)
```

*Arguments:*

procedureDescription procedure description

locales list of localized texts. Default is NULL

**Method addDocumentation():** Adds documentation

*Usage:*

```
ISOImageryProcessing$addDocumentation(documentation)
```

*Arguments:*

documentation object of class [ISOCitation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delDocumentation():** Deletes documentation

*Usage:*

ISOImageryProcessing\$delDocumentation(documentation)

*Arguments:*

documentation object of class [ISOCitation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setRunTimeParameters():** Set runtime parameters

*Usage:*

ISOImageryProcessing\$setRunTimeParameters(params)

*Arguments:*

params parameters

**Method addAlgorithm():** Adds algorithm

*Usage:*

ISOImageryProcessing\$addAlgorithm(algorithm)

*Arguments:*

algorithm object of class [ISOImageryAlgorithm](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delAlgorithm():** Deletes algorithm

*Usage:*

ISOImageryProcessing\$delAlgorithm(algorithm)

*Arguments:*

algorithm object of class [ISOImageryAlgorithm](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOImageryProcessing\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```

md <- ISOImageryProcessing$new()

#add citation
rp1 <- ISOResponsibleParty$new()
rp1$setIndividualName("someone1")
rp1$setOrganisationName("somewhere1")
rp1$setPositionName("someposition1")
rp1$setRole("pointOfContact")
contact1 <- ISOContact$new()
phone1 <- ISOTelephone$new()
phone1$setVoice("myphonenumber1")
phone1$setFacsimile("myfacsimile1")
contact1$setPhone(phone1)
address1 <- ISOAddress$new()
address1$setDeliveryPoint("theaddress1")
address1$setCity("thecity1")
address1$setPostalCode("111")
address1$setCountry("France")
address1$setEmail("someone1@theorg.org")
contact1$setAddress(address1)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact1$setOnlineResource(res)
rp1$setContactInfo(contact1)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp1)

md$setIdentifier("identifier")
md$setProcedureDescription("some description")
md$addSoftwareReference(ct)
md$addDocumentation(ct)
md$setRunTimeParameters("params")

xml <- md$encode()

```

**Description**

ISOImageryProcessStep  
 ISOImageryProcessStep

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery process step

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOProcessStep](#) ->  
 ISOImageryProcessStep

**Public fields**

processingInformation processingInformation [0..1]: ISOImageryProcessing  
 output output [0..\*]: list of ISOImagerySource  
 report report [0..\*]: list of ISOImageryProcessStepReport

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

- [ISOImageryProcessStep\\$new\(\)](#)
- [ISOImageryProcessStep\\$setProcessingInformation\(\)](#)
- [ISOImageryProcessStep\\$addOutput\(\)](#)
- [ISOImageryProcessStep\\$delOutput\(\)](#)
- [ISOImageryProcessStep\\$addReport\(\)](#)
- [ISOImageryProcessStep\\$delReport\(\)](#)
- [ISOImageryProcessStep\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryProcessStep\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setProcessingInformation\(\)](#): Set processing info

*Usage:*

[ISOImageryProcessStep\\$setProcessingInformation\(processingInfo\)](#)

*Arguments:*

processingInfo object of class [ISOImageryProcessing](#)

**Method** addOutput(): Adds output

*Usage:*

ISOImageryProcessStep\$addOutput(output)

*Arguments:*

output object of class [ISOImagerySource](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delOutput(): Deletes output

*Usage:*

ISOImageryProcessStep\$delOutput(output)

*Arguments:*

output object of class [ISOImagerySource](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addReport(): Adds report

*Usage:*

ISOImageryProcessStep\$addReport(report)

*Arguments:*

report object of class [ISOImageryProcessStepReport](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delReport(): Deletes report

*Usage:*

ISOImageryProcessStep\$delReport(report)

*Arguments:*

report object of class [ISOImageryProcessStepReport](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOImageryProcessStep\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```

ps <- ISOImageryProcessStep$new()
ps$setDescription("description")
ps$setRationale("rationale")
ps$setDateTime(ISOdate(2015, 1, 1, 23, 59, 59))
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone") #and more responsible party properties..
ps$addProcessor(rp)

#specific methods to ISO 19115-2
process <- ISOImageryProcessing$new()

#add citation
rp1 <- ISOResponsibleParty$new()
rp1$setIndividualName("someone1")
rp1$setOrganisationName("somewhere1")
rp1$setPositionName("someposition1")
rp1$setRole("pointOfContact")
contact1 <- ISOContact$new()
phone1 <- ISOTelephone$new()
phone1$setVoice("myphonenumber1")
phone1$setFacsimile("myfacsimile1")
contact1$setPhone(phone1)
address1 <- ISOAddress$new()
address1$setDeliveryPoint("theaddress1")
address1$setCity("thecity1")
address1$setPostalCode("111")
address1$setCountry("France")
address1$setEmail("someone1@theorg.org")
contact1$setAddress(address1)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact1$setOnlineResource(res)
rp1$setContactInfo(contact1)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp1)

process$setIdentifier("identifier")
process$setProcedureDescription("some description")
process$addSoftwareReference(ct)

```

```

process$addDocumentation(ct)
process$setRunTimeParameters("params")
ps$setProcessingInformation(process)

#output
trg <- ISOImagerySource$new()
trg$setProcessedLevel("level")
res <- ISOImageryNominalResolution$new()
d <- ISODistance$new(value = 1, uom = "m", useUomURI = TRUE)
res$setScanningResolution(d)
trg$setResolution(res)
ps$addOutput(trg)

#report
rep <- ISOImageryProcessStepReport$new()
rep$setName("report")
rep$setDescription("description")
rep$setFileType("filetype")
ps$addReport(rep)

xml <- ps$encode()

```

---

ISOImageryProcessStepReport  
*ISOImageryProcessStepReport*

---

## Description

ISOImageryProcessStepReport  
ISOImageryProcessStepReport

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO imagery ProcessStepReport

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryProcessStepReport

## Public fields

name name [1..1]: character|ISOLocalisedCharacterString  
description description [0..1]: character|ISOLocalisedCharacterString  
fileType fileType [0..1]: character|ISOLocalisedCharacterString

## Methods

### Public methods:

- [ISOImageryProcessStepReport\\$new\(\)](#)
- [ISOImageryProcessStepReport\\$setName\(\)](#)
- [ISOImageryProcessStepReport\\$setDescription\(\)](#)
- [ISOImageryProcessStepReport\\$setFileType\(\)](#)
- [ISOImageryProcessStepReport\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryProcessStepReport$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setName()`: Set name

*Usage:*

```
ISOImageryProcessStepReport$setName(name, locales = NULL)
```

*Arguments:*

name name

locales list of localized texts. Default is NULL

**Method** `setDescription()`: Set description

*Usage:*

```
ISOImageryProcessStepReport$setDescription(description, locales = NULL)
```

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method** `setFileType()`: Set file type

*Usage:*

```
ISOImageryProcessStepReport$setFileType(fileType, locales = NULL)
```

*Arguments:*

fileType file type

locales list of localized texts. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.



**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
md <- ISOImageryProcessStepReport$new()
md$setName("my_report")
md$setDescription("description")
md$setFileType("md")
xml <- md$encode()
```

---

ISOImageryRangeElementDescription

*ISOImageryRangeElementDescription*

---

**Description**

ISOImageryRangeElementDescription

ISOImageryRangeElementDescription

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOImageryRangeElementDescription

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryRangeElementDescription

**Public fields**

name name [0..1] : character

definition definition [0..1] : character

rangeElement rangeElement [0..\*] : ISORRecord

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

- [ISOImageryRangeElementDescription\\$new\(\)](#)
- [ISOImageryRangeElementDescription\\$setName\(\)](#)
- [ISOImageryRangeElementDescription\\$setDefinition\(\)](#)
- [ISOImageryRangeElementDescription\\$addRangeElement\(\)](#)
- [ISOImageryRangeElementDescription\\$delRangeElement\(\)](#)
- [ISOImageryRangeElementDescription\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOImageryRangeElementDescription$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setName()`: Set name

*Usage:*

`ISOImageryRangeElementDescription$setName(name, locales = NULL)`

*Arguments:*

`name` name

`locales` list of localized texts. Default is NULL

**Method** `setDefinition()`: Set definition

*Usage:*

`ISOImageryRangeElementDescription$setDefinition(definition, locales = NULL)`

*Arguments:*

`definition` definition

`locales` list of localized texts. Default is NULL

**Method** `addRangeElement()`: Adds range element

*Usage:*

`ISOImageryRangeElementDescription$addRangeElement(record)`

*Arguments:*

`record` object of class [ISORecord](#) or [character](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delRangeElement()`: Deletes range element

*Usage:*

`ISOImageryRangeElementDescription$delRangeElement(record)`

*Arguments:*

`record` object of class [ISORecord](#) or [character](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
#create object
md <- ISOImageryRangeElementDescription$new()
md$setName("name")
md$setDefinition("description")
md$addRangeElement("record1")
md$addRangeElement("record2")
xml <- md$encode()
```

---

ISOImageryRequestedDate

*ISOImageryRequestedDate*

---

### Description

ISOImageryRequestedDate

ISOImageryRequestedDate

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery requested date

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryRequestedDate

**Public fields**

requestedDateOfCollection requestedDateOfCollection  
latestAcceptableDate latestAcceptableDate

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

- [ISOImageryRequestedDate\\$new\(\)](#)
- [ISOImageryRequestedDate\\$setRequestedDateOfCollection\(\)](#)
- [ISOImageryRequestedDate\\$setLatestAcceptableDate\(\)](#)
- [ISOImageryRequestedDate\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOImageryRequestedDate$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setRequestedDateOfCollection()`: Set requested date of collection

*Usage:*

`ISOImageryRequestedDate$setRequestedDateOfCollection(date)`

*Arguments:*

`date` object of class [POSIXct](#)

**Method** `setLatestAcceptableDate()`: Set latest acceptable date

*Usage:*

`ISOImageryRequestedDate$setLatestAcceptableDate(date)`

*Arguments:*

`date` object of class [POSIXct](#)

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

*Usage:*

`ISOImageryRequestedDate$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#create band range dimension
md <- ISOImageryRequestedDate$new()
md$setRequestedDateOfCollection(Sys.time())
md$setLatestAcceptableDate(Sys.time())
xml <- md$encode()
```

---

ISOImageryRequirement *ISOImageryRequirement*

---

**Description**

ISOImageryRequirement

ISOImageryRequirement

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery requirement

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImageryRequirement

**Public fields**

citation citation [1..1]: ISOCitation

identifier identifier [1..1]: ISOMetaIdentifier

requestor requestor [0..\*]: ISOResponsibleParty

recipient recipient [0..\*]: ISOResponsibleParty

priority priority [1..1]: ISOImageryPriority

requestedDate requestedDate [1..1]: ISOImageryRequestedDate

expiryDate expiryDate [1..1]: POSIXt

satisfiedPlan satisfiedPlan [0..\*]: ISOImageryPlan

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

- [ISOImageryRequirement\\$new\(\)](#)
- [ISOImageryRequirement\\$setCitation\(\)](#)
- [ISOImageryRequirement\\$setIdentifier\(\)](#)
- [ISOImageryRequirement\\$addRequestor\(\)](#)
- [ISOImageryRequirement\\$delRequestor\(\)](#)
- [ISOImageryRequirement\\$addRecipient\(\)](#)
- [ISOImageryRequirement\\$delRecipient\(\)](#)
- [ISOImageryRequirement\\$setPriority\(\)](#)
- [ISOImageryRequirement\\$setRequestedDate\(\)](#)
- [ISOImageryRequirement\\$setExpiryDate\(\)](#)
- [ISOImageryRequirement\\$addSatisfiedPlan\(\)](#)
- [ISOImageryRequirement\\$delSatisfiedPlan\(\)](#)
- [ISOImageryRequirement\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOImageryRequirement$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setCitation\(\)](#): Set citation

*Usage:*

`ISOImageryRequirement$setCitation(citation)`

*Arguments:*

citation object of class [ISOCitation](#)

**Method** [setIdentifier\(\)](#): Set identifier

*Usage:*

`ISOImageryRequirement$setIdentifier(identifier)`

*Arguments:*

identifier object of class [ISOMetaIdentifier](#) or [character](#)

**Method** [addRequestor\(\)](#): Adds requestor

*Usage:*

`ISOImageryRequirement$addRequestor(requestor)`

*Arguments:*

requestor object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delRequestor\(\)](#): Deletes requestor

*Usage:*

ISOImageryRequirement\$delRequestor(requestor)

*Arguments:*

requestor object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addRecipient():** Adds recipient*Usage:*

ISOImageryRequirement\$addRecipient(recipient)

*Arguments:*

recipient object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delRecipient():** Deletes recipient*Usage:*

ISOImageryRequirement\$delRecipient(recipient)

*Arguments:*

recipient object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setPriority():** Set priority*Usage:*

ISOImageryRequirement\$setPriority(priority)

*Arguments:*

priority object of class [ISOImageryPriority](#) or any [character](#) among values returned by [ISOImageryPriority\\$values](#)

**Method setRequestedDate():** Set requested date*Usage:*

ISOImageryRequirement\$setRequestedDate(date)

*Arguments:*

date object of class [ISOImageryRequestedDate](#)

**Method setExpiryDate():** Set expiry date*Usage:*

ISOImageryRequirement\$setExpiryDate(date)

*Arguments:*

date object of class [POSIXct](#)

**Method addSatisfiedPlan():** Adds satisfied plan*Usage:*

ISOImageryRequirement\$addSatisfiedPlan(plan)

*Arguments:*

plan object of class [ISOImageryPlan](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSatisfiedPlan(): Deletes satisfied plan

*Usage:*

```
ISOImageryRequirement$delSatisfiedPlan(plan)
```

*Arguments:*

plan object of class [ISOImageryPlan](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
md <- ISOImageryRequirement$new()
md$setIdentifier("identifier")
#add citation
rp1 <- ISOResponsibleParty$new()
rp1$setIndividualName("someone1")
rp1$setOrganisationName("somewhere1")
rp1$setPositionName("someposition1")
rp1$setRole("pointOfContact")
contact1 <- ISOContact$new()
phone1 <- ISOTelephone$new()
phone1$setVoice("myphonenumber1")
phone1$setFacsimile("myfacsimile1")
contact1$setPhone(phone1)
address1 <- ISOAddress$new()
address1$setDeliveryPoint("theaddress1")
address1$setCity("thecity1")
address1$setPostalCode("111")
address1$setCountry("France")
address1$setEmail("someone1@theorg.org")
contact1$setAddress(address1)
res <- ISOOnlineResource$new()
```



```

res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact1$setOnlineResource(res)
rp2 <- ISOResponsibleParty$new()
rp2$setIndividualName("someone2")
rp2$setOrganisationName("somewhere2")
rp2$setPositionName("someposition2")
rp2$setRole("pointOfContact")
contact2 <- ISOContact$new()
phone2 <- ISOTelephone$new()
phone2$setVoice("myphonenumber2")
phone2$setFacsimile("myfacsimile2")
contact1$setPhone(phone2)
address2 <- ISOAddress$new()
address2$setDeliveryPoint("theaddress2")
address2$setCity("thecity2")
address2$setPostalCode("111")
address2$setCountry("France")
address2$setEmail("someone2@theorg.org")
contact2$setAddress(address2)
contact2$setOnlineResource(res)
rp2$setContactInfo(contact2)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp1)
md$setCitation(ct)
md$addRequestor(rp1)
md$addRecipient(rp2)
md$setPriority("highImportance")

rd <- ISOImageryRequestedDate$new()
rd$setRequestedDateOfCollection(Sys.time())
rd$setLatestAcceptableDate(Sys.time())
md$setRequestedDate(rd)
md$setExpiryDate(Sys.time())
xml <- md$encode()

```

**Description**

ISOImagerySensorType  
ISOImagerySensorType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery sensor type

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImagerySensorType

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImagerySensorType$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
md <- ISOImagerySensorType$new()
```

---

ISOImagerySequence     *ISOImagerySequence*

---

**Description**

ISOImagerySequence

ISOImagerySequence

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery sequence

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOImagerySequence

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImagerySequence$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#possible values
values <- ISOImagerySequence$values(labels = TRUE)

#some def
inst <- ISOImagerySequence$new(value = "instantaneous")
```

---

ISOImagerySource	<i>ISOImagerySource</i>
------------------	-------------------------

---

**Description**

ISOImagerySource  
ISOImagerySource

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery source

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOImagerySource

**Public fields**

processedLevel processedLevel [0..1]: ISOMetaIdentifier  
resolution resolution [0..1]: ISOImageryNominalResolution

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

- [ISOImagerySource\\$new\(\)](#)
- [ISOImagerySource\\$setProcessedLevel\(\)](#)
- [ISOImagerySource\\$setResolution\(\)](#)
- [ISOImagerySource\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISOImagerySource$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setProcessedLevel()`: Set processed level

*Usage:*

```
ISOImagerySource$setProcessedLevel(processedLevel)
```

*Arguments:*

processedLevel object of class [ISOMetaIdentifier](#) or [character](#)

**Method** `setResolution()`: Set resolution

*Usage:*

```
ISOImagerySource$setResolution(resolution)
```

*Arguments:*

resolution object of class [ISOImageryNominalResolution](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
md <- ISOImagerySource$new()
md$setProcessedLevel("identifier")
res <- ISOImageryNominalResolution$new()
d <- ISODistance$new(value = 1, uom = "m", useUomURI = TRUE)
res$setScanningResolution(d)
md$setResolution(res)

xml <- md$encode()
```

---

ISOImageryTransferFunctionType  
*ISOImageryTransferFunctionType*

---

### Description

ISOImageryTransferFunctionType  
ISOImageryTransferFunctionType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery transfer function type

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOImageryTransferFunctionType

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryTransferFunctionType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

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

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

**Examples**

```
#possible values
values <- ISOImageryTransferFunctionType$values(labels = TRUE)

#some def
log <- ISOImageryTransferFunctionType$new(value = "logarithmic")
```

---

ISOImageryTrigger	<i>ISOImageryTrigger</i>
-------------------	--------------------------

---

**Description**

ISOImageryTrigger

ISOImageryTrigger

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO imagery trigger

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue
-> ISOImageryTrigger
```

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOImageryTrigger$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

### Examples

```
#possible values
values <- ISOImageryTrigger$values(labels = TRUE)

#some def
auto <- ISOImageryTrigger$new(value = "automatic")
```

---

ISOImageryUsability    *ISOImageryUsability*

---

### Description

ISOImageryUsability

ISOImageryUsability

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO imagery usability

### Methods inherited from [ISODataQualityAbstractElement](#)

See methods description at [ISODataQualityAbstractElement](#)



**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [ISOImageryUsability](#)

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOImageryUsability\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

[ISOImageryUsability\\$clone\(deep = FALSE\)](#)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115-2:2009 - Geographic information – Metadata Part 2: Extensions for imagery and gridded data

---

ISOImagingCondition    *ISOImagingCondition*

---

**Description**

ISOImagingCondition

ISOImagingCondition

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOImagingCondition

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue
-> ISOImagingCondition
```

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

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

**Method new():** Initializes object

*Usage:*

```
ISOImagingCondition$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOImagingCondition$values(labels = TRUE)

#ImagingCondition
ImagingCondition <- ISOImagingCondition$new(value = "rain")
```

---

ISOInheritanceRelation

*ISOInheritanceRelation*

---

### Description

ISOInheritanceRelation

ISOInheritanceRelation

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOInheritanceRelation

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOInheritanceRelation

### Public fields

name name [0..1]: character

description description [0..1]: character

uniqueInstance uniqueInstance: logical

subtype subtype [1..1]: ISOFeatureType

supertype supertype [1..1]: ISOFeatureType

### Methods

#### Public methods:

- [ISOInheritanceRelation\\$setName\(\)](#)
- [ISOInheritanceRelation\\$setDescription\(\)](#)
- [ISOInheritanceRelation\\$setUniqueInstance\(\)](#)
- [ISOInheritanceRelation\\$setSubtype\(\)](#)
- [ISOInheritanceRelation\\$setSupertype\(\)](#)
- [ISOInheritanceRelation\\$clone\(\)](#)

**Method** setName(): Set name

*Usage:*

ISOInheritanceRelation\$setName(name, locales = NULL)

*Arguments:*

name name

locales list of localized texts. Default is NULL

**Method** setDescription(): Set description

*Usage:*

ISOInheritanceRelation\$setDescription(description, locales = NULL)

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method** setUniqueInstance(): Set unique instance

*Usage:*

ISOInheritanceRelation\$setUniqueInstance(uniqueInstance)

*Arguments:*

uniqueInstance object of class [logical](#)

**Method** setSubtype(): Set sub feature type

*Usage:*

ISOInheritanceRelation\$setSubtype(featureType)

*Arguments:*

featureType object of class [ISOFeatureType](#)

**Method** setSupertype(): Set super feature type

*Usage:*

ISOInheritanceRelation\$setSupertype(featureType)

*Arguments:*

featureType object of class [ISOFeatureType](#)

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

*Usage:*

ISOInheritanceRelation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOInitiative

*ISOInitiative*

---

### Description

ISOInitiative

ISOInitiative

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOInitiative

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractAggregate](#)  
-> ISOInitiative

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

`ISOInitiative$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

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

*Usage:*

`ISOInitiative$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

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

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOInitiativeType      *ISOInitiativeType*

---

**Description**

ISOInitiativeType

ISOInitiativeType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO InitiativeType

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOInitiativeType

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOInitiativeType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOInitiativeType$values(labels = TRUE)

#geomOnly
geomOnly <- ISOInitiativeType$new(value = "campaign")
```

---

ISOKeywords

*ISOKeywords*

---

**Description**

ISOKeywords

ISOKeywords

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling a ISO set of keywords

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOKeywords

**Public fields**

keyword keyword

type type

thesaurusName thesaurus name

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

- [ISOKeywords\\$new\(\)](#)
- [ISOKeywords\\$addKeyword\(\)](#)
- [ISOKeywords\\$delKeyword\(\)](#)
- [ISOKeywords\\$setKeywordType\(\)](#)
- [ISOKeywords\\$setThesaurusName\(\)](#)

- [ISOKeywords\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISOKeywords$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method addKeyword():** Adds keyword

*Usage:*

```
ISOKeywords$addKeyword(keyword, locales = NULL)
```

*Arguments:*

keyword keyword

locales list of localized texts. Default is NULL

*Returns:* TRUE if added, FALSE otherwise

**Method delKeyword():** Deletes keyword

*Usage:*

```
ISOKeywords$delKeyword(keyword, locales = NULL)
```

*Arguments:*

keyword keyword

locales list of localized texts. Default is NULL

*Returns:* TRUE if deleted, FALSE otherwise

**Method setKeywordType():** Set keyword type

*Usage:*

```
ISOKeywords$setKeywordType(keywordType)
```

*Arguments:*

keywordType object of class [ISOKeywordType](#) or any [character](#) among values returned by [ISOKeywordType\\$values\(\)](#)

**Method setThesaurusName():** Set thesaurus name

*Usage:*

```
ISOKeywords$setThesaurusName(thesaurusName)
```

*Arguments:*

thesaurusName object of class [ISOCitation](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.



**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#a basic keyword set
md <- ISOKeywords$new()
md$addKeyword("keyword1")
md$addKeyword("keyword2")
md$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle("General")
md$setThesaurusName(th)
xml <- md$encode()

#a keyword set with anchors
md <- ISOKeywords$new()
kwd1 <- ISOAnchor$new(
  name = "keyword1",
  href = "http://myvocabulary.geometa/keyword1"
)
md$addKeyword(kwd1)
kwd2 <- ISOAnchor$new(
  name = "keyword2",
  href = "http://myvocabulary.geometa/keyword2"
)
md$addKeyword(kwd2)
md$setKeywordType("theme")
xml <- md$encode()

#Example for INSPIRE (GEMET Spatial Data Theme)
inspire_kwd <- ISOKeywords$new()
anc1 <- ISOAnchor$new(
  name = "Environmental monitoring facilities",
  href = "http://inspire.ec.europa.eu/theme/ef"
)
inspire_kwd$addKeyword(anc1)
inspire_kwd$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle(
  ISOAnchor$new(
    name = "GEMET - INSPIRE themes, version 1.0",
    href="http://www.eionet.europa.eu/gemet/inspire_themes"
  )
)
inspire_date <- ISODate$new()
inspire_date$setDate(as.Date("2008-06-01"))
inspire_date$setDateType("publication")
```

```
th$addDate(inspire_date)
inspire_kwd$setThesaurusName(th)
```

---

ISOKeywordType	<i>ISOKeywordType</i>
----------------	-----------------------

---

### Description

ISOKeywordType

ISOKeywordType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO KeywordType

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOKeywordType

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOKeywordType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOKeywordType$values(labels = TRUE)

#place keywordType
place <- ISOKeywordType$new(value = "place")
```

---

ISOLanguage

*ISOLanguage*

---

**Description**

ISOLanguage

ISOLanguage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Language

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue
-> ISOLanguage
```

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOLanguage$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 value value  
 description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
#possible values
values <- ISOLanguage$values(labels = TRUE)

#english language
eng <- ISOLanguage$new(value = "eng")
```

---

ISOLegalConstraints    *ISOLegalConstraints*

---

### Description

ISOLegalConstraints

ISOLegalConstraints

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO LegalConstraints

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOConstraints ->
ISOLegalConstraints
```

**Public fields**

accessConstraints accessConstraints [0..\*]: ISORestriction  
useConstraints useConstraints [0..\*]: ISORestriction  
otherConstraints otherConstraints [0..\*]: character

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

- [ISOLegalConstraints\\$new\(\)](#)
- [ISOLegalConstraints\\$addAccessConstraint\(\)](#)
- [ISOLegalConstraints\\$delAccessConstraint\(\)](#)
- [ISOLegalConstraints\\$addUseConstraint\(\)](#)
- [ISOLegalConstraints\\$delUseConstraint\(\)](#)
- [ISOLegalConstraints\\$addOtherConstraint\(\)](#)
- [ISOLegalConstraints\\$delOtherConstraint\(\)](#)
- [ISOLegalConstraints\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOLegalConstraints$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addAccessConstraint\(\)](#): Adds access constraint

*Usage:*

`ISOLegalConstraints$addAccessConstraint(constraint)`

*Arguments:*

constraint object of class [ISORestriction](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delAccessConstraint\(\)](#): Deletes access constraint

*Usage:*

`ISOLegalConstraints$delAccessConstraint(constraint)`

*Arguments:*

constraint object of class [ISORestriction](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** [addUseConstraint\(\)](#): Adds use constraint

*Usage:*

`ISOLegalConstraints$addUseConstraint(constraint)`

*Arguments:*

constraint object of class [ISORestriction](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delUseConstraint(): Deletes use constraint

*Usage:*

ISOLegalConstraints\$delUseConstraint(constraint)

*Arguments:*

constraint object of class [ISORestriction](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addOtherConstraint(): Adds other constraint

*Usage:*

ISOLegalConstraints\$addOtherConstraint(constraint, locales = NULL)

*Arguments:*

constraint object of class [character](#)

locales list of localized names. Default is NULL

*Returns:* TRUE if added, FALSE otherwise

**Method** delOtherConstraint(): Deletes other constraint

*Usage:*

ISOLegalConstraints\$delOtherConstraint(constraint, locales = NULL)

*Arguments:*

constraint object of class [character](#)

locales list of localized names. Default is NULL

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOLegalConstraints\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create object
md <- ISOLegalConstraints$new()
md$addUseLimitation("limitation1")
md$addUseLimitation("limitation2")
md$addUseLimitation("limitation3")
md$addAccessConstraint("copyright")
md$addAccessConstraint("license")
md$addUseConstraint("copyright")
md$addUseConstraint("license")

xml <- md$encode()
```

ISOLength

*ISOLength***Description**

ISOLength

ISOLength

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO Length measure**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOMeasure](#) -> ISOLength**Methods****Public methods:**

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

**Method** `new()`: Initializes object*Usage:*`ISOLength$new(xml = NULL, value, uom, useUomURI = FALSE)`*Arguments:*xml object of class [XMLInternalNode-class](#)

value value

uom uom symbol of unit of measure used  
 useUomURI use uom URI. Default is FALSE

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

*Usage:*

ISOLength\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOLineage

*ISOLineage*

---

### Description

ISOLineage

ISOLineage

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Lineage

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOLineage

### Public fields

statement statement [0..1]: character

processStep processStep [0..\*]: ISOProcessStep

source source [0..\*]: ISOSource



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

- [ISOLineage\\$new\(\)](#)
- [ISOLineage\\$setStatement\(\)](#)
- [ISOLineage\\$addProcessStep\(\)](#)
- [ISOLineage\\$delProcessStep\(\)](#)
- [ISOLineage\\$addSource\(\)](#)
- [ISOLineage\\$delSource\(\)](#)
- [ISOLineage\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOLineage$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setStatement()`: Set statement

*Usage:*

```
ISOLineage$setStatement(statement, locales = NULL)
```

*Arguments:*

statement statement

locales list of localized texts. Default is NULL

**Method** `addProcessStep()`: Adds process step

*Usage:*

```
ISOLineage$addProcessStep(processStep)
```

*Arguments:*

processStep object of class [ISOProcessStep](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delProcessStep()`: Deletes process step

*Usage:*

```
ISOLineage$delProcessStep(processStep)
```

*Arguments:*

processStep object of class [ISOProcessStep](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** `addSource()`: Adds source

*Usage:*

```
ISOLineage$addSource(source)
```

*Arguments:*

source object of class [ISOSource](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delSource():** Deletes source

*Usage:*

```
ISOLineage$delSource(source)
```

*Arguments:*

source object of class [ISOSource](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
lineage <- ISOLineage$new()
lineage$setStatement("statement")

#add a process step
ps <- ISOProcessStep$new()
ps$setDescription("description")
ps$setRationale("rationale")
ps$setDateTime(ISOdate(2015, 1, 1, 23, 59, 59))
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone") #and more responsible party properties..
ps$addProcessor(rp)
lineage$addProcessStep(ps)

#add a source
src <- ISOSource$new()
src$setDescription("description")
src$setScaleDenominator(1L)
rs <- ISOReferenceSystem$new()
rsId <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")
rs$setReferenceSystemIdentifier(rsId)
src$setReferenceSystem(rs)
cit <- ISOCitation$new()
cit$setTitle("sometitle") #and more citation properties...
```

```

src$setCitation(cit)
extent <- ISOExtent$new()
bbox <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
extent$addGeographicElement(bbox)
src$addExtent(extent)
lineage$addSource(src)

xml <- lineage$encode()

```

---

ISOListedValue

*ISOListedValue*


---

### Description

ISOListedValue

ISOListedValue

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOListedValue

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOListedValue

### Public fields

label label: character

code code [0..1]: character

definition definition [0..1]: character

definitionReference definitionReference [0..1]: ISODefinitionReference

### Methods

#### Public methods:

- [ISOListedValue\\$new\(\)](#)
- [ISOListedValue\\$setLabel\(\)](#)
- [ISOListedValue\\$setCode\(\)](#)
- [ISOListedValue\\$setDefinition\(\)](#)
- [ISOListedValue\\$setDefinitionReference\(\)](#)
- [ISOListedValue\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

```
ISOListedValue$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setLabel(): Set label

*Usage:*

```
ISOListedValue$setLabel(label, locales = NULL)
```

*Arguments:*

label label

locales list of localized texts. Default is NULL

**Method** setCode(): Set code

*Usage:*

```
ISOListedValue$setCode(code, locales = NULL)
```

*Arguments:*

code code

locales list of localized texts. Default is NULL

**Method** setDefinition(): Set definition

*Usage:*

```
ISOListedValue$setDefinition(definition, locales = NULL)
```

*Arguments:*

definition definition

locales list of localized texts. Default is NULL

**Method** setDefinitionReference(): Set definition reference

*Usage:*

```
ISOListedValue$setDefinitionReference(definitionReference)
```

*Arguments:*

definitionReference object of class [ISODefinitionReference](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

**Examples**

```
val <- ISOListedValue$new()
val$setCode("code1")
val$setLabel("label1")
val$setDefinition("definition1")
xml <- val$encode()
```

---

ISOLocale

*ISOLocale*


---

**Description**

ISOLocale

ISOLocale

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Locale

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOLocale

**Public fields**

languageCode languageCode [1..1]: ISOLanguage

country country [0..1]: ISOCountry

characterEncoding characterEncoding [1..1]: ISOCharacterSet

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

- [ISOLocale\\$new\(\)](#)
- [ISOLocale\\$setId\(\)](#)
- [ISOLocale\\$setLanguage\(\)](#)
- [ISOLocale\\$setCountry\(\)](#)
- [ISOLocale\\$setCharacterSet\(\)](#)

- [ISOLocale\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISOLocale$new(
  xml = NULL,
  id = NULL,
  language = NULL,
  country = NULL,
  encoding = NULL
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 id id  
 language language  
 country country  
 encoding encoding

**Method setId():** Set ID

*Usage:*

```
ISOLocale$setId(id)
```

*Arguments:*

id id

**Method setLanguage():** Set language

*Usage:*

```
ISOLocale$setLanguage(language)
```

*Arguments:*

language object of class [ISOLanguage](#) or any [character](#) among values returned by [ISOLanguage\\$values\(\)](#)

**Method setCountry():** Set country

*Usage:*

```
ISOLocale$setCountry(country)
```

*Arguments:*

country object of class [ISOCountry](#) or any [character](#) among values returned by [ISOCountry\\$values\(\)](#)  
 or any other ISO-2 country code

**Method setCharacterSet():** Set character set

*Usage:*

```
ISOLocale$setCharacterSet(charset)
```

*Arguments:*

charset object of class [ISOCharacterSet](#) or any [character](#) among values returned by [ISOCharacterSet\\$values\(\)](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
loc <- ISOLocale$new()
loc$setId("eng")
loc$setLanguage("eng")
loc$setCountry("UK")
loc$setCharacterSet("utf8")
```

---

ISOLocaleContainer      *ISOLocaleContainer*

---

**Description**

ISOLocaleContainer

ISOLocaleContainer

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO LocaleContainer

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOLocaleContainer

**Public fields**

description description [1..1]

locale locale [1..1]

date date [1..\*]

responsibleParty responsibleParty [1..\*]

localisedString localisedString [1..\*]

## Methods

### Public methods:

- [ISOLocaleContainer\\$new\(\)](#)
- [ISOLocaleContainer\\$setDescription\(\)](#)
- [ISOLocaleContainer\\$setLocale\(\)](#)
- [ISOLocaleContainer\\$addDate\(\)](#)
- [ISOLocaleContainer\\$delDate\(\)](#)
- [ISOLocaleContainer\\$addResponsibleParty\(\)](#)
- [ISOLocaleContainer\\$delResponsibleParty\(\)](#)
- [ISOLocaleContainer\\$addLocalisedString\(\)](#)
- [ISOLocaleContainer\\$delLocalisedString\(\)](#)
- [ISOLocaleContainer\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOLocaleContainer$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setDescription()`: Set description

*Usage:*

```
ISOLocaleContainer$setDescription(description, locales = NULL)
```

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method** `setLocale()`: Set locale

*Usage:*

```
ISOLocaleContainer$setLocale(locale)
```

*Arguments:*

locale object of class [ISOLocale](#)

**Method** `addDate()`: Adds date

*Usage:*

```
ISOLocaleContainer$addDate(date)
```

*Arguments:*

date object of class [ISODate](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** `delDate()`: Deletes date

*Usage:*

```
ISOLocaleContainer$delDate(date)
```



*Arguments:*

date object of class [ISODate](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addResponsibleParty(): Adds responsible party

*Usage:*

ISOLocaleContainer\$addResponsibleParty(responsibleParty)

*Arguments:*

responsibleParty object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delResponsibleParty(): Deletes responsible party

*Usage:*

ISOLocaleContainer\$delResponsibleParty(responsibleParty)

*Arguments:*

responsibleParty object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addLocalisedString(): Adds localised string

*Usage:*

ISOLocaleContainer\$addLocalisedString(string)

*Arguments:*

string object of class [character](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delLocalisedString(): Deletes localised string

*Usage:*

ISOLocaleContainer\$delLocalisedString(string)

*Arguments:*

string object of class [character](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOLocaleContainer\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOLocalisedCharacterString  
*ISOLocalisedCharacterString*

---

**Description**

ISOLocalisedCharacterString  
ISOLocalisedCharacterString

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO LocalisedCharacterString

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOBaseCharacterString](#)  
-> ISOLocalisedCharacterString

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOLocalisedCharacterString$new(xml = NULL, locale = NULL, value)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

locale locale

value value

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

**Examples**

```
str <- ISOLocalisedCharacterString$new(locale = "FR", value = "ma description")
str$encode()
```

---

ISOLocalName	<i>ISOLocalName</i>
--------------	---------------------

---

**Description**

ISOLocalName

ISOLocalName

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO LocalName

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::GMLCodeType](#) -> [geometa::ISOAbstractGeneralization](#)  
-> ISOLocalName

**Public fields**

value value

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOLocalName$new(xml = NULL, value = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOMaintenanceFrequency

*ISOMaintenanceFrequency*

---

### Description

ISOMaintenanceFrequency

ISOMaintenanceFrequency

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO MaintenanceFrequency

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISOMaintenanceFrequency

### Methods

#### Public methods:

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

**Method** new(): Initializes object

*Usage:*

```
ISOMaintenanceFrequency$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
value value  
description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOMaintenanceFrequency$values(labels = TRUE)

#daily frequency
daily <- ISOMaintenanceFrequency$new(value = "daily")
```

---

ISOMaintenanceInformation

*ISOMaintenanceInformation*

---

**Description**

ISOMaintenanceInformation

ISOMaintenanceInformation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO MaintenanceInformation

**Super classes**

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOMaintenanceInformation`

**Public fields**

`maintenanceAndUpdateFrequency` `maintenanceAndUpdateFrequency`

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

- `ISOMaintenanceInformation$new()`
- `ISOMaintenanceInformation$setMaintenanceFrequency()`
- `ISOMaintenanceInformation$clone()`

**Method** `new()`: Initializes object

*Usage:*

`ISOMaintenanceInformation$new(xml = NULL)`

*Arguments:*

`xml` object of class `XMLInternalNode-class`

**Method** `setMaintenanceFrequency()`: Set maintenance frequency

*Usage:*

`ISOMaintenanceInformation$setMaintenanceFrequency(frequency)`

*Arguments:*

`frequency` `frequency` object of class `ISOMaintenanceFrequency` or any `character` among values returned by `ISOMaintenanceFrequency$values()`

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

*Usage:*

`ISOMaintenanceInformation$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOMaintenanceInformation$new()
md$setMaintenanceFrequency("daily")
xml <- md$encode()
```

---

 ISOMeasure

*ISOMeasure*


---

**Description**

ISOMeasure

ISOMeasure

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an ISO Measure

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOMeasure
```

**Public fields**

value value

attrs attrs

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

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

**Method new():** Initializes object*Usage:*

ISOMeasure\$new(xml = NULL, value, uom, useUomURI = FALSE)

*Arguments:*xml object of class [XMLInternalNode-class](#)

value value

uom uom symbol of unit of measure used

useUomURI use uom URI. Default is FALSE

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

ISOMeasure\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOMedium

*ISOMedium*

---

**Description**

ISOMedium

ISOMedium

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Citation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOMedium

**Public fields**

name name

density density

densityUnits density units

volumes volumes

mediumFormat medium format

mediumNote medium note

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

- [ISOMedium\\$new\(\)](#)
- [ISOMedium\\$setName\(\)](#)
- [ISOMedium\\$addDensity\(\)](#)
- [ISOMedium\\$delDensity\(\)](#)
- [ISOMedium\\$setDensityUnits\(\)](#)
- [ISOMedium\\$setVolumes\(\)](#)



- [ISOMedium\\$addMediumFormat\(\)](#)
- [ISOMedium\\$delMediumFormat\(\)](#)
- [ISOMedium\\$setMediumNote\(\)](#)
- [ISOMedium\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISOMedium\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setName():** Set name

*Usage:*

ISOMedium\$setName(name)

*Arguments:*

name name object of class [ISOMediumName](#) or [character](#) among values returned by [ISOMediumName\\$values\(\)](#)

**Method addDensity():** Adds density

*Usage:*

ISOMedium\$addDensity(density)

*Arguments:*

density object of class [numeric](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delDensity():** Deletes density

*Usage:*

ISOMedium\$delDensity(density)

*Arguments:*

density object of class [numeric](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setDensityUnits():** Set density units

*Usage:*

ISOMedium\$setDensityUnits(densityUnits)

*Arguments:*

densityUnits densityUnits

**Method setVolumes():** Set volumes

*Usage:*

ISOMedium\$setVolumes(volumes)

*Arguments:*

volumes object of class [integer](#)

**Method** addMediumFormat(): Adds medium format

*Usage:*

```
ISOMedium$addMediumFormat(mediumFormat)
```

*Arguments:*

mediumFormat object of class **ISOMediumFormat** or **character** among values returned by ISOMediumFormat\$values()

*Returns:* TRUE if added, FALSE otherwise

**Method** delMediumFormat(): Deletes medium format

*Usage:*

```
ISOMedium$delMediumFormat(mediumFormat)
```

*Arguments:*

mediumFormat object of class **ISOMediumFormat** or **character** among values returned by ISOMediumFormat\$values()

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setMediumNote(): Set medium note

*Usage:*

```
ISOMedium$setMediumNote(mediumNote, locales = NULL)
```

*Arguments:*

mediumNote medium note

locales list of localized notes. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOMedium$new()
md$setName("satellite")
md$addDensity(1.0)
md$setDensityUnits("string")
md$setVolumes(1L)
md$addMediumFormat("tar")
md$setMediumNote("some note")
xml <- md$encode()
```

---

ISOMediumFormat	<i>ISOMediumFormat</i>
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---

**Description**

ISOMediumFormat

ISOMediumFormat

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOMediumFormat

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOMediumFormat

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOMediumFormat$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOMediumFormat$values(labels = TRUE)

#MediumFormat
MediumFormat <- ISOMediumFormat$new(value = "tar")
```

---

ISOMediumName	<i>ISOMediumName</i>
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---

**Description**

ISOMediumName

ISOMediumName

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOMediumName

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue
-> ISOMediumName
```

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

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

**Method new():** Initializes object

*Usage:*

```
ISOMediumName$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
#possible values
values <- ISOMediumName$values(labels = TRUE)

#MediumName
MediumName <- ISOMediumName$new(value = "satellite")
```

---

ISOMemberName	<i>ISOMemberName</i>
---------------	----------------------

---

### Description

ISOMemberName

ISOMemberName

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOMemberName

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOMemberName

### Public fields

aName name

attributeType attribute type

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

- [ISOMemberName\\$new\(\)](#)
- [ISOMemberName\\$setName\(\)](#)
- [ISOMemberName\\$setAttributeType\(\)](#)
- [ISOMemberName\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOMemberName$new(xml = NULL, aName = NULL, attributeType = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`aName` a name

`attributeType` attribute type

**Method** `setName()`: Set name

*Usage:*

```
ISOMemberName$setName(aName, locales = NULL)
```

*Arguments:*

`aName` name

`locales` list of localized texts. Default is NULL

**Method** `setAttributeType()`: Set attribute type

*Usage:*

```
ISOMemberName$setAttributeType(attributeType, locales = NULL)
```

*Arguments:*

`attributeType` attribute type

`locales` list of localized texts. Default is NULL

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

ISOMetadata

*ISOMetadata***Description**

ISOMetadata

ISOMetadata

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO Metadata**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOMetadata**Public fields**

fileIdentifier fileIdentifier [0..1]: character

language language [0..1]: character

characterSet characterSet [0..1]: ISOCharacterSet = "utf8"

parentIdentifier parentIdentifier [0..1]: character

hierarchyLevel hierarchyLevel [0..\*]: ISOHierarchyLevel = "dataset"

hierarchyLevelName hierarchyLevelName [0..\*]: character

contact contact [1..\*]: ISOResponsibleParty

dateStamp dateStamp: POSIXct/POSIXt

metadataStandardName metadataStandardName [0..1]: character

metadataStandardVersion metadataStandardVersion [0..1]: character

dataSetURI dataSetURI [0..1]: character

locale locale [0..\*]: ISOLocale

spatialRepresentationInfo spatialRepresentationInfo [0..\*]: ISOSpatialRepresentation

referenceSystemInfo referenceSystemInfo [0..\*]: ISOReferenceSystem

metadataExtensionInfo metadataExtensionInfo [0..\*]: ISOMetadataExtensionInformation

identificationInfo identificationInfo [1..\*]: ISOIdentification

contentInfo contentInfo [0..\*]

distributionInfo distributionInfo [0..1]: ISODistribution

dataQualityInfo dataQualityInfo [0..\*]: ISODataQuality

metadataMaintenance metadataMaintenance [0..1]: ISOMaintenanceInformation

portrayalCatalogueInfo portrayalCatalogueInfo [0..\*]

applicationSchemaInformation applicationSchemaInfo [0..\*]

## Methods

### Public methods:

- ISOMetadata\$new()
- ISOMetadata\$setFileIdentifier()
- ISOMetadata\$setLanguage()
- ISOMetadata\$setCharacterSet()
- ISOMetadata\$setParentIdentifier()
- ISOMetadata\$addHierarchyLevel()
- ISOMetadata\$setHierarchyLevel()
- ISOMetadata\$delHierarchyLevel()
- ISOMetadata\$addHierarchyLevelName()
- ISOMetadata\$delHierarchyLevelName()
- ISOMetadata\$addContact()
- ISOMetadata\$delContact()
- ISOMetadata\$setDateStamp()
- ISOMetadata\$setMetadataStandardName()
- ISOMetadata\$setMetadataStandardVersion()
- ISOMetadata\$setDataSetURI()
- ISOMetadata\$addLocale()
- ISOMetadata\$delLocale()
- ISOMetadata\$addSpatialRepresentationInfo()
- ISOMetadata\$setSpatialRepresentationInfo()
- ISOMetadata\$delSpatialRepresentationInfo()
- ISOMetadata\$addReferenceSystemInfo()
- ISOMetadata\$setReferenceSystemInfo()
- ISOMetadata\$delReferenceSystemInfo()
- ISOMetadata\$addMetadataExtensionInfo()
- ISOMetadata\$delMetadataExtensionInfo()
- ISOMetadata\$addIdentificationInfo()
- ISOMetadata\$setIdentificationInfo()
- ISOMetadata\$delIdentificationInfo()
- ISOMetadata\$setDistributionInfo()
- ISOMetadata\$addDataQualityInfo()
- ISOMetadata\$setDataQualityInfo()
- ISOMetadata\$delDataQualityInfo()
- ISOMetadata\$setMetadataMaintenance()
- ISOMetadata\$addContentInfo()
- ISOMetadata\$delContentInfo()
- ISOMetadata\$clone()

**Method** new(): Initializes object

*Usage:*



ISOMetadata\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setFileIdentifier(): Set file identifier

*Usage:*

ISOMetadata\$setFileIdentifier(fileIdentifier)

*Arguments:*

fileIdentifier file identifier

**Method** setLanguage(): Set language

*Usage:*

ISOMetadata\$setLanguage(locale)

*Arguments:*

locale object of class [ISOLanguage](#) or any [character](#) from values returned by [ISOLanguages\\$values\(\)](#)

**Method** setCharacterSet(): Set charset

*Usage:*

ISOMetadata\$setCharacterSet(charset)

*Arguments:*

charset object of class [ISOCharacterSet](#) or any [character](#) from values returned by [ISOCharacterSet\\$values\(\)](#)

**Method** setParentIdentifier(): Set parent identifier

*Usage:*

ISOMetadata\$setParentIdentifier(parentIdentifier)

*Arguments:*

parentIdentifier parent identifier

**Method** addHierarchyLevel(): Adds hierarchy level

*Usage:*

ISOMetadata\$addHierarchyLevel(level)

*Arguments:*

level object of class [ISOHierarchyLevel](#) or any [character](#) from values returned by [ISOHierarchyLevel\\$values\(\)](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setHierarchyLevel(): Sets hierarchy level

*Usage:*

ISOMetadata\$setHierarchyLevel(level)

*Arguments:*

level object of class [ISOHierarchyLevel](#) or any [character](#) from values returned by [ISOHierarchyLevel\\$values\(\)](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delHierarchyLevel():** Deletes hierarchy level

*Usage:*

ISOMetadata\$delHierarchyLevel(level)

*Arguments:*

level object of class [ISOHierarchyLevel](#) or any [character](#) from values returned by ISOHierarchyLevel\$values()

*Returns:* TRUE if deleted, FALSE otherwise

**Method addHierarchyLevelName():** Adds hierarchy level name

*Usage:*

ISOMetadata\$addHierarchyLevelName(levelName)

*Arguments:*

levelName object of class [character](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delHierarchyLevelName():** Deletes hierarchy level name

*Usage:*

ISOMetadata\$delHierarchyLevelName(levelName)

*Arguments:*

levelName object of class [character](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addContact():** Adds contact

*Usage:*

ISOMetadata\$addContact(contact)

*Arguments:*

contact object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delContact():** Deletes contact

*Usage:*

ISOMetadata\$delContact(contact)

*Arguments:*

contact object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setDateStamp():** Set date stamp

*Usage:*

ISOMetadata\$setDateStamp(date)

*Arguments:*

date date

**Method** setMetadataStandardName(): Set metadata standard name

*Usage:*

ISOMetadata\$setMetadataStandardName(name)

*Arguments:*

name name

**Method** setMetadataStandardVersion(): Set metadata standard version

*Usage:*

ISOMetadata\$setMetadataStandardVersion(version)

*Arguments:*

version version

**Method** setDataSetURI(): Set dataset URI

*Usage:*

ISOMetadata\$setDataSetURI(dataSetURI)

*Arguments:*

dataSetURI dataset URI

**Method** addLocale(): Adds locale

*Usage:*

ISOMetadata\$addLocale(locale)

*Arguments:*

locale object of class [ISOLocale](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delLocale(): Deletes locale

*Usage:*

ISOMetadata\$delLocale(locale)

*Arguments:*

locale object of class [ISOLocale](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addSpatialRepresentationInfo(): Adds spatial representation info

*Usage:*

ISOMetadata\$addSpatialRepresentationInfo(spatialRepresentationInfo)

*Arguments:*

spatialRepresentationInfo object of class [ISOSpatialRepresentation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setSpatialRepresentationInfo(): Sets spatial representation info

*Usage:*

ISOMetadata\$setSpatialRepresentationInfo(spatialRepresentationInfo)

*Arguments:*

spatialRepresentationInfo object of class [ISOSpatialRepresentation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delSpatialRepresentationInfo():** Deletes spatial representation info

*Usage:*

ISOMetadata\$delSpatialRepresentationInfo(spatialRepresentationInfo)

*Arguments:*

spatialRepresentationInfo object of class [ISOSpatialRepresentation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addReferenceSystemInfo():** Adds reference system info

*Usage:*

ISOMetadata\$addReferenceSystemInfo(referenceSystemInfo)

*Arguments:*

referenceSystemInfo object of class [ISOReferenceSystem](#)

*Returns:* TRUE if added, FALSE otherwise

**Method setReferenceSystemInfo():** Sets reference system info

*Usage:*

ISOMetadata\$setReferenceSystemInfo(referenceSystemInfo)

*Arguments:*

referenceSystemInfo object of class [ISOReferenceSystem](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delReferenceSystemInfo():** Deletes reference system info

*Usage:*

ISOMetadata\$delReferenceSystemInfo(referenceSystemInfo)

*Arguments:*

referenceSystemInfo object of class [ISOReferenceSystem](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addMetadataExtensionInfo():** Adds metadata extension info

*Usage:*

ISOMetadata\$addMetadataExtensionInfo(metadataExtensionInfo)

*Arguments:*

metadataExtensionInfo object of class [ISOMetadataExtensionInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delMetadataExtensionInfo():** Deletes metadata extension info

*Usage:*

ISOMetadata\$delMetadataExtensionInfo(metadataExtensionInfo)

*Arguments:*

metadataExtensionInfo object of class [ISOMetadataExtensionInformation](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addIdentificationInfo(): Adds metadata extension info

*Usage:*

ISOMetadata\$addIdentificationInfo(identificationInfo)

*Arguments:*

identificationInfo object of class inheriting [ISOIdentification](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setIdentificationInfo(): Sets metadata extension info

*Usage:*

ISOMetadata\$setIdentificationInfo(identificationInfo)

*Arguments:*

identificationInfo object of class inheriting [ISOIdentification](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delIdentificationInfo(): Deletes metadata extension info

*Usage:*

ISOMetadata\$delIdentificationInfo(identificationInfo)

*Arguments:*

identificationInfo object of class inheriting [ISOIdentification](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setDistributionInfo(): Sets metadata extension info

*Usage:*

ISOMetadata\$setDistributionInfo(distributionInfo)

*Arguments:*

distributionInfo object of class [ISODistribution](#)

*Returns:* TRUE if set, FALSE otherwise

**Method** addDataQualityInfo(): Adds data quality info

*Usage:*

ISOMetadata\$addDataQualityInfo(dataQualityInfo)

*Arguments:*

dataQualityInfo object of class [ISODataQuality](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** setDataQualityInfo(): Sets data quality info

*Usage:*

ISOMetadata\$setDataQualityInfo(dataQualityInfo)

*Arguments:*

dataQualityInfo object of class [ISODataQuality](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delDataQualityInfo(): Deletes data quality info

*Usage:*

ISOMetadata\$delDataQualityInfo(dataQualityInfo)

*Arguments:*

dataQualityInfo object of class [ISODataQuality](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setMetadataMaintenance(): Sets metadata maintenance

*Usage:*

ISOMetadata\$setMetadataMaintenance(metadataMaintenance)

*Arguments:*

metadataMaintenance object of class [ISOMaintenanceInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** addContentInfo(): Adds content information

*Usage:*

ISOMetadata\$addContentInfo(contentInfo)

*Arguments:*

contentInfo object of class inheriting [ISOContentInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delContentInfo(): Deletes content information

*Usage:*

ISOMetadata\$delContentInfo(contentInfo)

*Arguments:*

contentInfo object of class inheriting [ISOContentInformation](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOMetadata\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
#example 1 - WRITE: Create an ISO metadata and encode it as XML
#####
md = ISOMetadata$new()
md$setFileIdentifier("my-metadata-identifier")
md$setParentIdentifier("my-parent-metadata-identifier")
md$setCharacterSet("utf8")
md$setLanguage("eng")
md$setDateStamp(ISOdate(2015, 1, 1, 1))
md$setMetadataStandardName("ISO 19115:2003/19139")
md$setMetadataStandardVersion("1.0")
md$setDataSetURI("my-dataset-identifier")

#add 3 contacts
for(i in 1:3){
  rp <- ISOResponsibleParty$new()
  rp$setIndividualName(paste0("someone",i))
  rp$setOrganisationName("somewhere")
  rp$setPositionName(paste0("someposition",i))
  rp$setRole("pointOfContact")
  contact <- ISOContact$new()
  phone <- ISOTelephone$new()
  phone$setVoice(paste0("myphonenumber",i))
  phone$setFacsimile(paste0("myfacsimile",i))
  contact$setPhone(phone)
  address <- ISOAddress$new()
  address$setDeliveryPoint("theaddress")
  address$setCity("thecity")
  address$setPostalCode("111")
  address$setCountry("France")
  address$setEmail("someone@theorg.org")
  contact$setAddress(address)
  res <- ISOOnlineResource$new()
  res$setLinkage("http://somelink")
  res$setName("someresourcename")
  contact$setOnlineResource(res)
  rp$setContactInfo(contact)
  md$addContact(rp)
}

#VectorSpatialRepresentation
vsr <- ISOVectorSpatialRepresentation$new()
vsr$setTopologyLevel("geometryOnly")
geomObject <- ISOGeometricObjects$new()
geomObject$setGeometricObjectType("surface")
geomObject$setGeometricObjectCount(5L)
vsr$addGeometricObjects(geomObject)
md$addSpatialRepresentationInfo(vsr)
```

```

#ReferenceSystem
rs <- ISOReferenceSystem$new()
rsId <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")
rs$setReferenceSystemIdentifier(rsId)
md$addReferenceSystemInfo(rs)

#data identification
ident <- ISODataIdentification$new()
ident$setAbstract("abstract")
ident$setPurpose("purpose")
ident$addCredit("credit1")
ident$addCredit("credit2")
ident$addCredit("credit3")
ident$addStatus("completed")
ident$addLanguage("eng")
ident$addCharacterSet("utf8")
ident$addTopicCategory("biota")
ident$addTopicCategory("oceans")

#adding a point of contact
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenummer")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://somelink")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
ident$addPointOfContact(rp)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")

```



```
ct$setEditionDate(as.Date(ISOdate(2015, 1, 1, 1)))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp)
ident$setCitation(ct)

#graphic overview
go1 <- ISOBrowseGraphic$new(
  fileName = "http://www.somefile.org/png1",
  fileDescription = "Map Overview 1",
  fileType = "image/png"
)
go2 <- ISOBrowseGraphic$new(
  fileName = "http://www.somefile.org/png2",
  fileDescription = "Map Overview 2",
  fileType = "image/png"
)
ident$addGraphicOverview(go1)
ident$addGraphicOverview(go2)

#maintenance information
mi <- ISOMaintenanceInformation$new()
mi$setMaintenanceFrequency("daily")
ident$addResourceMaintenance(mi)

#adding legal constraints
lc <- ISOLegalConstraints$new()
lc$addUseLimitation("limitation1")
lc$addUseLimitation("limitation2")
lc$addUseLimitation("limitation3")
lc$addAccessConstraint("copyright")
lc$addAccessConstraint("license")
lc$addUseConstraint("copyright")
lc$addUseConstraint("license")
ident$addResourceConstraints(lc)

#adding security constraints
sc <- ISOSecurityConstraints$new()
sc$setClassification("secret")
sc$setUserNote("ultra secret")
sc$setClassificationSystem("no classification in particular")
sc$setHandlingDescription("description")
ident$addResourceConstraints(sc)

#adding extent
extent <- ISOExtent$new()
bbox <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
extent$addGeographicElement(bbox)
ident$addExtent(extent)

#add keywords
kwds <- ISOKeywords$new()
kwds$addKeyword("keyword1")
```

```

kwds$addKeyword("keyword2")
kwds$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle("General")
th$addDate(d)
kwds$setThesaurusName(th)
ident$addKeywords(kwds)

#add an INSPIRE spatial data theme?
inspire_kwd <- ISOKeywords$new()
anc1 <- ISOAnchor$new(
  name = "Environmental monitoring facilities",
  href = "http://inspire.ec.europa.eu/theme/ef"
)
inspire_kwd$addKeyword(anc1)
inspire_kwd$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle(
  ISOAnchor$new(
    name = "GEMET - INSPIRE themes, version 1.0",
    href="http://www.eionet.europa.eu/gemet/inspire_themes"
  )
)
inspire_date <- ISODate$new()
inspire_date$setDate(as.Date("2008-06-01"))
inspire_date$setDateType("publication")
th$addDate(inspire_date)
inspire_kwd$setThesaurusName(th)
ident$addKeywords(inspire_kwd)

#supplementalInformation
ident$setSupplementalInformation("some additional information")

#spatial representation type
ident$addSpatialRepresentationType("vector")

md$addIdentificationInfo(ident)

#Distribution
distrib <- ISODistribution$new()
dto <- ISODigitalTransferOptions$new()
for(i in 1:3){
  or <- ISOOnlineResource$new()
  or$setLinkage(paste0("http://somelink",i))
  or$setName(paste0("name",i))
  or$setDescription(paste0("description",i))
  or$setProtocol("WWW:LINK-1.0-http--link")
  dto$addOnlineResource(or)
}
distrib$setDigitalTransferOptions(dto)
md$setDistributionInfo(distrib)

#create dataQuality object with a 'dataset' scope

```

```

dq <- ISODataQuality$new()
scope <- ISOScope$new()
scope$setLevel("dataset")
dq$setScope(scope)

#add data quality reports...

#add a report the data quality
dc <- ISODomainConsistency$new()
result <- ISOConformanceResult$new()
spec <- ISOCitation$new()
spec$setTitle("Data Quality check")
spec$addAlternateTitle("This is is some data quality check report")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dc$addResult(result)
dq$addReport(dc)

#add INSPIRE reports?
#INSPIRE - interoperability of spatial data sets and services
dc_inspire1 <- ISODomainConsistency$new()
cr_inspire1 <- ISOConformanceResult$new()
cr_inspire_spec1 <- ISOCitation$new()
cr_title1 <- paste(
"Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC",
"of the European Parliament and of the Council as regards interoperability of spatial data",
"sets and services"
)
cr_inspire_spec1$setTitle(cr_title1)
cr_inspire1$setExplanation("See the referenced specification")
cr_inspire_date1 <- ISODate$new()
cr_inspire_date1$setDate(ISOdate(2010,12,8))
cr_inspire_date1$setDateType("publication")
cr_inspire_spec1$addDate(cr_inspire_date1)
cr_inspire1$setSpecification(cr_inspire_spec1)
cr_inspire1$setPass(TRUE)
dc_inspire1$addResult(cr_inspire1)
dq$addReport(dc_inspire1)
#INSPIRE - metadata
dc_inspire2 <- ISODomainConsistency$new()
cr_inspire2 <- ISOConformanceResult$new()
cr_inspire_spec2 <- ISOCitation$new()
cr_title2 <- paste(
"COMMISSION REGULATION (EC) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC",
"of the European Parliament and of the Council as regards metadata"
)
cr_inspire_spec2$setTitle(cr_title2)
cr_inspire2$setExplanation("See the referenced specification")

```

```

cr_inspire_date2 <- ISODate$new()
cr_inspire_date2$setDate(ISOdate(2008,12,4))
cr_inspire_date2$setDateType("publication")
cr_inspire_spec2$addDate(cr_inspire_date2)
cr_inspire2$setSpecification(cr_inspire_spec2)
cr_inspire2$setPass(TRUE)
dc_inspire2$addResult(cr_inspire2)
dq$addReport(dc_inspire2)

#add lineage
lineage <- ISOLineage$new()
lineage$setStatement("statement")
dq$setLineage(lineage)

md$addDataQualityInfo(dq)

#Content Information
#-----
#add a feature catalogue description
fcd <- ISOFeatureCatalogueDescription$new()
fcd$setComplianceCode(FALSE)
fcd$addLanguage("eng")
fcd$setIncludedWithDataset(FALSE)
cit = ISOCitation$new()
cit$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
cit$addDate(d)
cit$setEdition("1.0")
cit$setEditionDate(as.Date(ISOdate(2015, 1, 1, 1)))
contact = ISOContact$new()
fcLink <- ISOOnlineResource$new()
fcLink$setLinkage("http://somelink/featurecatalogue")
contact$setOnlineResource(fcLink)
rp = ISOResponsibleParty$new()
rp$setRole("publisher")
rp$setContactInfo(contact)
cit$addCitedResponsibleParty(rp)
fcd$addFeatureCatalogueCitation(cit)
md$addContentInfo(fcd)

#XML representation of the ISOMetadata
xml <- md$encode()

#example 2 - READ: Create an ISO metadata reading from XML
#####

require(XML)
xmlfile <- system.file("extdata/examples", "metadata.xml", package = "geometa")
xml <- xmlParse(xmlfile)
md <- ISOMetadata$new(xml = xml)

```

---

ISOMetadataExtensionInformation

*ISOMetadataExtensionInformation*

---

## Description

ISOMetadataExtensionInformation

ISOMetadataExtensionInformation

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO MetadataExtensionInformation

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOMetadataExtensionInformation

## Public fields

extensionOnLineResource extensionOnLineResource [0..1]: ISOOnlineResource

extendedElementInformation extendedElementInformation [0..\*]: ISOExtendedElementInformation

## Methods

### Public methods:

- [ISOMetadataExtensionInformation\\$new\(\)](#)
- [ISOMetadataExtensionInformation\\$setOnlineResource\(\)](#)
- [ISOMetadataExtensionInformation\\$addElement\(\)](#)
- [ISOMetadataExtensionInformation\\$delElement\(\)](#)
- [ISOMetadataExtensionInformation\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOMetadataExtensionInformation\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setOnlineResource\(\)](#): Set online resource

*Usage:*

ISOMetadataExtensionInformation\$setOnlineResource(onlineResource)

*Arguments:*

onlineResource object of class [ISOOnlineResource](#)

**Method** addElement(): Adds element*Usage:*

ISOMetadataExtensionInformation\$addElement(element)

*Arguments:*

element object of class inheriting [ISOExtendedElementInformation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delElement(): Deletes element*Usage:*

ISOMetadataExtensionInformation\$delElement(element)

*Arguments:*

element object of class inheriting [ISOExtendedElementInformation](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

ISOMetadataExtensionInformation\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create an extended element information
elem <- ISOExtendedElementInformation$new()
elem$setName("name")
elem$setShortName("shortName")
elem$setDomainCode(1L)
elem$setDefinition("some definition")
elem$setObligation("mandatory")
elem$setCondition("no condition")
elem$setDatatype("characterString")
elem$setMaximumOccurrence("string")
elem$setDomainValue("value")
```

```

elem$addParentEntity("none")
elem$setRule("rule")
elem$addRationale("rationale")
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
elem$addSource(rp)

md <- ISOMetadataExtensionInformation$new()
md$addElement(elem)

xml <- md$encode()

```

---

ISOMetadataNamespace *ISOMetadataNamespace*

---

### Description

ISOMetadataNamespace

ISOMetadataNamespace

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Metadata Namespace

**Public fields**

id id

uri uri

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

- [ISOMetadataNamespace\\$new\(\)](#)
- [ISOMetadataNamespace\\$getDefinition\(\)](#)
- [ISOMetadataNamespace\\$clone\(\)](#)

**Method** `new()`: Initializes namespace object

*Usage:*

```
ISOMetadataNamespace$new(id, uri)
```

*Arguments:*

id id

uri uri

**Method** `getDefinition()`: Get definition

*Usage:*

```
ISOMetadataNamespace$getDefinition()
```

*Returns:* an object of class [list](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Note**

ISO class used internally by geometa for specifying XML namespaces

**Author(s)**

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



---

ISOMetaIdentifier	<i>ISOMetaIdentifier</i>
-------------------	--------------------------

---

**Description**

ISOMetaIdentifier  
ISOMetaIdentifier

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO MetaIdentifier

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOIdentifier](#) ->  
ISOMetaIdentifier

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOMetaIdentifier$new(xml = NULL, code)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

code code

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOMetaIdentifier$new(code = "identifier")
xml <- md$encode()
```

---

ISOMimeType

*ISOMimeType*

---

**Description**

ISOMimeType

ISOMimeType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO MimeType

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOMimeType

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

- [ISOMimeType\\$new\(\)](#)
- [ISOMimeType\\$setName\(\)](#)
- [ISOMimeType\\$setType\(\)](#)
- [ISOMimeType\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISOMimeType$new(xml = NULL, type = NULL, name = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

type type

name name

**Method** setName(): Set name

*Usage:*

```
ISOMimeType$new()$setName(name)
```

*Arguments:*

name name

**Method** setType(): Set type

*Usage:*

```
ISOMimeType$new()$setType(type)
```

*Arguments:*

type type

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

*Usage:*

```
ISOMimeType$new()$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

ISO/TS 19139:2007 Geographic information – XML

#### Examples

```
md <- ISOMimeType$new(type = "somemimetype", name = "Mime type name")
xml <- md$encode()
```

---

ISOMultiplicity

*ISOMultiplicity*

---

#### Description

ISOMultiplicity

ISOMultiplicity

#### Format

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOMultiplicity

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOMultiplicity

**Public fields**

range range

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOMultiplicity$new(xml = NULL, lower, upper)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

lower lower

upper upper

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

**Examples**

```
md <- ISOMultiplicity$new(lower = 1, upper = Inf)
xml <- md$encode()
```

---

ISOMultiplicityRange *ISOMultiplicityRange*

---

### Description

ISOMultiplicityRange

ISOMultiplicityRange

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO MultiplicityRange

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOMultiplicityRange

### Public fields

lower lower

upper upper

### Methods

#### Public methods:

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

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOMultiplicityRange$new(xml = NULL, lower, upper)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

lower lower

upper upper

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

**Examples**

```
md <- ISOMultiplicityRange$new(lower = 1, upper = Inf)
xml <- md$encode()
```

---

ISONonQuantitativeAttributeAccuracy

*ISONonQuantitativeAttributeAccuracy*

---

**Description**

ISONonQuantitativeAttributeAccuracy

ISONonQuantitativeAttributeAccuracy

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISONonQuantitativeAttributeAccuracy

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISODataQualityAbstractElement
-> geometa::ISOAbstractThematicAccuracy -> ISONonQuantitativeAttributeAccuracy
```

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

- [ISONonQuantitativeAttributeAccuracy\\$clone\(\)](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#encoding
dq <- ISONonQuantitativeAttributeAccuracy$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```

---

ISOobligation

*ISOobligation*

---

**Description**

ISOobligation

ISOobligation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Obligation

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodelistValue  
-> ISOobligation
```

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

- `ISOobligation$new()`
- `ISOobligation$clone()`

**Method** `new()`: Initializes object

*Usage:*

```
ISOobligation$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values  
values <- ISOobligation$values(labels = TRUE)  
  
#mandatory value  
mandatory <- ISOobligation$new(value = "mandatory")
```



---

ISOOnLineFunction	<i>ISOOnLineFunction</i>
-------------------	--------------------------

---

**Description**

ISOOnLineFunction

ISOOnLineFunction

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO OnLineFunction**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOOnLineFunction**Methods****Public methods:**

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

**Method** `new()`: Initializes object*Usage:*`ISOOnLineFunction$new(xml = NULL, value, description = NULL)`*Arguments:*xml object of class [XMLInternalNode-class](#)

value value

description description

**Method** `clone()`: The objects of this class are cloneable with this method.*Usage:*`ISOOnLineFunction$clone(deep = FALSE)`*Arguments:*

deep Whether to make a deep clone.

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOOnlineFunction$values(labels = TRUE)

#example
download <- ISOOnlineFunction$new(value = "download")
```

---

ISOOnlineResource      *ISOOnlineResource*

---

**Description**

ISOOnlineResource

ISOOnlineResource

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Online Resource

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOOnlineResource

**Public fields**

linkage linkage  
protocol protocol  
name name  
description description  
function function

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

- [ISOOnlineResource\\$new\(\)](#)
- [ISOOnlineResource\\$setLinkage\(\)](#)
- [ISOOnlineResource\\$setName\(\)](#)
- [ISOOnlineResource\\$setProtocol\(\)](#)
- [ISOOnlineResource\\$setDescription\(\)](#)
- [ISOOnlineResource\\$setOnLineFunction\(\)](#)
- [ISOOnlineResource\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

`ISOOnlineResource$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setLinkage():** Set linkage

*Usage:*

`ISOOnlineResource$setLinkage(linkage)`

*Arguments:*

linkage linkage object of class [ISOURL](#) or [character](#)

**Method setName():** Set name

*Usage:*

`ISOOnlineResource$setName(name, locales = NULL)`

*Arguments:*

name name

locales list of localized texts. Default is NULL

**Method setProtocol():** Set protocol

*Usage:*

`ISOOnlineResource$setProtocol(protocol, locales = NULL)`

*Arguments:*

protocol protocol

locales list of localized texts. Default is NULL

**Method setDescription():** Set description

*Usage:*

`ISOOnlineResource$setDescription(description, locales = NULL)`

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method** setOnLineFunction(): Set online function

*Usage:*

```
ISOOnlineResource$setOnLineFunction(onLineFunction)
```

*Arguments:*

onLineFunction object of class [ISOOnLineFunction](#) or any [character](#) among values returned by ISOOnLineFunction\$values()

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOOnlineResource$new()
md$setLinkage("http://somelink")
md$setName("name")
md$setDescription("description")
md$setProtocol("protocol")
md$setOnLineFunction("download")
xml <- md$encode()
```

---

ISOOperationMetadata *ISOOperationMetadata*

---

### Description

ISOOperationMetadata

ISOOperationMetadata

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOOperationMetadata

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOOperationMetadata

**Public fields**

operationName operationName [1..1]: character  
 DCP DCP [1..\*]: ISODCPList  
 operationDescription operationDescription [0..1]: character  
 invocationName invocationName [0..1]: character  
 parameters parameters [0..\*]: ISOParameter  
 connectPoint connectPoint [1..\*]: ISOOnlineResource  
 dependsOn dependsOn [0..\*]: ISOOperationMetadata

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

- [ISOOperationMetadata\\$new\(\)](#)
- [ISOOperationMetadata\\$setOperationName\(\)](#)
- [ISOOperationMetadata\\$addDCP\(\)](#)
- [ISOOperationMetadata\\$delDCP\(\)](#)
- [ISOOperationMetadata\\$setOperationDescription\(\)](#)
- [ISOOperationMetadata\\$setInvocationName\(\)](#)
- [ISOOperationMetadata\\$addParameter\(\)](#)
- [ISOOperationMetadata\\$delParameter\(\)](#)
- [ISOOperationMetadata\\$addConnectPoint\(\)](#)
- [ISOOperationMetadata\\$delConnectPoint\(\)](#)
- [ISOOperationMetadata\\$addDependentOperationMetadata\(\)](#)
- [ISOOperationMetadata\\$delDependentOperationMetadata\(\)](#)
- [ISOOperationMetadata\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOOperationMetadata$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setOperationName\(\)](#): Set operation name

*Usage:*

`ISOOperationMetadata$setOperationName(operationName, locales = NULL)`

*Arguments:*

operationName operation name

locales list of localized texts. Default is NULL

**Method addDCP():** Adds DCP

*Usage:*

```
ISOOperationMetadata$addDCP(dcp)
```

*Arguments:*

dcp object of class [ISODCPList](#) or any [character](#) among values returned by [ISODCPList\\$values\(\)](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delDCP():** Deletes DCP

*Usage:*

```
ISOOperationMetadata$delDCP(dcp)
```

*Arguments:*

dcp object of class [ISODCPList](#) or any [character](#) among values returned by [ISODCPList\\$values\(\)](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method setOperationDescription():** Set operation description

*Usage:*

```
ISOOperationMetadata$setOperationDescription(  
  operationDescription,  
  locales = NULL  
)
```

*Arguments:*

operationDescription operation description

locales list of localized texts. Default is NULL

**Method setInvocationName():** Set invocation name

*Usage:*

```
ISOOperationMetadata$setInvocationName(invocationName, locales = NULL)
```

*Arguments:*

invocationName invocation name

locales list of localized texts. Default is NULL

**Method addParameter():** Adds parameter

*Usage:*

```
ISOOperationMetadata$addParameter(parameter)
```

*Arguments:*

parameter object of class [ISOParameter](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delParameter():** Deletes parameter

*Usage:*

```
ISOOperationMetadata$delParameter(parameter)
```

*Arguments:*

parameter object of class [ISOParameter](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addConnectPoint(): Adds connection point

*Usage:*

ISOOperationMetadata\$addConnectPoint(connectPoint)

*Arguments:*

connectPoint object of class [ISOOnlineResource](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delConnectPoint(): Deletes connection point

*Usage:*

ISOOperationMetadata\$delConnectPoint(connectPoint)

*Arguments:*

connectPoint object of class [ISOOnlineResource](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addDependentOperationMetadata(): Adds operation metadata

*Usage:*

ISOOperationMetadata\$addDependentOperationMetadata(operationMetadata)

*Arguments:*

operationMetadata object of class [ISOOperationMetadata](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delDependentOperationMetadata(): Deletes operation metadata

*Usage:*

ISOOperationMetadata\$delDependentOperationMetadata(operationMetadata)

*Arguments:*

operationMetadata object of class [ISOOperationMetadata](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

ISOOperationMetadata\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19119:2005 - Geographic information – Services

**Examples**

```
md <- ISOOperationMetadata$new()
xml <- md$encode()
```

---

ISOOtherAggregate	<i>ISOOtherAggregate</i>
-------------------	--------------------------

---

**Description**

ISOOtherAggregate

ISOOtherAggregate

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOOtherAggregate

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractAggregate](#)  
-> ISOOtherAggregate

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

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

**Method** `new()`: Initializes object

*Usage:*

`ISOOtherAggregate$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

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

*Usage:*

`ISOOtherAggregate$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.



**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOParameter

*ISOParameter*

---

**Description**

ISOParameter

ISOParameter

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOParameter

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOParameter

**Public fields**

name name [1..1]: character

direction direction [0..1]: ISOParameterDirection

description description [0..1]: character

optionality optionality [1..1]: character

repeatability repeatability [1..1]: logical

valueType valueType [1..1]: ISOTypeName

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

- [ISOParameter\\$new\(\)](#)
- [ISOParameter\\$setName\(\)](#)
- [ISOParameter\\$setDirection\(\)](#)
- [ISOParameter\\$setDescription\(\)](#)
- [ISOParameter\\$setOptionality\(\)](#)
- [ISOParameter\\$setRepeatability\(\)](#)

- [ISOParameter\\$setValueType\(\)](#)
- [ISOParameter\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

`ISOParameter$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method setName():** Set name

*Usage:*

`ISOParameter$setName(name, attributeType, locales = NULL)`

*Arguments:*

`name` name

`attributeType` attribute type

`locales` list of localized texts. Default is NULL

**Method setDirection():** Set direction

*Usage:*

`ISOParameter$setDirection(direction)`

*Arguments:*

`direction` object of class [ISOParameterDirection](#) or [character](#) among values returned by `ISOParameterDirection$vals`

**Method setDescription():** Set description

*Usage:*

`ISOParameter$setDescription(description, locales = NULL)`

*Arguments:*

`description` description

`locales` list of localized texts. Default is NULL

**Method setOptionality():** Set optionality

*Usage:*

`ISOParameter$setOptionality(optional)`

*Arguments:*

`optional` object of class [logical](#)

**Method setRepeatability():** Set repeatability

*Usage:*

`ISOParameter$setRepeatability(repeatable)`

*Arguments:*

`repeatable` object of class [logical](#)

**Method setValueType():** Set value type

*Usage:*

```
ISOParameTer$valueType(valueType, locales = NULL)
```

*Arguments:*

valueType object of class [ISOTypeName](#) or [character](#)  
locales list of localized texts. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19119:2005 - Geographic information – Services

**Examples**

```
md <- ISOParameTer$new()  
md$setName("name", "attType")  
md$setDirection("in")  
md$setDescription("description")  
md$setOptionality(FALSE)  
md$setRepeatability(FALSE)  
md$valueType("CharacterString")  
xml <- md$encode()
```

---

ISOParameTerDirection *ISOParameTerDirection*

---

**Description**

ISOParameTerDirection  
ISOParameTerDirection

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOParameTerDirection

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodelistValue  
-> ISOParameTerDirection
```

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

- `ISOParameTerDirection$new()`
- `ISOParameTerDirection$clone()`

**Method** `new()`: Initializes object

*Usage:*

```
ISOParameTerDirection$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class `XMLInternalNode-class`

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19119:2005 - Geographic information – Services

**Examples**

```
#possible values  
values <- ISOParameTerDirection$values(labels = TRUE)  
  
#paramDir  
paramDir <- ISOParameTerDirection$new(value = "in")
```

---

ISOPixelOrientation    *ISOPixelOrientation*

---

**Description**

ISOPixelOrientation  
ISOPixelOrientation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOPixelOrientation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOPixelOrientation

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOPixelOrientation$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

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

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOPixelOrientation$values(labels = TRUE)

#PixelOrientation
PixelOrientation <- ISOPixelOrientation$new(value = "center")
```

---

ISOPlatform

*ISOPlatform*

---

**Description**

ISOPlatform

ISOPlatform

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOPlatform

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractAggregate](#)  
 -> [geometa::ISOSeries](#) -> ISOPlatform

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOPlatform\\$new](#)(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOPortrayalCatalogueReference

*ISOPortrayalCatalogueReference*

---

**Description**

ISOPortrayalCatalogueReference

ISOPortrayalCatalogueReference

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOPortrayalCatalogueReference

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOPortrayalCatalogueReference

**Public fields**

portrayalCatalogueCitation portrayalCatalogueCitation [1..\*]

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

- [ISOPortrayalCatalogueReference\\$new\(\)](#)
- [ISOPortrayalCatalogueReference\\$addCitation\(\)](#)
- [ISOPortrayalCatalogueReference\\$delCitation\(\)](#)
- [ISOPortrayalCatalogueReference\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOPortrayalCatalogueReference$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** addCitation(): Adds citation*Usage:*

```
ISOPortrayalCatalogueReference$addCitation(citation)
```

*Arguments:*

citation object of class [ISOCitation](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delCitation(): Deletes citation*Usage:*

```
ISOPortrayalCatalogueReference$delCitation(citation)
```

*Arguments:*

citation object of class [ISOCitation](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOPortrayalCatalogueReference$new()
#citation
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenummer")
phone$setFacsimile("myfacsimile")
```



```

contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://somelink")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(as.Date(ISOdate(2015, 1, 1, 1)))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp)
md$addCitation(ct)

xml <- md$encode()

```

---

ISOPresentationForm    *ISOPresentationForm*

---

## Description

ISOPresentationForm

ISOPresentationForm

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO PresentationForm

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOPresentationForm

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

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

**Method new():** Initializes object

*Usage:*

```
ISOPresentationForm$new(xml = NULL, value, description = NULL)
```

*Arguments:*

```
xml object of class XMLInternalNode-class
value value
description description
```

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

*Usage:*

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

*Arguments:*

```
deep Whether to make a deep clone.
```

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOPresentationForm$values(labels = TRUE)

#mapDigital type
map <- ISOPresentationForm$new(value = "mapDigital")
```

---

ISOProcessStep

*ISOProcessStep*

---

**Description**

ISOProcessStep

ISOProcessStep

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO ProcessStep

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOProcessStep

**Public fields**

description description: character  
rationale rationale [0..1]: character  
dateTime dateTime [0..1]: POSIXct/POSIXt  
processor processor [0..\*]: ISOResponsibleParty  
source source [0..\*]: ISOSource

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

- [ISOProcessStep\\$new\(\)](#)
- [ISOProcessStep\\$setDescription\(\)](#)
- [ISOProcessStep\\$setRationale\(\)](#)
- [ISOProcessStep\\$setDateTime\(\)](#)
- [ISOProcessStep\\$addProcessor\(\)](#)
- [ISOProcessStep\\$delProcessor\(\)](#)
- [ISOProcessStep\\$addSource\(\)](#)
- [ISOProcessStep\\$delSource\(\)](#)
- [ISOProcessStep\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOProcessStep\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setDescription\(\)](#): Set description

*Usage:*

[ISOProcessStep\\$setDescription\(description, locales = NULL\)](#)

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method** setRationale(): Set rationale

*Usage:*

```
ISOProcessStep$setRationale(rationale, locales = NULL)
```

*Arguments:*

rationale rationale

locales list of localized texts. Default is NULL

**Method** setDateTime(): Set date time

*Usage:*

```
ISOProcessStep$setDateTime(dateTime)
```

*Arguments:*

dateTime object of class [POSIXct](#)

**Method** addProcessor(): Adds processor

*Usage:*

```
ISOProcessStep$addProcessor(processor)
```

*Arguments:*

processor object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delProcessor(): Deletes processor

*Usage:*

```
ISOProcessStep$delProcessor(processor)
```

*Arguments:*

processor object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addSource(): Adds source

*Usage:*

```
ISOProcessStep$addSource(source)
```

*Arguments:*

source object of class [ISOSource](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delSource(): Deletes source

*Usage:*

```
ISOProcessStep$delSource(source)
```

*Arguments:*

source object of class [ISOSource](#)

*Returns:* TRUE if deleted, FALSE otherwise

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
ps <- ISOProcessStep$new()
ps$setDescription("description")
ps$setRationale("rationale")
ps$setDateTime( ISOdate(2015, 1, 1, 23, 59, 59))
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone") #and more responsible party properties..
ps$addProcessor(rp)
xml <- ps$encode()
```

---

ISOProductionSeries    *ISOProductionSeries*

---

**Description**

ISOProductionSeries  
ISOProductionSeries

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOProductionSeries

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractAggregate](#)  
-> [geometa::ISOSeries](#) -> ISOProductionSeries

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

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

**Method** [new\(\)](#): Initializes object

*Usage:*

ISOProductionSeries\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

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

*Usage:*

ISOProductionSeries\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOPropertyType	<i>ISOPropertyType</i>
-----------------	------------------------

---

**Description**

ISOPropertyType

ISOPropertyType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOPropertyType

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractCarrierOfCharacteristics](#)  
-> [geometa::ISOAbstractPropertyType](#) -> ISOPropertyType

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

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

**Method** `new()`: Initializes object

*Usage:*

```
ISOPropertyType$new(xml = NULL, defaults = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

`defaults` default values

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

---

ISOQuantitativeAttributeAccuracy

*ISOQuantitativeAttributeAccuracy*

---

**Description**

ISOQuantitativeAttributeAccuracy

ISOQuantitativeAttributeAccuracy

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOQuantitativeAttributeAccuracy

**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISODataQualityAbstractElement  
 -> geometa::ISOAbstractThematicAccuracy -> ISOQuantitativeAttributeAccuracy

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

- ISOQuantitativeAttributeAccuracy\$clone()

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#encoding
dq <- ISOQuantitativeAttributeAccuracy$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```



---

ISOQuantitativeResult *ISOQuantitativeResult*

---

### Description

ISOQuantitativeResult

ISOQuantitativeResult

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO QuantitativeResult

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractResult](#)  
-> ISOQuantitativeResult

### Public fields

valueType valueType [0..1]- ISORecord

valueUnit valueUnit [1..1]- GMLUnitDefinition

errorStatistic errorStatistic [0..1]

value value [1..\*]

### Methods

#### Public methods:

- [ISOQuantitativeResult\\$new\(\)](#)
- [ISOQuantitativeResult\\$setValueType\(\)](#)
- [ISOQuantitativeResult\\$setValueUnit\(\)](#)
- [ISOQuantitativeResult\\$setErrorStatistic\(\)](#)
- [ISOQuantitativeResult\\$addValue\(\)](#)
- [ISOQuantitativeResult\\$delValue\(\)](#)
- [ISOQuantitativeResult\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISOQuantitativeResult\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** setValueType(): Set value type

*Usage:*

ISOQuantitativeResult\$setValueType(valueType)

*Arguments:*

valueType object of class [ISORecordType](#) or [character](#)

**Method** setValueUnit(): Set value unit

*Usage:*

ISOQuantitativeResult\$setValueUnit(valueUnit)

*Arguments:*

valueUnit object of class inheriting [GMLUnitDefinition](#)

**Method** setErrorStatistic(): Set error statistic

*Usage:*

ISOQuantitativeResult\$setErrorStatistic(errorStatistic)

*Arguments:*

errorStatistic error statistic

**Method** addValue(): Adds value

*Usage:*

ISOQuantitativeResult\$addValue(value)

*Arguments:*

value object of class [ISORecord](#) or [character](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delValue(): Deletes value

*Usage:*

ISOQuantitativeResult\$delValue(value)

*Arguments:*

value object of class [ISORecord](#) or [character](#)

*Returns:* TRUE if delete, FALSE otherwise

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

*Usage:*

ISOQuantitativeResult\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
md <- ISOQuantitativeResult$new()
xml <- md$encode()
```

---

ISORangeDimension      *ISORangeDimension*

---

## Description

ISORangeDimension

ISORangeDimension

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISORangeDimension

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISORangeDimension

## Public fields

sequenceIdentifier sequenceIdentifier

descriptor descriptor

## Methods

### Public methods:

- [ISORangeDimension\\$new\(\)](#)
- [ISORangeDimension\\$setSequenceIdentifier\(\)](#)
- [ISORangeDimension\\$setDescriptor\(\)](#)
- [ISORangeDimension\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISORangeDimension$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setSequenceIdentifier()`: Set sequence identifier

*Usage:*

```
ISORangeDimension$setSequenceIdentifier(memberName)
```

*Arguments:*

memberName object of class [ISOMemberName](#)

**Method** `setDescriptor()`: Set descriptor

*Usage:*

```
ISORangeDimension$setDescriptor(descriptor, locales = NULL)
```

*Arguments:*

descriptor descriptor

locales list of localized texts. Default is NULL

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
#create dimension
md <- ISORangeDimension$new()
md$setSequenceIdentifier(ISOMemberName$new(aName = "name", attributeType = "type"))
md$setDescriptor("descriptor")
xml <- md$encode()
```

---

ISORecord

*ISORecord*

---

### Description

ISORecord

ISORecord

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISORecord

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISORecord

### Public fields

value value

### Methods

#### Public methods:

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

**Method** `new()`: Initializes object

*Usage:*

```
ISORecord$new(xml = NULL, value)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

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

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISORecordType	<i>ISORecordType</i>
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---

**Description**

ISORecordType

ISORecordType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISORecordType

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISORecordType

**Public fields**

value value

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

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

**Method new():** Initializes object

*Usage:*

ISORecordType\$new(xml = NULL, value)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

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

*Usage:*

ISORecordType\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOReferenceIdentifier

*ISOReferenceIdentifier*

---

**Description**

ISOReferenceIdentifier

ISOReferenceIdentifier

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO ReferenceIdentifier

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOIdentifier](#) ->  
ISOReferenceIdentifier

**Public fields**

codeSpace codeSpace [0..1]: character

version version [0..1]: character

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

- [ISOReferenceIdentifier\\$new\(\)](#)
- [ISOReferenceIdentifier\\$setCodeSpace\(\)](#)
- [ISOReferenceIdentifier\\$setVersion\(\)](#)
- [ISOReferenceIdentifier\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOReferenceIdentifier\\$new\(xml = NULL, code, codeSpace = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

code code

codeSpace code space

**Method** setCodeSpace(): Set code space

*Usage:*

```
ISOReferenceIdentifier$setCodeSpace(codeSpace)
```

*Arguments:*

codeSpace code space

**Method** setVersion(): Set version

*Usage:*

```
ISOReferenceIdentifier$setVersion(version)
```

*Arguments:*

version version

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

*Usage:*

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

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")
xml <- md$encode()
```



---

ISOReferenceSystem	<i>ISOReferenceSystem</i>
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---

### Description

ISOReferenceSystem

ISOReferenceSystem

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO ReferenceSystem

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOReferenceSystem

### Public fields

referenceSystemIdentifier referenceSystemIdentifier

### Methods

#### Public methods:

- [ISOReferenceSystem\\$new\(\)](#)
- [ISOReferenceSystem\\$setReferenceSystemIdentifier\(\)](#)
- [ISOReferenceSystem\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOReferenceSystem\\$new](#)(xml = NULL, prefix, code)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

prefix prefix

code code

**Method** [setReferenceSystemIdentifier\(\)](#): Set reference system identifier

*Usage:*

[ISOReferenceSystem\\$setReferenceSystemIdentifier](#)(identifier)

*Arguments:*

identifier object of class [ISOReferenceIdentifier](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOReferenceSystem$new()
rsId <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")
md$setReferenceSystemIdentifier(rsId)
xml <- md$encode()
```

---

ISORepresentativeFraction

*ISORepresentativeFraction*

---

### Description

ISORepresentativeFraction

ISORepresentativeFraction

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO RepresentativeFraction

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISORepresentativeFraction

### Public fields

denominator denominator

## Methods

### Public methods:

- [ISORepresentativeFraction\\$new\(\)](#)
- [ISORepresentativeFraction\\$setDenominator\(\)](#)
- [ISORepresentativeFraction\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISORepresentativeFraction$new(xml = NULL, denominator)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)  
`denominator` denominator

**Method** `setDenominator()`: Set denominator

*Usage:*

```
ISORepresentativeFraction$setDenominator(denominator)
```

*Arguments:*

`denominator` object of class [integer](#)

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

*Usage:*

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

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

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

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
fr <- ISORepresentativeFraction$new(denominator = 1L)
xml1 <- fr$encode()
fr$setDenominator(2L)
xml2 <- fr$encode()
```

---

ISOResolution

*ISOResolution*

---

### Description

ISOResolution

ISOResolution

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Resolution

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOResolution

### Public fields

equivalentScale equivalentScale

distance distance

### Methods

#### Public methods:

- [ISOResolution\\$new\(\)](#)
- [ISOResolution\\$setEquivalentScale\(\)](#)
- [ISOResolution\\$setDistance\(\)](#)
- [ISOResolution\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOResolution$new(xml = NULL, defaults = list())
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults list of defaults

**Method** [setEquivalentScale\(\)](#): Set equivalent scale

*Usage:*

```
ISOResolution$setEquivalentScale(equivalentScale)
```

*Arguments:*

equivalentScale object of class [ISORepresentativeFraction](#) or [numeric](#)

**Method** `setDistance()`: Set distance

*Usage:*

```
ISOResolution$setDistance(distance)
```

*Arguments:*

distance object of class [ISODistance](#)

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

*Usage:*

```
ISOResolution$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOResolution$new()
md$setDistance(ISODistance$new(value = 1, uom = "m", useUomURI = TRUE))
xml <- md$encode()
```

---

ISOResponsibleParty    *ISOResponsibleParty*

---

### Description

ISOResponsibleParty

ISOResponsibleParty

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO ResponsibleParty

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOResponsibleParty

**Public fields**

individualName individualName  
organisationName organisationName  
positionName positionName  
contactInfo contactInfo  
role role

**Methods****Public methods:**

- [ISOResponsibleParty\\$new\(\)](#)
- [ISOResponsibleParty\\$setIndividualName\(\)](#)
- [ISOResponsibleParty\\$setOrganisationName\(\)](#)
- [ISOResponsibleParty\\$setPositionName\(\)](#)
- [ISOResponsibleParty\\$setContactInfo\(\)](#)
- [ISOResponsibleParty\\$setRole\(\)](#)
- [ISOResponsibleParty\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISOResponsibleParty\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setIndividualName():** Set individual name

*Usage:*

ISOResponsibleParty\$setIndividualName(individualName, locales = NULL)

*Arguments:*

individualName individual name

locales list of localized texts. Default is NULL

**Method setOrganisationName():** Set organisation name

*Usage:*

ISOResponsibleParty\$setOrganisationName(organisationName, locales = NULL)

*Arguments:*

organisationName organisation name

locales list of localized texts. Default is NULL

**Method setPositionName():** Set position name

*Usage:*

```
ISOResponsibleParty$setPositionName(positionName, locales = NULL)
```

*Arguments:*

positionName position name  
locales list of localized texts. Default is NULL

**Method** setContactInfo(): Set contact info*Usage:*

```
ISOResponsibleParty$setContactInfo(contactInfo)
```

*Arguments:*

contactInfo object of class [ISOContact](#)

**Method** setRole(): Set role*Usage:*

```
ISOResponsibleParty$setRole(role)
```

*Arguments:*

role role object of class [ISORole](#) or any [character](#) among values returned by [ISORole\\$values\(\)](#)

**Method** clone(): The objects of this class are cloneable with this method.*Usage:*

```
ISOResponsibleParty$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create a responsible party element
md <- ISOResponsibleParty$new()
md$setIndividualName("someone")
md$setOrganisationName("somewhere")
md$setPositionName("someposition")
md$setRole("pointOfContact")

#add contact
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenummer")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
```

```

address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
md$setContactInfo(contact)

xml <- md$encode()

```

---

ISORestriction

*ISOHierarchyLevel*


---

### Description

ISOHierarchyLevel

ISOHierarchyLevel

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Restriction

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodelistValue](#)  
-> ISORestriction

### Methods

#### Public methods:

- [ISORestriction\\$new\(\)](#)
- [ISORestriction\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISORestriction$new(xml = NULL, value, description = NULL)
```

*Arguments:*



```
xml object of class XMLInternalNode-class
value value
description description
```

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISORestriction$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
#possible values
values <- ISORestriction$values(labels = TRUE)

#copyright restriction
cr <- ISORestriction$new(value = "copyright")
```

---

ISORole

*ISORole*

---

### Description

ISORole

ISORole

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Role

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodelistValue
-> ISORole
```

**Methods****Public methods:**

- [ISORole\\$new\(\)](#)
- [ISORole\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISORole$new(xml = NULL, value = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
ISORole$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISORole$values(labels = TRUE)

#publisher restriction
role <- ISORole$new(value = "publisher")
```

---

ISORoleType

*ISORoleType*

---

**Description**

ISORoleType

ISORoleType

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO RoleType

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodelistValue  
-> ISORoleType
```

**Methods****Public methods:**

- [ISORoleType\\$new\(\)](#)
- [ISORoleType\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISORoleType$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
ISORoleType$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19110:2005 Methodology for Feature cataloguing

**Examples**

```
#possible values  
values <- ISORoleType$values(labels = TRUE)  
  
#some charset  
ordinaryType <- ISORoleType$new(value = "ordinary")
```

---

ISOScale

*ISOScale*

---

### Description

ISOScale

ISOScale

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOScale measure

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOMeasure](#) -> ISOScale

### Methods

#### Public methods:

- [ISOScale\\$new\(\)](#)
- [ISOScale\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOScale$new(xml = NULL, value, uom, useUomURI = FALSE)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

uom uom symbol of unit of measure used

useUomURI use uom URI. Default is FALSE

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
ISOScale$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <[emmanuel.blondel1@gmail.com](mailto:emmanuel.blondel1@gmail.com)>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOScope

*ISOScope*

---

**Description**

ISOScope

ISOScope

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Scope

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOScope

**Public fields**

level level

**Methods****Public methods:**

- [ISOScope\\$new\(\)](#)
- [ISOScope\\$setLevel\(\)](#)
- [ISOScope\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOScope\\$new](#)(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setLevel\(\)](#): Set level

*Usage:*

[ISOScope\\$setLevel](#)(level)

*Arguments:*

level object of class [ISOHierarchyLevel](#) or any [character](#) among values returned by [ISOHierarchyLevel](#)

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISOScope$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOScope$new()
md$setLevel("dataset")
xml <- md$encode()
```

---

ISOScopeDescription    *ISOScopeDescription*

---

### Description

ISOScopeDescription

ISOScopeDescription

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO ScopeDescription

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOScopeDescription

**Public fields**

attributes attributes [1..\*]  
features features [1..\*]  
featureInstances featureInstances [1..\*]  
attributeInstances attributeInstances [1..\*]  
dataset dataset  
other other

**Methods****Public methods:**

- [ISOScopeDescription\\$new\(\)](#)
- [ISOScopeDescription\\$addAttribute\(\)](#)
- [ISOScopeDescription\\$delAttribute\(\)](#)
- [ISOScopeDescription\\$addAttributeInstance\(\)](#)
- [ISOScopeDescription\\$delAttributeInstance\(\)](#)
- [ISOScopeDescription\\$addFeatureInstance\(\)](#)
- [ISOScopeDescription\\$delFeatureInstance\(\)](#)
- [ISOScopeDescription\\$setDataset\(\)](#)
- [ISOScopeDescription\\$setOther\(\)](#)
- [ISOScopeDescription\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOScopeDescription$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `addAttribute()`: Adds attribute

*Usage:*

`ISOScopeDescription$addAttribute(attribute)`

*Arguments:*

`attribute` attribute

*Returns:* TRUE if added, FALSE otherwise

**Method** `delAttribute()`: Deletes attribute

*Usage:*

`ISOScopeDescription$delAttribute(attribute)`

*Arguments:*

`attribute` attribute

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addAttributeInstance(): Adds attribute instance

*Usage:*

ISOScopeDescription\$addAttributeInstance(attributeInstance)

*Arguments:*

attributeInstance attribute instance

*Returns:* TRUE if added, FALSE otherwise

**Method** delAttributeInstance(): Deletes attribute instance

*Usage:*

ISOScopeDescription\$delAttributeInstance(attributeInstance)

*Arguments:*

attributeInstance attribute instance

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addFeatureInstance(): Adds feature instance

*Usage:*

ISOScopeDescription\$addFeatureInstance(featureInstance)

*Arguments:*

featureInstance feature instance

*Returns:* TRUE if added, FALSE otherwise

**Method** delFeatureInstance(): Deletes feature instance

*Usage:*

ISOScopeDescription\$delFeatureInstance(featureInstance)

*Arguments:*

featureInstance feature instance

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setDataset(): Set dataset

*Usage:*

ISOScopeDescription\$setDataset(dataset)

*Arguments:*

dataset dataset

**Method** setOther(): Set other

*Usage:*

ISOScopeDescription\$setOther(other)

*Arguments:*

other other

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

ISOScopeDescription\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.



**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOScopeDescription$new()
xml <- md$encode()
```

---

ISOScopedName	<i>ISOScopedName</i>
---------------	----------------------

---

**Description**

ISOScopedName

ISOScopedName

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO ScopedName

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLCodeType -> geometa::ISOAbstractGen
-> ISOScopedName
```

**Public fields**

value value

**Methods****Public methods:**

- [ISOScopedName\\$new\(\)](#)
- [ISOScopedName\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOScopedName$new(xml = NULL, value)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
 value value

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

ISOScopedName\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

ISOSecurityConstraints

*ISOSecurityConstraints*

---

**Description**

ISOSecurityConstraints  
 ISOSecurityConstraints

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO SecurityConstraints

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOConstraints](#) ->  
 ISOSecurityConstraints

**Public fields**

classification classification: ISOClassification  
 userNote userNote [0..1]: character  
 classificationSystem classificationSystem [0..1]: character  
 handlingDescription handlingDescription [0..1]: character

**Methods****Public methods:**

- [ISOSecurityConstraints\\$new\(\)](#)
- [ISOSecurityConstraints\\$setClassification\(\)](#)
- [ISOSecurityConstraints\\$setUserNote\(\)](#)
- [ISOSecurityConstraints\\$setClassificationSystem\(\)](#)
- [ISOSecurityConstraints\\$setHandlingDescription\(\)](#)
- [ISOSecurityConstraints\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOSecurityConstraints$new(xml = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `setClassification()`: Set classification

*Usage:*

```
ISOSecurityConstraints$setClassification(classification)
```

*Arguments:*

`classification` object of class [ISOClassification](#) or any [character](#) among values returned by `ISOClassification$values()`

**Method** `setUserNote()`: Set user note

*Usage:*

```
ISOSecurityConstraints$setUserNote(userNote, locales = NULL)
```

*Arguments:*

`userNote` user note

`locales` list of localized texts. Default is NULL

**Method** `setClassificationSystem()`: Set classification system

*Usage:*

```
ISOSecurityConstraints$setClassificationSystem(  
  classificationSystem,  
  locales = NULL  
)
```

*Arguments:*

`classificationSystem` classification system

`locales` list of localized texts. Default is NULL

**Method** `setHandlingDescription()`: Set handling description

*Usage:*

```
ISOSecurityConstraints$setHandlingDescription(
  handlingDescription,
  locales = NULL
)
```

*Arguments:*

handlingDescription handling description  
 locales list of localized texts. Default is NULL

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
ISOSecurityConstraints$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create object
md <- ISOSecurityConstraints$new()
md$setClassification("secret")
md$setUserNote("ultra secret")
md$setClassificationSystem("no classification in particular")
md$setHandlingDescription("description")

xml <- md$encode()
```

---

ISOSensor

*ISOSensor*

---

**Description**

ISOSensor

ISOSensor

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOSensor

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractAggregate](#)  
-> [geometa::ISOSeries](#) -> ISOSensor

**Methods****Public methods:**

- [ISOSensor\\$new\(\)](#)
- [ISOSensor\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOSensor\\$new](#)(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [clone\(\)](#): The objects of this class are cloneable with this method.

*Usage:*

[ISOSensor\\$clone](#)(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <[emmanuel.blondel1@gmail.com](mailto:emmanuel.blondel1@gmail.com)>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOSeries

*ISOSeries*

---

**Description**

ISOSeries

ISOSeries

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOSeries

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractAggregate](#)  
-> ISOSeries

**Methods****Public methods:**

- [ISOSeries\\$new\(\)](#)
- [ISOSeries\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

`ISOSeries$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#)

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

`ISOSeries$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <[emmanuel.blondel1@gmail.com](mailto:emmanuel.blondel1@gmail.com)>

**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOServiceIdentification

*ISOServiceIdentification*

---

**Description**

ISOServiceIdentification

ISOServiceIdentification

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an ISO ServiceIdentification

**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOIdentification  
-> ISOServiceIdentification

**Methods****Public methods:**

- ISOServiceIdentification\$new()
- ISOServiceIdentification\$clone()

**Method new():** Initializes object

*Usage:*

```
ISOServiceIdentification$new(xml = NULL)
```

*Arguments:*

xml object of class XMLInternalNode-class

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
ISOServiceIdentification$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#encoding
md <- ISOServiceIdentification$new()
md$setAbstract("abstract")
md$setPurpose("purpose")
```

```
#adding a point of contact
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
```

```

rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenumber")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
md$addPointOfContact(rp)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp)
md$setCitation(ct)

#graphic overview
go <- ISOBrowseGraphic$new(
  fileName = "http://www.somefile.org/png",
  fileDescription = "Map Overview",
  fileType = "image/png"
)
md$addGraphicOverview(go)

#maintenance information
mi <- ISOMaintenanceInformation$new()
mi$setMaintenanceFrequency("daily")
md$addResourceMaintenance(mi)

#adding legal constraints
lc <- ISOLegalConstraints$new()
lc$addUseLimitation("limitation1")
lc$addUseLimitation("limitation2")

```



```

lc$addUseLimitation("limitation3")
lc$addAccessConstraint("copyright")
lc$addAccessConstraint("license")
lc$addUseConstraint("copyright")
lc$addUseConstraint("license")
md$addResourceConstraints(lc)

xml <- md$encode()

```

ISOSource

*ISOSource***Description**

ISOSource

ISOSource

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISO Source**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOSource**Public fields**

description description [0..1]: character

scaleDenominator scaleDenominator [0..1]: ISORepresentativeFraction

sourceReferenceSystem sourceReferenceSystem [0..1]: ISORepresentativeFraction

sourceCitation sourceCitation [0..1]: ISOCitation

sourceExtent sourceExtent [0..\*]: ISOExtent

sourceStep sourceStep [0..\*]: ISOPProcessStep

**Methods****Public methods:**

- [ISOSource\\$new\(\)](#)
- [ISOSource\\$setDescription\(\)](#)
- [ISOSource\\$setScaleDenominator\(\)](#)
- [ISOSource\\$setReferenceSystem\(\)](#)

- [ISOSource\\$setCitation\(\)](#)
- [ISOSource\\$addExtent\(\)](#)
- [ISOSource\\$delExtent\(\)](#)
- [ISOSource\\$addProcessStep\(\)](#)
- [ISOSource\\$delProcessStep\(\)](#)
- [ISOSource\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

ISOSource\$new(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setDescription():** Set description

*Usage:*

ISOSource\$setDescription(description, locales = NULL)

*Arguments:*

description description

locales list of localized texts. Default is NULL

**Method setScaleDenominator():** Set scale denominator

*Usage:*

ISOSource\$setScaleDenominator(denominator)

*Arguments:*

denominator object of class [ISORrepresentativeFraction](#)

**Method setReferenceSystem():** Set reference system

*Usage:*

ISOSource\$setReferenceSystem(referenceSystem)

*Arguments:*

referenceSystem object of class [ISORreferenceSystem](#)

**Method setCitation():** Set citation

*Usage:*

ISOSource\$setCitation(citation)

*Arguments:*

citation object of class [ISOCitation](#)

**Method addExtent():** Adds extent

*Usage:*

ISOSource\$addExtent(extent)

*Arguments:*

extent object of class [ISOExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delExtent():** Deletes extent

*Usage:*

ISOSource\$delExtent(extent)

*Arguments:*

extent object of class [ISOExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method addProcessStep():** Adds process step

*Usage:*

ISOSource\$addProcessStep(processStep)

*Arguments:*

processStep object of class [ISOProcessStep](#)

*Returns:* TRUE if added, FALSE otherwise

**Method delProcessStep():** Deletes process step

*Usage:*

ISOSource\$delProcessStep(processStep)

*Arguments:*

processStep object of class [ISOProcessStep](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

ISOSource\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```

src <- ISOSource$new()
src$setDescription("description")
src$setScaleDenominator(1L)

rs <- ISOReferenceSystem$new()
rsId <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")
rs$setReferenceSystemIdentifier(rsId)
src$setReferenceSystem(rs)

cit <- ISOCitation$new()
cit$setTitle("sometitle") #and more citation properties...
src$setCitation(cit)

extent <- ISOExtent$new()
bbox <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
extent$setGeographicElement(bbox)
src$addExtent(extent)
xml <- src$encode()

```

---

ISOSpatialRepresentation

*ISOSpatialRepresentation*


---

**Description**

ISOSpatialRepresentation

ISOSpatialRepresentation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO abstract SpatialRepresentation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOSpatialRepresentation

**Methods****Public methods:**

- [ISOSpatialRepresentation\\$new\(\)](#)
- [ISOSpatialRepresentation\\$clone\(\)](#)

**Method** new(): Initializes object

*Usage:*

```
ISOSpatialRepresentation$new(xml = NULL, defaults = list())
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

defaults list of defaults

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISOSpatialRepresentation$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Note

abstract class

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

---

ISOSpatialRepresentationType

*ISOSpatialRepresentationType*

---

### Description

ISOSpatialRepresentationType

ISOSpatialRepresentationType

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO SpatialRepresentationType

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOSpatialRepresentationType

**Methods****Public methods:**

- [ISOSpatialRepresentationType\\$new\(\)](#)
- [ISOSpatialRepresentationType\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOSpatialRepresentationType$new(xml = NULL, value = NULL, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
ISOSpatialRepresentationType$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOSpatialRepresentationType$values(labels = TRUE)

#vector example
vectorRep <- ISORestriction$new(value = "vector")
```

---

ISOSpatialTemporalExtent

*ISOSpatialTemporalExtent*

---

**Description**

ISOSpatialTemporalExtent

ISOSpatialTemporalExtent

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO SpatialTemporalExtent

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOTemporalExtent](#)  
-> [ISOSpatialTemporalExtent](#)

**Public fields**

spatialExtent [spatialExtent](#) [1..\*]: [ISOGeographicExtent](#)

**Methods****Public methods:**

- [ISOSpatialTemporalExtent\\$new\(\)](#)
- [ISOSpatialTemporalExtent\\$addSpatialExtent\(\)](#)
- [ISOSpatialTemporalExtent\\$delSpatialExtent\(\)](#)
- [ISOSpatialTemporalExtent\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOSpatialTemporalExtent\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [addSpatialExtent\(\)](#): Adds spatial extent

*Usage:*

[ISOSpatialTemporalExtent\\$addSpatialExtent\(spatialExtent\)](#)

*Arguments:*

spatialExtent object of class [ISOGeographicExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [delSpatialExtent\(\)](#): Deletes spatial extent

*Usage:*

[ISOSpatialTemporalExtent\\$delSpatialExtent\(spatialExtent\)](#)

*Arguments:*

spatialExtent object of class [ISOGeographicExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** [clone\(\)](#): The objects of this class are cloneable with this method.

*Usage:*

```
ISOSpatialTemporalExtent$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#create object
md <- ISOSpatialTemporalExtent$new()
start <- ISOdate(2000, 1, 12, 12, 59, 45)
end <- ISOdate(2010, 8, 22, 13, 12, 43)
tp <- GMLTimePeriod$new(beginPosition = start, endPosition = end)
md$setTimePeriod(tp)
spatialExtent <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
md$addSpatialExtent(spatialExtent)

xml <- md$encode()
```

---

ISOSRVServiceIdentification

*ISOSRVServiceIdentification*

---

**Description**

ISOSRVServiceIdentification

ISOSRVServiceIdentification

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO ServiceIdentification

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOIdentification
-> geometa::ISOServiceIdentification -> ISOSRVServiceIdentification
```



**Public fields**

serviceType serviceType [1..1]: ISOGenericName  
 serviceTypeVersion serviceTypeVersion [0..\*]: character  
 accessProperties accessProperties [0..1]: ISOStandardOrderProcess  
 restrictions restrictions [0..1]: ISOConstraints  
 keywords keywords [0..\*]: ISOKeywords  
 extent extent [0..\*]: ISOExtent  
 coupledResource coupledResource [0..\*]: ISOCoupledResource  
 couplingType couplingType [1..1]: ISOCouplingType  
 containsOperations containsOperations [1..\*]: ISOOperationMetadata  
 operatesOn operatesOn [0..\*]: ISODataIdentification

**Methods****Public methods:**

- [ISOSRVServiceIdentification\\$new\(\)](#)
- [ISOSRVServiceIdentification\\$setServiceType\(\)](#)
- [ISOSRVServiceIdentification\\$addServiceTypeVersion\(\)](#)
- [ISOSRVServiceIdentification\\$delServiceTypeVersion\(\)](#)
- [ISOSRVServiceIdentification\\$setAccessProperties\(\)](#)
- [ISOSRVServiceIdentification\\$setRestrictions\(\)](#)
- [ISOSRVServiceIdentification\\$addKeywords\(\)](#)
- [ISOSRVServiceIdentification\\$delKeywords\(\)](#)
- [ISOSRVServiceIdentification\\$addExtent\(\)](#)
- [ISOSRVServiceIdentification\\$delExtent\(\)](#)
- [ISOSRVServiceIdentification\\$addCoupledResource\(\)](#)
- [ISOSRVServiceIdentification\\$delCoupledResource\(\)](#)
- [ISOSRVServiceIdentification\\$setCouplingType\(\)](#)
- [ISOSRVServiceIdentification\\$addOperationMetadata\(\)](#)
- [ISOSRVServiceIdentification\\$delOperationMetadata\(\)](#)
- [ISOSRVServiceIdentification\\$addOperatesOn\(\)](#)
- [ISOSRVServiceIdentification\\$delOperatesOn\(\)](#)
- [ISOSRVServiceIdentification\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOSRVServiceIdentification$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setServiceType\(\)](#): Set service type

*Usage:*

ISOSRVServiceIdentification\$setServiceType(serviceType)

*Arguments:*

serviceType object of class [ISOLocalName](#), [ISOScopedName](#) or [character](#)

**Method** addServiceTypeVersion(): Adds service type version

*Usage:*

ISOSRVServiceIdentification\$addServiceTypeVersion(version)

*Arguments:*

version version

*Returns:* TRUE if added, FALSE otherwise

**Method** delServiceTypeVersion(): Deletes service type version

*Usage:*

ISOSRVServiceIdentification\$delServiceTypeVersion(version)

*Arguments:*

version version

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setAccessProperties(): Set access properties

*Usage:*

ISOSRVServiceIdentification\$setAccessProperties(accessProperties)

*Arguments:*

accessProperties object of class [ISOStandardOrderProcess](#)

**Method** setRestrictions(): Set restrictions

*Usage:*

ISOSRVServiceIdentification\$setRestrictions(restrictions)

*Arguments:*

restrictions object of class [ISOConstraints](#)

**Method** addKeywords(): Adds keywords

*Usage:*

ISOSRVServiceIdentification\$addKeywords(keywords)

*Arguments:*

keywords object of class [ISOKeywords](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delKeywords(): Deletes keywords

*Usage:*

ISOSRVServiceIdentification\$delKeywords(keywords)

*Arguments:*

keywords object of class [ISOKeywords](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addExtent(): Adds extent

*Usage:*

ISOSRVServiceIdentification\$addExtent(extent)

*Arguments:*

extent object of class [ISOExtent](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delExtent(): Deletes extent

*Usage:*

ISOSRVServiceIdentification\$delExtent(extent)

*Arguments:*

extent object of class [ISOExtent](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addCoupledResource(): Adds coupled resource

*Usage:*

ISOSRVServiceIdentification\$addCoupledResource(resource)

*Arguments:*

resource object of class [ISOCoupledResource](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delCoupledResource(): Deletes coupled resource

*Usage:*

ISOSRVServiceIdentification\$delCoupledResource(resource)

*Arguments:*

resource object of class [ISOCoupledResource](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** setCouplingType(): Set coupling type

*Usage:*

ISOSRVServiceIdentification\$setCouplingType(couplingType)

*Arguments:*

couplingType object of class [ISOCouplingType](#) or any [character](#) among values returned by  
ISOCouplingType\$values()

**Method** addOperationMetadata(): Adds operation metadata

*Usage:*

ISOSRVServiceIdentification\$addOperationMetadata(operationMetadata)

*Arguments:*

operationMetadata object of class [ISOOperationMetadata](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delOperationMetadata(): Deletes operation metadata

*Usage:*

ISOSRVServiceIdentification\$delOperationMetadata(operationMetadata)

*Arguments:*

operationMetadata object of class [ISOOperationMetadata](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** addOperatesOn(): Adds operates on

*Usage:*

ISOSRVServiceIdentification\$addOperatesOn(dataIdentification)

*Arguments:*

dataIdentification object of class [ISODataIdentification](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delOperatesOn(): Deletes operates on

*Usage:*

ISOSRVServiceIdentification\$delOperatesOn(dataIdentification)

*Arguments:*

dataIdentification object of class [ISODataIdentification](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

ISOSRVServiceIdentification\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### **Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### **References**

ISO 19119:2005 - Geographic information – Services

**Examples**

```
#encoding
md <- ISOSRVServiceIdentification$new()
md$setAbstract("abstract")
md$setPurpose("purpose")

#adding a point of contact
rp <- ISOResponsibleParty$new()
rp$setIndividualName("someone")
rp$setOrganisationName("somewhere")
rp$setPositionName("someposition")
rp$setRole("pointOfContact")
contact <- ISOContact$new()
phone <- ISOTelephone$new()
phone$setVoice("myphonenummer")
phone$setFacsimile("myfacsimile")
contact$setPhone(phone)
address <- ISOAddress$new()
address$setDeliveryPoint("theaddress")
address$setCity("thecity")
address$setPostalCode("111")
address$setCountry("France")
address$setEmail("someone@theorg.org")
contact$setAddress(address)
res <- ISOOnlineResource$new()
res$setLinkage("http://www.somewhereovertheweb.org")
res$setName("somename")
contact$setOnlineResource(res)
rp$setContactInfo(contact)
md$addPointOfContact(rp)

#citation
ct <- ISOCitation$new()
ct$setTitle("sometitle")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
ct$addDate(d)
ct$setEdition("1.0")
ct$setEditionDate(ISOdate(2015,1,1))
ct$addIdentifier(ISOMetaIdentifier$new(code = "identifier"))
ct$addPresentationForm("mapDigital")
ct$addCitedResponsibleParty(rp)
md$setCitation(ct)

#graphic overview
go <- ISOBrowseGraphic$new(
  fileName = "http://www.somefile.org/png",
  fileDescription = "Map Overview",
  fileType = "image/png"
)
md$addGraphicOverview(go)
```

```

#maintenance information
mi <- ISOMaintenanceInformation$new()
mi$setMaintenanceFrequency("daily")
md$addResourceMaintenance(mi)

#adding legal constraints
lc <- ISOLegalConstraints$new()
lc$addUseLimitation("limitation1")
lc$addUseLimitation("limitation2")
lc$addUseLimitation("limitation3")
lc$addAccessConstraint("copyright")
lc$addAccessConstraint("license")
lc$addUseConstraint("copyright")
lc$addUseConstraint("license")
md$addResourceConstraints(lc)

#specific elements to service identification
md$setServiceType("Fishery data harmonization process")
md$addServiceTypeVersion("1.0")
orderProcess <- ISOStandardOrderProcess$new()
orderProcess$setFees("fees")
orderProcess$setPlannedAvailableDateTime(ISOdate(2017,7,5,12,0,0))
orderProcess$setOrderingInstructions("instructions")
orderProcess$setTurnaround("turnaround")
md$setAccessProperties(orderProcess)
md$setRestrictions(lc)

kwds <- ISOKeywords$new()
kwds$addKeyword("keyword1")
kwds$addKeyword("keyword2")
kwds$setKeywordType("theme")
th <- ISOCitation$new()
th$setTitle("General")
th$addDate(d)
kwds$setThesaurusName(th)
md$addKeywords(kwds)

#adding extent
extent <- ISOExtent$new()
bbox <- ISOGeographicBoundingBox$new(minx = -180, miny = -90, maxx = 180, maxy = 90)
extent$addGeographicElement(bbox)
md$addExtent(extent)

#coupling type
#(here "tight" associated with a particular dataset "my-dataset-identifier")
#see ISOCouplingType$values(labels = T) for other values
md$setCouplingType("tight")
coupledDataset1 <- ISOCoupledResource$new()
coupledDataset1$setOperationName("Rscript")
coupledDataset1$setIdentifier("my-dataset-identifier")
coupledDataset2 <- ISOCoupledResource$new()
coupledDataset2$setOperationName("WPS:Execute")

```

```

coupledDataset2$setIdentifier("my-dataset-identifier")
md$addCoupledResource(coupledDataset1)
md$addCoupledResource(coupledDataset2)

#add operation metadata 1 (Rscript)
scriptOp <- ISOOperationMetadata$new()
scriptOp$setOperationName("Rscript")
scriptOp$addDCP("WebServices")
scriptOp$setOperationDescription("WPS Execute")
scriptOp$setInvocationName("identifier")
for(i in 1:3){
  param <- ISOParameter$new()
  param$setName(sprintf("name%s",i), "xs:string")
  param$setDirection("in")
  param$setDescription(sprintf("description%s",i))
  param$setOptionality(FALSE)
  param$setRepeatability(FALSE)
  param$setValueType("xs:string")
  scriptOp$addParameter(param)
}
outParam <-ISOParameter$new()
outParam$setName("outputname", "xs:string")
outParam$setDirection("out")
outParam$setDescription("outputdescription")
outParam$setOptionality(FALSE)
outParam$setRepeatability(FALSE)
outParam$setValueType("xs:string")
scriptOp$addParameter(outParam)
or <- ISOOnlineResource$new()
or$setLinkage("http://somelink/myrscript.R")
or$setName("R script name")
or$setDescription("R script description")
or$setProtocol("protocol")
scriptOp$addConnectPoint(or)
md$addOperationMetadata(scriptOp)
#add operation metadata 1 (WPS)
wpsOp <- ISOOperationMetadata$new()
wpsOp$setOperationName("WPS:Execute")
wpsOp$addDCP("WebServices")
wpsOp$setOperationDescription("WPS Execute")
invocationName <- "mywpsidentifier"
wpsOp$setInvocationName(invocationName)
for(i in 1:3){
  param <- ISOParameter$new()
  param$setName(sprintf("name%s",i), "xs:string")
  param$setDirection("in")
  param$setDescription(sprintf("description%s",i))
  param$setOptionality(FALSE)
  param$setRepeatability(FALSE)
  param$setValueType("xs:string")
  wpsOp$addParameter(param)
}
outParam <-ISOParameter$new()

```

```

outParam$setName("outputname", "xs:string")
outParam$setDirection("out")
outParam$setDescription("outputdescription")
outParam$setOptionality(FALSE)
outParam$setRepeatability(FALSE)
outParam$setValueType("xs:string")
wpsOp$addParameter(outParam)
or1 <- ISOOnlineResource$new()
or1$setLinkage(
  sprintf("http://somelink/wps?request=Execute&version=1.0.0&Identifier=%s",
    invocationName)
)
or1$setName("WPS process name")
or1$setDescription("WPS process description")
or1$setProtocol("protocol")
wpsOp$addConnectPoint(or1)
or2 <- ISOOnlineResource$new()
or2$setLinkage("http://somelink/myrscript.R")
or2$setName("Source R script name")
or2$setDescription("Source R script description")
or2$setProtocol("protocol")
wpsOp$addConnectPoint(or2)
md$addOperationMetadata(wpsOp)
xml <- md$encode()

```

---

ISOStandardOrderProcess

*ISOStandardOrderProcess*

---

## Description

ISOStandardOrderProcess

ISOStandardOrderProcess

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISO StandardOrderProcess

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOStandardOrderProcess



**Public fields**

fees fees [0..1]: character  
plannedAvailableDateTime plannedAvailableDateTime [0..1]: 'POSIXct/POSIXlt'  
orderingInstructions orderingInstructions [0..1]: character  
turnaround turnaround [0..1]: character

**Methods****Public methods:**

- [ISOStandardOrderProcess\\$new\(\)](#)
- [ISOStandardOrderProcess\\$setFees\(\)](#)
- [ISOStandardOrderProcess\\$setPlannedAvailableDateTime\(\)](#)
- [ISOStandardOrderProcess\\$setOrderingInstructions\(\)](#)
- [ISOStandardOrderProcess\\$setTurnaround\(\)](#)
- [ISOStandardOrderProcess\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

`ISOStandardOrderProcess$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method setFees():** Set fees

*Usage:*

`ISOStandardOrderProcess$setFees(fees, locales = NULL)`

*Arguments:*

fees fees

locales list of localized texts. Default is NULL

**Method setPlannedAvailableDateTime():** Set planned available date time

*Usage:*

`ISOStandardOrderProcess$setPlannedAvailableDateTime(dateTime)`

*Arguments:*

dateTime object of class [POSIXct](#)

**Method setOrderingInstructions():** Set ordering instructions

*Usage:*

`ISOStandardOrderProcess$setOrderingInstructions(instructions, locales = NULL)`

*Arguments:*

instructions instructions

locales list of localized texts. Default is NULL

**Method setTurnaround():** Set turnaround

*Usage:*

```
ISOStandardOrderProcess$setTurnaround(turnaround, locales = NULL)
```

*Arguments:*

turnaround turnaround

locales list of localized texts. Default is NULL

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISOStandardOrderProcess$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
md <- ISOStandardOrderProcess$new()
md$setFees("fees")
md$setPlannedAvailableDateTime(ISOdate(2017,7,5,12,0,0))
md$setOrderingInstructions("instructions")
md$setTurnaround("turnaround")
xml <- md$encode()
```

---

ISOStatus

*ISOStatus*

---

**Description**

ISOStatus

ISOStatus

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO progress status

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodelistValue  
-> ISOStatus
```

**Methods****Public methods:**

- [ISOStatus\\$new\(\)](#)
- [ISOStatus\\$clone\(\)](#)

**Method new():** Initializes object

*Usage:*

```
ISOStatus$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
ISOStatus$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values  
values <- ISOStatus$values(labels = TRUE)  
  
#pending status  
pending <- ISOStatus$new(value = "pending")
```

ISOStereoMate

*ISOStereoMate*

---

**Description**

ISOStereoMate

ISOStereoMate

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an ISOStereoMate**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOAbstractAggregate](#)  
-> ISOStereoMate**Methods****Public methods:**

- [ISOStereoMate\\$new\(\)](#)
- [ISOStereoMate\\$clone\(\)](#)

**Method** `new()`: Initialize object*Usage:*`ISOStereoMate$new(xml = NULL)`*Arguments:*`xml` object of class [XMLInternalNode-class](#)**Method** `clone()`: The objects of this class are cloneable with this method.*Usage:*`ISOStereoMate$clone(deep = FALSE)`*Arguments:*`deep` Whether to make a deep clone.**Author(s)**Emmanuel Blondel <[emmanuel.blondel1@gmail.com](mailto:emmanuel.blondel1@gmail.com)>**References**

ISO 19115:2003 - Geographic information – Metadata

---

ISOTelephone

*ISOTelephone*

---

### Description

ISOTelephone

ISOTelephone

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO Telephone

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOTelephone

### Public fields

voice voice

facsimile facsimile

### Methods

#### Public methods:

- [ISOTelephone\\$new\(\)](#)
- [ISOTelephone\\$setVoice\(\)](#)
- [ISOTelephone\\$setFacsimile\(\)](#)
- [ISOTelephone\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOTelephone\\$new](#)(xml = NULL)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setVoice\(\)](#): Set voice

*Usage:*

[ISOTelephone\\$setVoice](#)(voice, locales = NULL)

*Arguments:*

voice voice

locales list of localized voices. Default is NULL

**Method** setFacsimile(): Set facsimile

*Usage:*

```
ISOTelephone$setFacsimile(facsimile, locales = NULL)
```

*Arguments:*

facsimile facsimile

locales list of localized facsimiles. Default is NULL

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISOTelephone$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOTelephone$new()
md$setVoice("myphonenumbr")
md$setFacsimile("myfacsimile")
xml <- md$encode()
```

---

ISOTemporalConsistency

*ISOTemporalConsistency*

---

### Description

ISOTemporalConsistency

ISOTemporalConsistency

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISOTemporalConsistency

**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISODataQualityAbstractElement  
 -> geometa::ISOAbstractTemporalAccuracy -> ISOTemporalConsistency

**Methods****Public methods:**

- ISOTemporalConsistency\$clone()

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISOTemporalConsistency$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#encoding
dq <- ISOTemporalConsistency$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```

---

ISOTemporalExtent      *ISOTemporalExtent*

---

**Description**

ISOTemporalExtent

ISOTemporalExtent

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO TemporalExtent

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOTemporalExtent

**Public fields**

extent extent

**Methods****Public methods:**

- [ISOTemporalExtent\\$new\(\)](#)
- [ISOTemporalExtent\\$setTimeInstant\(\)](#)
- [ISOTemporalExtent\\$setTimePeriod\(\)](#)
- [ISOTemporalExtent\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOTemporalExtent\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setTimeInstant\(\)](#): Set time instant

*Usage:*

[ISOTemporalExtent\\$setTimeInstant\(timeInstant\)](#)

*Arguments:*

timeInstant object of class [GMLTimeInstant](#)

**Method** [setTimePeriod\(\)](#): Set time period



*Usage:*

```
ISOTemporalExtent$setTimePeriod(timePeriod)
```

*Arguments:*

timePeriod object of class [GMLTimePeriod](#)

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
ISOTemporalExtent$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
te <- ISOTemporalExtent$new()
start <- ISOdate(2000, 1, 12, 12, 59, 45)
end <- ISOdate(2010, 8, 22, 13, 12, 43)
tp <- GMLTimePeriod$new(beginPosition = start, endPosition = end)
te$setTimePeriod(tp)
```

---

ISOTemporalValidity    *ISOTemporalValidity*

---

**Description**

ISOTemporalValidity

ISOTemporalValidity

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOTemporalValidity

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISODataQualityAbstractElement
-> geometa::ISOAbstractTemporalAccuracy -> ISOTemporalValidity
```

## Methods

### Public methods:

- `ISOTemporalValidity$clone()`

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
ISOTemporalValidity$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

## References

ISO 19115:2003 - Geographic information – Metadata

## Examples

```
#encoding
dq <- ISOTemporalValidity$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()
```

---

ISOThematicClassificationCorrectness  
*ISOThematicClassificationCorrectness*

---

## Description

ISOThematicClassificationCorrectness

ISOThematicClassificationCorrectness

## Format

[R6Class](#) object.

## Value

Object of [R6Class](#) for modelling an ISOThematicClassificationCorrectness

## Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISODataQualityAbstractElement](#)  
-> [geometa::ISOAbstractTemporalAccuracy](#) -> ISOThematicClassificationCorrectness

## Methods

### Public methods:

- [ISOThematicClassificationCorrectness\\$clone\(\)](#)

**Method** [clone\(\)](#): The objects of this class are cloneable with this method.

*Usage:*

```
ISOThematicClassificationCorrectness$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

## Author(s)

Emmanuel Blondel <[emmanuel.blondel1@gmail.com](mailto:emmanuel.blondel1@gmail.com)>

## References

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```

#encoding
dq <- ISOThematicClassificationCorrectness$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()

```

---

ISOTopicCategory

*ISOTopicCategory*


---

**Description**

ISOTopicCategory

ISOTopicCategory

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO TopicCategory

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOCodeListValue](#)  
-> ISOTopicCategory

**Methods****Public methods:**

- [ISOTopicCategory\\$new\(\)](#)
- [ISOTopicCategory\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOTopicCategory$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
ISOTopicCategory$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOTopicCategory$values(labels = TRUE)

#biota topic
biota <- ISOTopicCategory$new(value = "biota")
```

---

ISOTopologicalConsistency

*ISOTopologicalConsistency*

---

**Description**

ISOTopologicalConsistency

ISOTopologicalConsistency

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an ISOTopologicalConsistency

**Super classes**

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISODataQualityAbstractElement  
-> geometa::ISOAbstractLogicalConsistency -> ISOTopologicalConsistency

**Methods****Public methods:**

- ISOTopologicalConsistency\$clone()

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISOTopologicalConsistency$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#encoding
dq <- ISOTopologicalConsistency$new()
dq$addNameOfMeasure("measure")
metaId <- ISOMetaIdentifier$new(code = "measure-id")
dq$setMeasureIdentification(metaId)
dq$setMeasureDescription("description")
dq$setEvaluationMethodDescription("method description")
dq$setEvaluationMethodType("indirect")
dq$setDateTime(ISOdate(2015,1,1,12,10,49))
spec <- ISOCitation$new()
spec$setTitle("specification title")
spec$addAlternateTitle("specification alternate title")
d <- ISODate$new()
d$setDate(ISOdate(2015, 1, 1, 1))
d$setDateType("publication")
spec$addDate(d)
```

```

dq$setEvaluationProcedure(spec)
result <- ISOConformanceResult$new()
result$setSpecification(spec)
result$setExplanation("some explanation about the conformance")
result$setPass(TRUE)
dq$addResult(result)
xml <- dq$encode()

```

---

ISOTopologyLevel	<i>ISOTopologyLevel</i>
------------------	-------------------------

---

### Description

ISOTopologyLevel

ISOTopologyLevel

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO TopologyLevel

### Super classes

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue
-> ISOTopologyLevel

```

### Methods

#### Public methods:

- [ISOTopologyLevel\\$new\(\)](#)
- [ISOTopologyLevel\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOTopologyLevel$new(xml = NULL, value, description = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

description description

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
ISOTopologyLevel$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

**Examples**

```
#possible values
values <- ISOTopologyLevel$values(labels = TRUE)

#geomOnly
geomOnly <- ISOTopologyLevel$new(value = "geometryOnly")
```

---

ISOTypeName

*ISOTypeName*

---

**Description**

ISOTypeName

ISOTypeName

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOTypeName

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOTypeName

**Public fields**

aName aName: character

**Methods****Public methods:**

- [ISOTypeName\\$new\(\)](#)
- [ISOTypeName\\$setName\(\)](#)
- [ISOTypeName\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object



*Usage:*

```
ISOTypeName$new(xml = NULL, aName = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)  
aName name

**Method** setName(): Set name*Usage:*

```
ISOTypeName$setName(aName, locales = NULL)
```

*Arguments:*

aName name  
locales list of localized names. Default is NULL

**Method** clone(): The objects of this class are cloneable with this method.*Usage:*

```
ISOTypeName$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

**Examples**

```
typeName <- ISOTypeName$new(aName = "name")  
xml <- typeName$encode()
```

---

ISOUnlimitedInteger    *ISOUnlimitedInteger*

---

**Description**

ISOUnlimitedInteger

ISOUnlimitedInteger

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO UnlimitedInteger

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOUnlimitedInteger

**Public fields**

value value

attrs attrs

**Methods****Public methods:**

- [ISOUnlimitedInteger\\$new\(\)](#)
- [ISOUnlimitedInteger\\$clone\(\)](#)

**Method** [new\(\)](#): Initialize object

*Usage:*

[ISOUnlimitedInteger\\$new\(xml = NULL, value\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

**Method** [clone\(\)](#): The objects of this class are cloneable with this method.

*Usage:*

[ISOUnlimitedInteger\\$clone\(deep = FALSE\)](#)

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

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**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

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ISOURL

*ISOURL*

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**Description**

ISOURL

ISOURL

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISOURL

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOURL

**Public fields**

value value

**Methods****Public methods:**

- [ISOURL\\$new\(\)](#)
- [ISOURL\\$setUrl\(\)](#)
- [ISOURL\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

```
ISOURL$new(xml = NULL, value = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

value value

**Method** [setUrl\(\)](#): Set URL

*Usage:*

```
ISOURL$setUrl(url)
```

*Arguments:*

url url

**Method** [clone\(\)](#): The objects of this class are cloneable with this method.

*Usage:*

```
ISOURL$.clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

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ISOUsage

*ISOUsage*

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**Description**

ISOUsage

ISOUsage

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO Usage

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOUsage

**Public fields**

specificUsage specificUsage

usageDateTime usageDateTime

userDeterminedLimitations userDeterminedLimitations

userContactInfo userContactInfo

**Methods****Public methods:**

- [ISOUsage\\$new\(\)](#)
- [ISOUsage\\$setSpecificUsage\(\)](#)
- [ISOUsage\\$setUsageDateTime\(\)](#)
- [ISOUsage\\$setUserDeterminedLimitations\(\)](#)
- [ISOUsage\\$addUserContact\(\)](#)
- [ISOUsage\\$delUserContact\(\)](#)
- [ISOUsage\\$clone\(\)](#)

**Method** `new()`: Initializes object

*Usage:*

```
ISOUsage$new(xml = NULL)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** `setSpecificUsage()`: Set specificUsage

*Usage:*

```
ISOUsage$setSpecificUsage(specificUsage, locales = NULL)
```

*Arguments:*

specificUsage specific usage

locales list of localized texts. Default is NULL

**Method** `setUsageDateTime()`: Set usage date time

*Usage:*

```
ISOUsage$setUsageDateTime(usageDateTime)
```

*Arguments:*

usageDateTime object of class [POSIXct](#)

**Method** `setUserDeterminedLimitations()`: Set user determined limitations

*Usage:*

```
ISOUsage$setUserDeterminedLimitations(  
  userDeterminedLimitations,  
  locales = NULL  
)
```

*Arguments:*

userDeterminedLimitations user determined limitations

locales list of localized texts. Default is NULL

**Method** `addUserContact()`: Adds user contact

*Usage:*

```
ISOUsage$addUserContact(contact)
```

*Arguments:*

contact object of class [ISOResponsibleParty](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** delUserContact(): Deletes user contact

*Usage:*

ISOUsage\$delUserContact(contact)

*Arguments:*

contact object of class [ISOResponsibleParty](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

ISOUsage\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

ISO 19115:2003 - Geographic information – Metadata

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ISOVectorSpatialRepresentation

*ISOVectorSpatialRepresentation*

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**Description**

ISOVectorSpatialRepresentation

ISOVectorSpatialRepresentation

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an ISO VectorSpatialRepresentation

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::ISOSpatialRepresentation](#)  
-> [ISOVectorSpatialRepresentation](#)

**Public fields**

topologyLevel topologyLevel [0..1]: ISOTopologyLevel  
geometricObjects geometricObjects [0..\*]: ISOGeometricObjects

**Methods****Public methods:**

- [ISOVectorSpatialRepresentation\\$new\(\)](#)
- [ISOVectorSpatialRepresentation\\$setTopologyLevel\(\)](#)
- [ISOVectorSpatialRepresentation\\$addGeometricObjects\(\)](#)
- [ISOVectorSpatialRepresentation\\$setGeometricObjects\(\)](#)
- [ISOVectorSpatialRepresentation\\$delGeometricObjects\(\)](#)
- [ISOVectorSpatialRepresentation\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

`ISOVectorSpatialRepresentation$new(xml = NULL)`

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setTopologyLevel\(\)](#): Set topology level

*Usage:*

`ISOVectorSpatialRepresentation$setTopologyLevel(topologyLevel)`

*Arguments:*

topologyLevel object of class [ISOTopologyLevel](#) or **character** among values returned by [ISOTopologyLevel\\$values\(\)](#)

**Method** [addGeometricObjects\(\)](#): Adds geometric objects

*Usage:*

`ISOVectorSpatialRepresentation$addGeometricObjects(geometricObjects)`

*Arguments:*

geometricObjects geometric objects, object of [ISOGeometricObjects](#)

*Returns:* TRUE if added, FALSE otherwise

**Method** [setGeometricObjects\(\)](#): Set geometric objects

*Usage:*

`ISOVectorSpatialRepresentation$setGeometricObjects(geometricObjects)`

*Arguments:*

geometricObjects geometric objects, object of [ISOGeometricObjects](#)

*Returns:* TRUE if set, FALSE otherwise

**Method** [delGeometricObjects\(\)](#): Deletes geometric objects

*Usage:*

```
ISOVectorSpatialRepresentation$delGeometricObjects(geometricObjects)
```

*Arguments:*

geometricObjects geometric objects, object of [ISOGeometricObjects](#)

*Returns:* TRUE if deleted, FALSE otherwise

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
ISOVectorSpatialRepresentation$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
md <- ISOVectorSpatialRepresentation$new()
md$setTopologyLevel("geometryOnly")
geomObject1 <- ISOGeometricObjects$new()
geomObject1$setGeometricObjectType("surface")
geomObject1$setGeometricObjectCount(5L)
md$addGeometricObjects(geomObject1)
xml <- md$encode()
```

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ISOVerticalExtent

*ISOVerticalExtent*

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### Description

ISOVerticalExtent

ISOVerticalExtent

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an ISO VerticalExtent



**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> ISOVerticalExtent

**Public fields**

minimumValue minimumValue [1..1]: numeric  
maximumValue maximumValue [1..1]: numeric  
unitOfMeasure unitOfMeasure [1..1]: character  
verticalCRS verticalCRS [1..1]: GMLVerticalCRS

**Methods****Public methods:**

- [ISOVerticalExtent\\$new\(\)](#)
- [ISOVerticalExtent\\$setMinimumValue\(\)](#)
- [ISOVerticalExtent\\$setMaximumValue\(\)](#)
- [ISOVerticalExtent\\$setUnitOfMeasure\(\)](#)
- [ISOVerticalExtent\\$setVerticalCRS\(\)](#)
- [ISOVerticalExtent\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes object

*Usage:*

[ISOVerticalExtent\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#)

**Method** [setMinimumValue\(\)](#): Set minimum value

*Usage:*

[ISOVerticalExtent\\$setMinimumValue\(minimumValue\)](#)

*Arguments:*

minimumValue minimum value

**Method** [setMaximumValue\(\)](#): Set maximum value

*Usage:*

[ISOVerticalExtent\\$setMaximumValue\(maximumValue\)](#)

*Arguments:*

maximumValue maximum value

**Method** [setUnitOfMeasure\(\)](#): Set unit of measure

*Usage:*

[ISOVerticalExtent\\$setUnitOfMeasure\(uom\)](#)

*Arguments:*

uom uom

**Method** setVerticalCRS(): Set vertical CRS

*Usage:*

```
ISOVerticalExtent$setVerticalCRS(verticalCRS)
```

*Arguments:*

```
verticalCRS verticalCRS
```

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
ISOVerticalExtent$clone(deep = FALSE)
```

*Arguments:*

```
deep Whether to make a deep clone.
```

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

ISO 19115:2003 - Geographic information – Metadata

### Examples

```
ve <- ISOVerticalExtent$new()
ve$setMinimumValue(0)
ve$setMaximumValue(19)
xml <- ve$encode()
```

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pivot\_converter

*pivot\_converter*

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### Description

pivot\_converter

pivot\_converter

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling a mapping format converter

**Public fields**

from from  
to to

**Methods**

**Public methods:**

- [pivot\\_converter\\$new\(\)](#)
- [pivot\\_converter\\$clone\(\)](#)

**Method new():** Initializes pivot converter

*Usage:*

`pivot_converter$new(from, to)`

*Arguments:*

from from  
to to

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

`pivot_converter$clone(deep = FALSE)`

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

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`pivot_format`

*pivot\_format*

---

**Description**

`pivot_format`  
`pivot_format`

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling a mapping format

**Public fields**

id id  
 pkg pkg  
 reader reader  
 checker checker  
 constructor constructor

**Methods****Public methods:**

- [pivot\\_format\\$new\(\)](#)
- [pivot\\_format\\$clone\(\)](#)

**Method new():** Initializes pivot format. Method is used to instantiate a pivot\_format, given a unique id, the name of package used (for information only). A format is then defined by string expressions (using sprintf formatting) to read metadata properties (reader), one for checking existence of properties (checker), and an expression to create metadata objects (constructor). In case the constructor is NULL, then no conversion to this metadata format will be possible.

*Usage:*

```
pivot_format$new(id, pkg, reader = NULL, checker = NULL, constructor = NULL)
```

*Arguments:*

id id  
 pkg pkg  
 reader reader  
 checker checker  
 constructor constructor

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
pivot_format$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**Examples**

```
#example on how geometa format is defined as pivot format
pivot_format$new(
  id = "geometa", pkg = "geometa",
  reader = "%s[[%s]]", checker = "!is.null(%s[[%s]])",
  constructor = "ISOMetadata$new"
)
```

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readISO19139	<i>readISO19139</i>
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### Description

readISO19139 is a function to read a ISO 19139 from a file or url into an object in the **geometa** model.

### Usage

```
readISO19139(file, url, raw)
```

### Arguments

file	a valid file path, as object of class character
url	a valid URL, as object of class character
raw	indicates if the function should return the raw XML. By default this is set to FALSE and the function will try to map the xml data to the <b>geometa</b> data model.

### Value

a **geometa** object inheriting ISOAbstractObject

### Author(s)

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

### Examples

```
mdfile <- system.file("extdata/examples", "metadata.xml", package = "geometa")
md <- readISO19139(mdfile)
```

---

registerISOCodelist	<i>registerISOCodelist</i>
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### Description

registerISOCodelist allows to register a new codelist registered in **geometa**

### Usage

```
registerISOCodelist(refFile, id, force)
```

**Arguments**

refFile	ISO XML file handling the ISO codelist
id	identifier of the ISO codelist
force	logical parameter indicating if registration has be to be forced in case the identified codelist is already registered

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
registerISOCodelist(  
  refFile = "http://www.isotc211.org/2005/resources/Codelist/ML_gmxCodelists.xml",  
  id = "LanguageCode",  
  force = TRUE  
)
```

---

registerISOMetadataNamespace  
*registerISOMetadataNamespace*

---

**Description**

registerISOMetadataNamespace allows to register a new namespace in **geometa**

**Usage**

```
registerISOMetadataNamespace(id, uri, force)
```

**Arguments**

id	prefix of the namespace
uri	URI of the namespace
force	logical parameter indicating if registration has be to be forced in case the identified namespace is already registered

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
registerISOMetadataNamespace(id = "myprefix", uri = "http://someuri")
```

---

registerISOMetadataSchema  
*registerISOMetadataSchema*

---

**Description**

registerISOMetadataSchema allows to register a new schema in **geometa**

**Usage**

```
registerISOMetadataSchema(xsdFile)
```

**Arguments**

xsdFile            the schema XSD file

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

**Examples**

```
registerISOMetadataSchema(xsdFile = "http://www.isotc211.org/2005/gmd/gmd.xsd")
```

---

registerMappingFormat *registerMappingFormat*

---

**Description**

registerMappingFormat allows to register a new mapping format in **geometa**

**Usage**

```
registerMappingFormat(mapping_format)
```

**Arguments**

mapping\_format    object of class pivot\_format

**Author(s)**

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

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registerMappings	<i>registerMappings</i>
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### Description

MappingFile allows to register in **geometa** a data.frame containing mappings rules to convert from/to other metadata formats (currently EML/emld objects and NetCDF-CF/ncdf4 objects)

### Usage

```
registerMappings(x)
```

### Arguments

x	a data.frame containing the metadata mapping rules
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setGeometaOption	<i>setGeometaOption</i>
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### Description

setGeometaOption allows to set an option from **geometa**

### Usage

```
setGeometaOption(option, value)
```

### Arguments

option	the name of the option
value	the value to set for the option

### Author(s)

Emmanuel Blondel, <emmanuel.blondel1@gmail.com>

### Examples

```
setGeometaOption("schemaBaseUrl", "http://somealternativeurl")
```



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setIANAMimeTypes      *setIANAMimeTypes*

---

**Description**

setIANAMimeTypes

**Usage**

setIANAMimeTypes()

---

setISOCodelists      *setISOCodelists*

---

**Description**

setISOCodelists

**Usage**

setISOCodelists()

---

setISOMetadataNamespaces  
*setMetadataNamespaces*

---

**Description**

setMetadataNamespaces

**Usage**

setISOMetadataNamespaces()

---

setISOMetadataSchemas      *setISOMetadataSchemas*

---

**Description**

setISOMetadataSchemas

**Usage**

setISOMetadataSchemas()

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setMappingFormats	<i>setMappingFormats</i>
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**Description**

setMappingFormats

**Usage**

setMappingFormats()

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SWEAbstractDataComponent	<i>SWEAbstractDataComponent</i>
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**Description**

SWEAbstractDataComponent  
SWEAbstractDataComponent

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE Abstract data component

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
-> [geometa::SWEAbstractSWE](#) -> [geometa::SWEAbstractSWEIdentifiable](#) -> SWEAbstractDataComponent

**Public fields**

name name

**Methods****Public methods:**

- [SWEAbstractDataComponent\\$new\(\)](#)
- [SWEAbstractDataComponent\\$addName\(\)](#)
- [SWEAbstractDataComponent\\$delName\(\)](#)
- [SWEAbstractDataComponent\\$clone\(\)](#)

**Method** new(): Initializes an object of class [SWEAbstractDataComponent](#)

*Usage:*

```
SWEAbstractDataComponent$new(  
  xml = NULL,  
  element = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
element element  
updatable updatable  
optional optional  
definition definition

**Method** addName(): Adds name

*Usage:*

```
SWEAbstractDataComponent$addName(name, codeSpace = NULL)
```

*Arguments:*

name name  
codeSpace codespace

**Method** delName(): Deletes name

*Usage:*

```
SWEAbstractDataComponent$delName(name, codeSpace = NULL)
```

*Arguments:*

name name  
codeSpace codespace

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
SWEAbstractDataComponent$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

#### Note

Class used internally by geometa

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

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SWEAbstractEncoding    *SWEAbstractEncoding*

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**Description**

SWEAbstractEncoding

SWEAbstractEncoding

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE abstract encoding object

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
-> [geometa::SWEAbstractSWE](#) -> SWEAbstractEncoding

**Methods****Public methods:**

- [SWEAbstractEncoding\\$new\(\)](#)
- [SWEAbstractEncoding\\$clone\(\)](#)

**Method** `new()`: Initializes a SWE Nil Values object

*Usage:*

`SWEAbstractEncoding$new(xml = NULL)`

*Arguments:*

`xml` object of class [XMLInternalNode-class](#) from **XML**

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

`SWEAbstractEncoding$clone(deep = FALSE)`

*Arguments:*

`deep` Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <[emmanuel.blondel1@gmail.com](mailto:emmanuel.blondel1@gmail.com)>

**References**

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

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SWEAbstractObject	<i>SWEAbstractObject</i>
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**Description**

SWEAbstractObject

SWEAbstractObject

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an SWE abstract object**Super classes**[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> SWEAbstractObject**Methods****Public methods:**

- [SWEAbstractObject\\$new\(\)](#)
- [SWEAbstractObject\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes an object of class [SWEAbstractObject](#)*Usage:*

```
SWEAbstractObject$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE,
  value_as_field = FALSE
)
```

*Arguments:*

```
xml object of class XMLInternalNode-class from XML
element element
attrs attrs
defaults defaults
wrap wrap
value_as_field whether value should be set as field
```

**Method** [clone\(\)](#): The objects of this class are cloneable with this method.

*Usage:*

```
SWEAbstractObject$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Note**

Class used internally by geometa

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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SWEAbstractSimpleComponent

*SWEAbstractSimpleComponent*

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**Description**

SWEAbstractSimpleComponent

SWEAbstractSimpleComponent

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE Abstract simple component

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject  
-> geometa::SWEAbstractSWE -> geometa::SWEAbstractSWEIdentifiable -> geometa::SWEAbstractDataComponent  
-> SWEAbstractSimpleComponent
```

**Public fields**

nilValues nil values

**Methods****Public methods:**

- [SWEAbstractSimpleComponent\\$new\(\)](#)
- [SWEAbstractSimpleComponent\\$setNilValues\(\)](#)
- [SWEAbstractSimpleComponent\\$clone\(\)](#)

**Method** `new()`: Initializes an object of class [SWEAbstractSimpleComponent](#)

*Usage:*

```
SWEAbstractSimpleComponent$new(  
  xml = NULL,  
  element = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
element element  
updatable updatable  
optional optional  
definition definition

**Method** `setNilValues()`: Set nil value and its reason (optional)

*Usage:*

```
SWEAbstractSimpleComponent$setNilValues(nilValue)
```

*Arguments:*

nilValue value to set as nil Value. object of class numeric

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
SWEAbstractSimpleComponent$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondell@gmail.com>

**References**

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

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SWEAbstractSWE

*SWEAbstractSWE*


---

### Description

SWEAbstractSWE

SWEAbstractSWE

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an SWE abstract SWE object

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
-> SWEAbstractSWE

### Methods

#### Public methods:

- [SWEAbstractSWE\\$new\(\)](#)
- [SWEAbstractSWE\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes an object of class [SWEAbstractSWE](#)

*Usage:*

```
SWEAbstractSWE$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  wrap = TRUE,
  value_as_field = FALSE
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
 element element  
 attrs attrs  
 defaults defaults  
 wrap wrap  
 value\_as\_field whether value should be set as field



**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
SWEAbstractSWE$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

### Note

Class used internally by geometa

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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SWEAbstractSWEIdentifiable  
*SWEAbstractSWEIdentifiable*

---

### Description

SWEAbstractSWEIdentifiable

SWEAbstractSWEIdentifiable

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an SWE abstract identifiable

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject  
-> geometa::SWEAbstractSWE -> SWEAbstractSWEIdentifiable
```

### Public fields

identifier identifier

label label

description description

**Methods****Public methods:**

- [SWEAbstractSWEIdentifiable\\$new\(\)](#)
- [SWEAbstractSWEIdentifiable\\$setIdentifier\(\)](#)
- [SWEAbstractSWEIdentifiable\\$setLabel\(\)](#)
- [SWEAbstractSWEIdentifiable\\$setDescription\(\)](#)
- [SWEAbstractSWEIdentifiable\\$clone\(\)](#)

**Method** `new()`: Initializes a SWE Nil Values object

*Usage:*

```
SWEAbstractSWEIdentifiable$new(  
  xml,  
  element = element,  
  attrs = list(),  
  defaults = list(),  
  wrap = TRUE,  
  value_as_field = TRUE  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
element element  
attrs attrs  
defaults defaults  
wrap wrap  
value\_as\_field value as field?

**Method** `setIdentifier()`: Set identifier

*Usage:*

```
SWEAbstractSWEIdentifiable$setIdentifier(identifier)
```

*Arguments:*

identifier identifier

**Method** `setLabel()`: Set label

*Usage:*

```
SWEAbstractSWEIdentifiable$setLabel(label)
```

*Arguments:*

label label

**Method** `setDescription()`: Set description

*Usage:*

```
SWEAbstractSWEIdentifiable$setDescription(description)
```

*Arguments:*

description description

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

SWEAbstractSWEIdentifiable.clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

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SWECategory

*SWECategory*

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### Description

SWECategory

SWECategory

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an SWE Category

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
 -> [geometa::SWEAbstractSWE](#) -> [geometa::SWEAbstractSWEIdentifiable](#) -> [geometa::SWEAbstractDataComponent](#)  
 -> [geometa::SWEAbstractSimpleComponent](#) -> SWECategory

### Public fields

codeSpace codeSpace

constraint constraint

value value

**Methods****Public methods:**

- [SWECategory\\$new\(\)](#)
- [SWECategory\\$setCodeSpace\(\)](#)
- [SWECategory\\$setConstraint\(\)](#)
- [SWECategory\\$setValue\(\)](#)
- [SWECategory\\$clone\(\)](#)

**Method** `new()`: Initializes an object of class [SWECategory](#)

*Usage:*

```
SWECategory$new(  
  xml = NULL,  
  codeSpace = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
codeSpace codeSpace  
constraint constraint  
value value  
updatable updatable  
optional optional  
definition definition

**Method** `setCodeSpace()`: `setCodeSpace`

*Usage:*

```
SWECategory$setCodeSpace(codeSpace)
```

*Arguments:*

codeSpace codeSpace

**Method** `setConstraint()`: `setConstraint`

*Usage:*

```
SWECategory$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method** `setValue()`: `setValue`

*Usage:*

```
SWECategory$setValue(value)
```

*Arguments:*

value value

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

SWECategory\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWECategoryRange

*SWECategoryRange*

---

### Description

SWECategoryRange

SWECategoryRange

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an SWE CategoryRange

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
 -> [geometa::SWEAbstractSWE](#) -> [geometa::SWEAbstractSWEIdentifiable](#) -> [geometa::SWEAbstractDataComponent](#)  
 -> [geometa::SWEAbstractSimpleComponent](#) -> SWECategoryRange

### Public fields

codeSpace codeSpace

constraint constraint

value value

**Methods****Public methods:**

- [SWECategoryRange\\$new\(\)](#)
- [SWECategoryRange\\$setCodeSpace\(\)](#)
- [SWECategoryRange\\$setConstraint\(\)](#)
- [SWECategoryRange\\$setValue\(\)](#)
- [SWECategoryRange\\$clone\(\)](#)

**Method** `new()`: Initializes an object of class [SWECategoryRange](#)

*Usage:*

```
SWECategoryRange$new(  
  xml = NULL,  
  codeSpace = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
codeSpace codeSpace  
constraint constraint  
value value  
updatable updatable  
optional optional  
definition definition

**Method** `setCodeSpace()`: `setCodeSpace`

*Usage:*

```
SWECategoryRange$setCodeSpace(codeSpace)
```

*Arguments:*

codeSpace codeSpace

**Method** `setConstraint()`: `setConstraint`

*Usage:*

```
SWECategoryRange$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method** `setValue()`: `setValue`

*Usage:*

```
SWECategoryRange$setValue(value)
```

*Arguments:*

value value

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

SWECategoryRange\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

### References

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWECount

*SWECount*

---

### Description

SWECount

SWECount

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an SWE Count

### Super classes

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
 -> [geometa::SWEAbstractSWE](#) -> [geometa::SWEAbstractSWEIdentifiable](#) -> [geometa::SWEAbstractDataComponent](#)  
 -> [geometa::SWEAbstractSimpleComponent](#) -> SWECount

### Public fields

constraint constraint

value value

**Methods****Public methods:**

- [SWECOUNT\\$new\(\)](#)
- [SWECOUNT\\$setConstraint\(\)](#)
- [SWECOUNT\\$setValue\(\)](#)
- [SWECOUNT\\$clone\(\)](#)

**Method** `new()`: Initializes an object of class [SWECOUNT](#)

*Usage:*

```
SWECOUNT$new(  
  xml = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from [XML](#)  
constraint constraint  
value value  
updatable updatable  
optional optional  
definition definition

**Method** `setConstraint()`: `setConstraint`

*Usage:*

```
SWECOUNT$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method** `setValue()`: `setValue`

*Usage:*

```
SWECOUNT$setValue(value)
```

*Arguments:*

value value

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
SWECOUNT$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.



**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWECountRange

*SWECountRange*

---

**Description**

SWECountRange

SWECountRange

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE CountRange

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject
-> geometa::SWEAbstractSWE -> geometa::SWEAbstractSWEIdentifiable -> geometa::SWEAbstractDataComponent
-> geometa::SWEAbstractSimpleComponent -> SWECountRange
```

**Public fields**

constraint constraint

value value

**Methods****Public methods:**

- `SWECountRange$new()`
- `SWECountRange$setConstraint()`
- `SWECountRange$setValue()`
- `SWECountRange$clone()`

**Method** `new()`: Initializes an object of class [SWECountRange](#)

*Usage:*

```
SWECountRange$new(  
  xml = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
constraint constraint  
value value  
updatable updatable  
optional optional  
definition definition

**Method** setConstraint(): setConstraint

*Usage:*

```
SWECountRange$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method** setValue(): setValue

*Usage:*

```
SWECountRange$setValue(value)
```

*Arguments:*

value value

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
SWECountRange$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

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SWEDataRecord	<i>SWEDataRecord</i>
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---

**Description**

SWEDataRecord  
SWEDataRecord

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE data record

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
-> [geometa::SWEAbstractSWE](#) -> [geometa::SWEAbstractSWEIdentifiable](#) -> [geometa::SWEAbstractDataComponent](#)  
-> SWEDataRecord

**Public fields**

field field

**Methods****Public methods:**

- [SWEDataRecord\\$new\(\)](#)
- [SWEDataRecord\\$addField\(\)](#)
- [SWEDataRecord\\$delField\(\)](#)
- [SWEDataRecord\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes an object of class [SWEDataRecord](#)

*Usage:*

```
SWEDataRecord$new(  
  xml = NULL,  
  element = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from [XML](#)  
element element

updatable updatable  
 optional optional  
 definition definition

**Method** addField(): Adds field

*Usage:*

SWEDataRecord\$addField(field)

*Arguments:*

field field

**Method** delField(): Deletes field

*Usage:*

SWEDataRecord\$delField(field)

*Arguments:*

field field

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

SWEDataRecord\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

#### Note

Class used internally by geometa

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWEElement

*SWEElement*

---

#### Description

SWEElement

SWEElement

#### Format

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an GML element

**Methods**

`new(xml, element, attrs, defaults)` This method is used to instantiate a GML element

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
-> SWEElement

**Methods****Public methods:**

- [SWEElement\\$new\(\)](#)
- [SWEElement\\$decode\(\)](#)
- [SWEElement\\$clone\(\)](#)

**Method** `new()`: Initializes a generic abstract SWE element

*Usage:*

```
SWEElement$new(
  xml = NULL,
  element = NULL,
  attrs = list(),
  defaults = list(),
  xmlNamespacePrefix = "SWE"
)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#) from **XML**  
`element` element  
`attrs` attrs  
`defaults` defaults  
`xmlNamespacePrefix` XML namespace prefix. Default is "SWE"

**Method** `decode()`: Decodes object from XML

*Usage:*

```
SWEElement$decode(xml)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#) from **XML**

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
SWEElement$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

**Note**

Class used by geometa internal XML decoder/encoder

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

ISO/TS 19103:2005 Geographic information – Conceptual schema language

---

SWENilValues

*SWENilValues*

---

**Description**

SWENilValues

SWENilValues

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE nil values object

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
-> [geometa::SWEAbstractSWE](#) -> SWENilValues

**Public fields**

nilValue nil value

**Methods****Public methods:**

- [SWENilValues\\$new\(\)](#)
- [SWENilValues\\$addNilValue\(\)](#)
- [SWENilValues\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes a SWE Nil Values object

*Usage:*

[SWENilValues\\$new\(xml = NULL\)](#)

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**

**Method** addNilValue(): Adds a nil value with a reason

*Usage:*

SWENilValues\$addNilValue(value, reason)

*Arguments:*

value value

reason reason

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

SWENilValues\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWEQuantity

*SWEQuantity*

---

**Description**

SWEQuantity

SWEQuantity

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE Quantity

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
 -> [geometa::SWEAbstractSWE](#) -> [geometa::SWEAbstractSWEIdentifiable](#) -> [geometa::SWEAbstractDataComponent](#)  
 -> [geometa::SWEAbstractSimpleComponent](#) -> SWEQuantity

**Public fields**

uom uom  
constraint constraint  
value value

**Methods****Public methods:**

- [SWEQuantity\\$new\(\)](#)
- [SWEQuantity\\$setUom\(\)](#)
- [SWEQuantity\\$setConstraint\(\)](#)
- [SWEQuantity\\$setValue\(\)](#)
- [SWEQuantity\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes an object of class [SWEQuantity](#)

*Usage:*

```
SWEQuantity$new(  
  xml = NULL,  
  uom = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from [XML](#)  
uom uom  
constraint constraint  
value value  
updatable updatable  
optional optional  
definition definition

**Method** [setUom\(\)](#): [setUom](#)

*Usage:*

```
SWEQuantity$setUom(uom)
```

*Arguments:*

uom uom

**Method** [setConstraint\(\)](#): [setConstraint](#)

*Usage:*

```
SWEQuantity$setConstraint(constraint)
```



*Arguments:*

constraint constraint

**Method** setValue(): setValue

*Usage:*

SWEQuantity\$setValue(value)

*Arguments:*

value value

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

SWEQuantity\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWEQuantityRange

*SWEQuantityRange*

---

**Description**

SWEQuantityRange

SWEQuantityRange

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an SWE QuantityRange

**Super classes**

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject  
-> geometa::SWEAbstractSWE -> geometa::SWEAbstractSWEIdentifiable -> geometa::SWEAbstractDataComponent  
-> geometa::SWEAbstractSimpleComponent -> SWEQuantityRange
```

**Public fields**

uom uom  
 constraint constraint  
 value value

**Methods****Public methods:**

- [SWEQuantityRange\\$new\(\)](#)
- [SWEQuantityRange\\$setUom\(\)](#)
- [SWEQuantityRange\\$setConstraint\(\)](#)
- [SWEQuantityRange\\$setValue\(\)](#)
- [SWEQuantityRange\\$clone\(\)](#)

**Method new():** Initializes an object of class [SWEQuantityRange](#)

*Usage:*

```
SWEQuantityRange$new(  
  xml = NULL,  
  uom = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from **XML**  
 uom uom  
 constraint constraint  
 value value  
 updatable updatable  
 optional optional  
 definition definition

**Method setUom():** setUom

*Usage:*

```
SWEQuantityRange$setUom(uom)
```

*Arguments:*

uom uom

**Method setConstraint():** setConstraint

*Usage:*

```
SWEQuantityRange$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method** setValue(): setValue*Usage:*

SWEQuantityRange\$setValue(value)

*Arguments:*

value value

**Method** clone(): The objects of this class are cloneable with this method.*Usage:*

SWEQuantityRange\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel &lt;emmanuel.blondel1@gmail.com&gt;

**References**SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

SWEText

*SWEText***Description**

SWEText

SWEText

**Format**[R6Class](#) object.**Value**Object of [R6Class](#) for modelling an SWE Text**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject
-> geometa::SWEAbstractSWE -> geometa::SWEAbstractSWEIdentifiable -> geometa::SWEAbstractDataComponent
-> geometa::SWEAbstractSimpleComponent -> SWEText

```

**Public fields**

constraint constraint  
value value

**Methods****Public methods:**

- [SWEText\\$new\(\)](#)
- [SWEText\\$setConstraint\(\)](#)
- [SWEText\\$setValue\(\)](#)
- [SWEText\\$clone\(\)](#)

**Method new():** Initializes an object of class [SWEText](#)

*Usage:*

```
SWEText$new(  
  xml = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from [XML](#)  
constraint constraint  
value value  
updatable updatable  
optional optional  
definition definition

**Method setConstraint():** setConstraint

*Usage:*

```
SWEText$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method setValue():** setValue

*Usage:*

```
SWEText$setValue(value)
```

*Arguments:*

value value

**Method clone():** The objects of this class are cloneable with this method.

*Usage:*

```
SWEText$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

**References**

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWETextEncoding	<i>SWETextEncoding</i>
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---

**Description**

SWETextEncoding

SWETextEncoding

**Format**

[R6Class](#) object.

**Value**

Object of [R6Class](#) for modelling an SWE text encoding object

**Super classes**

[geometa::geometaLogger](#) -> [geometa::ISOAbstractObject](#) -> [geometa::SWEAbstractObject](#)  
-> [geometa::SWEAbstractSWE](#) -> [geometa::SWEAbstractEncoding](#) -> SWETextEncoding

**Methods****Public methods:**

- [SWETextEncoding\\$new\(\)](#)
- [SWETextEncoding\\$clone\(\)](#)

**Method new():** Initializes a SWE Text Encoding element

*Usage:*

```
SWETextEncoding$new(  
  xml = NULL,  
  collapseWhiteSpaces = TRUE,  
  decimalSeparator = ".",  
  tokenSeparator = NULL,  
  blockSeparator = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from [XML](#)

`collapseWhiteSpaces` Indicates whether white spaces (i.e. space, tab, CR, LF) should be collapsed with separators when parsing the data stream. Default is TRUE

`decimalSeparator` Character used as the decimal separator. Default is TRUE

`tokenSeparator` Character sequence used as the token separator (i.e. between two successive values). Required

`blockSeparator` Character sequence used as the block separator (i.e. between two successive blocks in the data set. The end of a block is reached once all values from the data tree have been encoded once). Required

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
SWETextEncoding$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

### Author(s)

Emmanuel Blondel <emmanuel.blondell@gmail.com>

### References

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWETime

*SWETime*

---

### Description

SWETime

SWETime

### Format

[R6Class](#) object.

### Value

Object of [R6Class](#) for modelling an SWE Time

### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject
-> geometa::SWEAbstractSWE -> geometa::SWEAbstractSWEIdentifiable -> geometa::SWEAbstractDataComponent
-> geometa::SWEAbstractSimpleComponent -> SWETime
```

**Public fields**

uom uom  
constraint constraint  
value value

**Methods****Public methods:**

- [SWETime\\$new\(\)](#)
- [SWETime\\$setUom\(\)](#)
- [SWETime\\$setConstraint\(\)](#)
- [SWETime\\$setValue\(\)](#)
- [SWETime\\$clone\(\)](#)

**Method** `new()`: Initializes an object of class [SWETime](#)

*Usage:*

```
SWETime$new(  
  xml = NULL,  
  uom = NULL,  
  constraint = NULL,  
  value = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from [XML](#)  
uom uom  
constraint constraint  
value value  
updatable updatable  
optional optional  
definition definition

**Method** `setUom()`: setUom

*Usage:*

```
SWETime$setUom(uom)
```

*Arguments:*

uom uom

**Method** `setConstraint()`: setConstraint

*Usage:*

```
SWETime$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method** setValue(): setValue*Usage:*

SWETime\$setValue(value)

*Arguments:*

value value

**Method** clone(): The objects of this class are cloneable with this method.*Usage:*

SWETime\$clone(deep = FALSE)

*Arguments:*

deep Whether to make a deep clone.

**Author(s)**

Emmanuel Blondel &lt;emmanuel.blondel1@gmail.com&gt;

**References**SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>


---

 SWETimeRange

---

*SWETimeRange*


---

**Description**

SWETimeRange

SWETimeRange

**Format**

R6Class object.

**Value**

Object of R6Class for modelling an SWE Time Range

**Super classes**

```

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject
-> geometa::SWEAbstractSWE -> geometa::SWEAbstractSWEIdentifiable -> geometa::SWEAbstractDataComponent
-> geometa::SWEAbstractSimpleComponent -> SWETimeRange

```



**Public fields**

uom uom  
constraint constraint  
value value

**Methods****Public methods:**

- [SWETimeRange\\$new\(\)](#)
- [SWETimeRange\\$setUom\(\)](#)
- [SWETimeRange\\$setConstraint\(\)](#)
- [SWETimeRange\\$setValue\(\)](#)
- [SWETimeRange\\$clone\(\)](#)

**Method** [new\(\)](#): Initializes an object of class [SWETimeRange](#)

*Usage:*

```
SWETimeRange$new(  
  xml = NULL,  
  uom = NULL,  
  constraint = NULL,  
  start = NULL,  
  end = NULL,  
  updatable = NULL,  
  optional = FALSE,  
  definition = NULL  
)
```

*Arguments:*

xml object of class [XMLInternalNode-class](#) from [XML](#)  
uom uom  
constraint constraint  
start start time  
end end time  
updatable updatable  
optional optional  
definition definition

**Method** [setUom\(\)](#): setUom

*Usage:*

```
SWETimeRange$setUom(uom)
```

*Arguments:*

uom uom

**Method** [setConstraint\(\)](#): setConstraint

*Usage:*

```
SWETimeRange$setConstraint(constraint)
```

*Arguments:*

constraint constraint

**Method** setValue(): setValue

*Usage:*

```
SWETimeRange$setValue(start, end)
```

*Arguments:*

start start time

end end time

**Method** clone(): The objects of this class are cloneable with this method.

*Usage:*

```
SWETimeRange$clone(deep = FALSE)
```

*Arguments:*

deep Whether to make a deep clone.

#### Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

#### References

SWE Common Data Model Encoding Standard. <https://www.ogc.org/standards/swecommon>

---

SWEXMLEncoding

*SWEXMLEncoding*

---

#### Description

SWEXMLEncoding

SWEXMLEncoding

#### Format

[R6Class](#) object.

#### Value

Object of [R6Class](#) for modelling an SWE XML encoding object

#### Super classes

```
geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::SWEAbstractObject  
-> geometa::SWEAbstractSWE -> geometa::SWEAbstractEncoding -> SWEXMLEncoding
```

**Methods****Public methods:**

- [SWEXMLEncoding\\$new\(\)](#)
- [SWEXMLEncoding\\$clone\(\)](#)

**Method** `new()`: Initializes a SWE XML Encoding element

*Usage:*

```
SWEXMLEncoding$new(xml = NULL)
```

*Arguments:*

`xml` object of class [XMLInternalNode-class](#) from **XML**

**Method** `clone()`: The objects of this class are cloneable with this method.

*Usage:*

```
SWEXMLEncoding$clone(deep = FALSE)
```

*Arguments:*

`deep` Whether to make a deep clone.

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