Package: geometa (via r-universe)

September 29, 2026

Type Package

Title Tools for Reading and Writing ISO/OGC Geographic Metadata

Version 0.10.1

Date 2026-06-25

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 and ISO 19115-3 (XML) standard technical specifications. 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 (>= 3.5)

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

Suggests sf, ncdf4, EML, emld, units, testthat, roxygen2

License MIT + file LICENSE

URL https://github.com/eblondel/geometa/wiki

BugReports https://github.com/eblondel/geometa/issues

LazyLoad yes

Encoding UTF-8

RoxygenNote 7.3.3

Roxygen list(r6 = TRUE)

LazyData true

Config/pak/sysreqs libsecret-1-dev libxml2-dev libssl-dev libx11-dev

Repository https://eblondel.r-universe.dev

Date/Publication 2026-09-29 14:23:47 UTC

RemoteUrl https://github.com/eblondel/geometa

RemoteRef HEAD

RemoteSha 70f34626f3eb48ec52c508bfed15612eddd8aee6

Contents

cacheISOClasses . . . 12
codelists . . . 12
convert_metadata . . . 13
geometa . . . 14
geometa_coverage . . . 14
geometaLogger . . . 15
getClassesInheriting . . . 16
getGeometaOption . . . 17
getGeometaOptions . . . 17
getIANAMimeTypes . . . 18
getISOClasses . . . 18
getISOCodelist . . . 19
getISOCodelists . . . 19
getISOInternalCodelists . . . 20
getISOMetadataNamespace . . . 20
getISOMetadataNamespaces . . . 21
getISOMetadataSchemaFile . . . 21
getISOMetadataSchemas . . . 22
getMappingFormats . . . 22
getMappings . . . 23
getMetadataStandard . . . 23
GMLAbstractCoordinateOperation . . . 24
GMLAbstractCoordinateSystem . . . 26
GMLAbstractCoverage . . . 28
GMLAbstractCRS . . . 30
GMLAbstractCurve . . . 31
GMLAbstractDiscreteCoverage . . . 32
GMLAbstractFeature . . . 34
GMLAbstractGeneralConversion . . . 35
GMLAbstractGeneralDerivedCRS . . . 37
GMLAbstractGeneralOperationParameter . . . 38
GMLAbstractGeneralParameterValue . . . 39
GMLAbstractGeometricAggregate . . . 40
GMLAbstractGeometricPrimitive . . . 41
GMLAbstractGeometry . . . 42
GMLAbstractGML . . . 44
GMLAbstractImplicitGeometry . . . 46
GMLAbstractObject . . . 48
GMLAbstractReferenceableGrid . . . 49
GMLAbstractRing . . . 50
GMLAbstractSingleCRS . . . 51

GMLAbstractSingleOperation 52
GMLAbstractSurface 53
GMLAbstractTimeGeometricPrimitive 54
GMLAbstractTimeObject 55
GMLAbstractTimePrimitive 56
GMLAffineCS 58
GMLBaseUnit 59
GMLCartesianCS 61
GMLCodeType 62
GMLCompoundCRS 63
GMLConventionalUnit 65
GMLConversion 67
GMLCoordinateSystemAxis 69
GMLCOVAbstractCoverage 71
GMLCOVExtension 72
GMLCylindricalCS 74
GMLDefinition 75
GMLDerivedCRS 76
GMLDerivedUnit 78
GMLElement 80
GMLEllipsoidalCS 81
GMLEnvelope 82
GMLEnvelopeWithTimePeriod 84
GMLGeneralGridAxis 86
GMLGeodeticCRS 88
GMLGrid 90
GMLGridCoverage 92
GMLGridEnvelope 94
GMLGridFunction 95
GMLLinearCS 97
GMLLinearRing 98
GMLLineString 99
GMLMultiCurve 100
GMLMultiCurveCoverage 102
GMLMultiPoint 103
GMLMultiPointCoverage 105
GMLMultiSolidCoverage 106
GMLMultiSurface 108
GMLMultiSurfaceCoverage 109
GMLObliqueCartesianCS 111
GMLOperationMethod 112
GMLOperationParameter 114
GMLOperationParameterGroup 115
GMLParameterValue 116
GMLParameterValueGroup 119
GMLPoint 121
GMLPolarCS 122
GMLPolygon 123

GMLProjectedCRS . . . 124
GMLRectifiedGrid . . . 126
GMLRectifiedGridCoverage . . . 128
GMLReferenceableGridByArray . . . 129
GMLReferenceableGridByTransformation . . . 131
GMLReferenceableGridByVectors . . . 132
GMLSphericalCS . . . 134
GMLTemporalCRS . . . 135
GMLTemporalCS . . . 136
GMLTimeCS . . . 137
GMLTimeInstant . . . 138
GMLTimePeriod . . . 140
GMLUnitDefinition . . . 142
GMLUserDefinedCS . . . 144
GMLVerticalCRS . . . 145
GMLVerticalCS . . . 146
INSPIREMetadataValidator . . . 147
ISOAbsoluteExternalPositionalAccuracy . . . 150
ISOAbstractAcquisitionInformation . . . 151
ISOAbstractAggregate . . . 152
ISOAbstractApplicationSchemaInformation . . . 155
ISOAbstractCarrierOfCharacteristics . . . 156
ISOAbstractCatalogue . . . 158
ISOAbstractCitation . . . 161
ISOAbstractCompleteness . . . 162
ISOAbstractConstraints . . . 163
ISOAbstractContentInformation . . . 164
ISOAbstractDataEvaluation . . . 165
ISOAbstractDataQuality . . . 168
ISOAbstractDistribution . . . 169
ISOAbstractExtent . . . 170
ISOAbstractFeatureCatalogue . . . 171
ISOAbstractFeatureType . . . 172
ISOAbstractFormat . . . 173
ISOAbstractGenericName . . . 174
ISOAbstractLineageInformation . . . 175
ISOAbstractLogicalConsistency . . . 176
ISOAbstractMaintenanceInformation . . . 177
ISOAbstractMDContentInformation . . . 178
ISOAbstractMetadata . . . 179
ISOAbstractMetadataExtension . . . 180
ISOAbstractMetaquality . . . 181
ISOAbstractObject . . . 182
ISOAbstractOnlineResource . . . 190
ISOAbstractParameter . . . 191
ISOAbstractParty . . . 194
ISOAbstractPlatform . . . 196
ISOAbstractPortrayalCatalogueInformation . . . 197

ISOAbstractPositionalAccuracy . . . 198
ISOAbstractPropertyType . . . 199
ISOAbstractQualityElement . . . 201
ISOAbstractReferenceSystem . . . 203
ISOAbstractResourceDescription . . . 204
ISOAbstractResponsibility . . . 205
ISOAbstractResult . . . 206
ISOAbstractRSReferenceSystem . . . 207
ISOAbstractSpatialRepresentation . . . 209
ISOAbstractSpatialResolution . . . 210
ISOAbstractStandardOrderProcess . . . 211
ISOAbstractTemporalAccuracy . . . 212
ISOAbstractTemporalQuality . . . 213
ISOAbstractThematicAccuracy . . . 214
ISOAbstractTypedDate . . . 215
ISOAccuracyOfATimeMeasurement . . . 216
ISOAddress . . . 217
ISOAggregateInformation . . . 220
ISOAggregationDerivation . . . 223
ISOAnchor . . . 224
ISOAngle . . . 225
ISOApplicationSchemaInformation . . . 226
ISOAssociatedResource . . . 228
ISOAssociation . . . 230
ISOAssociationRole . . . 231
ISOAssociationType . . . 234
ISOAttributeGroup . . . 235
ISOAttributes . . . 237
ISOBand . . . 238
ISOBaseBoolean . . . 241
ISOBaseCharacterString . . . 242
ISOBaseDate . . . 243
ISOBaseDateTime . . . 244
ISOBaseDecimal . . . 245
ISOBaseInteger . . . 246
ISOBaseReal . . . 247
ISOBinary . . . 248
ISOBinding . . . 250
ISOBoundAssociationRole . . . 251
ISOBoundFeatureAttribute . . . 252
ISOBoundingPolygon . . . 253
ISOBrowseGraphic . . . 255
ISOCarrierOfCharacteristics . . . 257
ISOCellGeometry . . . 258
ISOCharacterSet . . . 259
ISOCitation . . . 260
ISOCitationSeries . . . 267
ISOClassification . . . 268

ISOCodeDefinition . . . 270
ISOCodelist . . . 271
ISOCodelistCatalogue . . . 273
ISOCodeListDictionary . . . 274
ISOCodeListValue . . . 276
ISOCompletenessCommission . . . 278
ISOCompletenessOmission . . . 279
ISOConceptualConsistency . . . 280
ISOConfidence . . . 282
ISOConformanceResult . . . 283
ISOConstraint . . . 285
ISOConstraints . . . 286
ISOContact . . . 290
ISOCountry . . . 294
ISOCoupledResource . . . 295
ISOCouplingType . . . 296
ISOCoverageContentType . . . 298
ISOCoverageDescription . . . 299
ISOCTCodelistValue . . . 301
ISODataFile . . . 303
ISODataIdentification . . . 305
ISODataIdentification19115_3 . . . 306
ISODataIdentification19139 . . . 308
ISODataInspection . . . 314
ISODataQuality . . . 316
ISODataQualityAbstractElement . . . 319
ISODataQualityScope . . . 323
ISODataSet . . . 325
ISODatatype . . . 327
ISODate . . . 328
ISODateType . . . 330
ISODCPList . . . 331
ISODefinitionReference . . . 332
ISODefinitionSource . . . 333
ISODescriptiveResult . . . 335
ISODigitalTransferOptions . . . 336
ISODimension . . . 340
ISODimensionNameType . . . 341
ISODistance . . . 343
ISODistribution . . . 344
ISODistributionUnits . . . 346
ISODistributor . . . 348
ISODomainConsistency . . . 351
ISOElementSequence . . . 352
ISOEvaluationMethod . . . 353
ISOEvaluationMethodType . . . 356
ISOExtendedElementInformation . . . 357
ISOExtent . . . 362

ISOFeatureAssociation . . . 365
ISOFeatureAssociation19115_3 . . . 366
ISOFeatureAssociation19139 . . . 368
ISOFeatureAttribute . . . 369
ISOFeatureCatalogue . . . 372
ISOFeatureCatalogueDescription . . . 376
ISOFeatureOperation . . . 379
ISOFeatureType . . . 381
ISOFeatureType19115_3 . . . 382
ISOFeatureType19139 . . . 388
ISOFeatureTypeInfo . . . 393
ISOFileName . . . 395
ISOFormat . . . 396
ISOFormatConsistency . . . 399
ISOFreeText . . . 400
ISOFullInspection . . . 402
ISOGeographicBoundingBox . . . 403
ISOGeographicDescription . . . 405
ISOGeographicExtent . . . 406
ISOGeometricObjects . . . 407
ISOGeometricObjectType . . . 409
ISOGeorectified . . . 410
ISOGeoreferenceable . . . 413
ISOGriddedDataPositionalAccuracy . . . 416
ISOGridSpatialRepresentation . . . 417
ISOHomogeneity . . . 420
ISOIdentification . . . 421
ISOIdentification19115_3 . . . 422
ISOIdentification19139 . . . 430
ISOImageDescription . . . 437
ISOImageryAbstractGeolocationInformation . . . 441
ISOImageryAcquisitionInformation . . . 442
ISOImageryAlgorithm . . . 446
ISOImageryBand . . . 448
ISOImageryBandDefinition . . . 451
ISOImageryContext . . . 452
ISOImageryCoverageDescription . . . 453
ISOImageryCoverageResult . . . 455
ISOImageryEnvironmentalRecord . . . 458
ISOImageryEvent . . . 460
ISOImageryGCP . . . 464
ISOImageryGCPCollection . . . 465
ISOImageryGeometryType . . . 467
ISOImageryGeorectified . . . 469
ISOImageryGeoreferenceable . . . 470
ISOImageryImageDescription . . . 472
ISOImageryInstrument . . . 474
ISOImageryMetadata . . . 478

ISOImageryNominalResolution . . . 485
ISOImageryObjective . . . 487
ISOImageryObjectiveType . . . 491
ISOImageryOperation . . . 493
ISOImageryOperationType . . . 497
ISOImageryPlan . . . 498
ISOImageryPlatform . . . 502
ISOImageryPlatformPass . . . 506
ISOImageryPolarisationOrientation . . . 508
ISOImageryPriority . . . 509
ISOImageryProcessing . . . 510
ISOImageryProcessStep . . . 514
ISOImageryProcessStepReport . . . 518
ISOImageryRangeElementDescription . . . 520
ISOImageryRequestedDate . . . 522
ISOImageryRequirement . . . 523
ISOImageryRevision . . . 528
ISOImagerySensor . . . 529
ISOImagerySensorType . . . 531
ISOImagerySequence . . . 532
ISOImagerySource . . . 533
ISOImageryTransferFunctionType . . . 535
ISOImageryTrigger . . . 536
ISOImageryUsability . . . 537
ISOImagingCondition . . . 538
ISOIndirectEvaluation . . . 539
ISOIndividual . . . 540
ISOInheritanceRelation . . . 541
ISOInitiative . . . 543
ISOInitiativeType . . . 544
ISOInstrumentationEvent . . . 546
ISOInstrumentationEventList . . . 549
ISOInstrumentationEventType . . . 551
ISOKeywordClass . . . 552
ISOKeywords . . . 554
ISOKeywordType . . . 557
ISOLanguage . . . 558
ISOLegalConstraints . . . 559
ISOLength . . . 562
ISOLineage . . . 563
ISOListedValue . . . 565
ISOLocale . . . 567
ISOLocaleContainer . . . 570
ISOLocalisedCharacterString . . . 573
ISOLocalName . . . 574
ISOMaintenanceFrequency . . . 575
ISOMaintenanceInformation . . . 576
ISOMDFeatureCatalogue . . . 578

ISOMeasure 579
ISOMeasureReference 580
ISOMedium 582
ISOMediumFormat 585
ISOMediumName 586
ISOMemberName 587
ISOMetadata 589
ISOMetadataExtensionInformation 607
ISOMetadataNamespace 609
ISOMetadataScope 611
ISOMetaIdentifier 612
ISOMimeFileType 615
ISOMLCodeDefinition 616
ISOMLCodeListDictionary 617
ISOMultiplicity 618
ISOMultiplicityRange 620
ISONonQuantitativeAttributeAccuracy 621
ISONonQuantitativeAttributeCorrectness 622
ISOObligation 623
ISOOnLineFunction 624
ISOOnlineResource 625
ISOOperationChainMetadata 628
ISOOperationMetadata 630
ISOOrganisation 633
ISOOtherAggregate 635
ISOParameterDirection 636
ISOPeriodDuration 637
ISOPixelOrientation 639
ISOPlatform 640
ISOPortrayalCatalogueReference 641
ISOPresentationForm 643
ISOProcessParameter 644
ISOProcessStep 645
ISOProductionSeries 648
ISOProgress 649
ISOPropertyType 650
ISOQualityResultFile 651
ISOQuantitativeAttributeAccuracy 653
ISOQuantitativeResult 654
ISORangeDimension 657
ISORecord 659
ISORecordType 660
ISOReferenceIdentifier 661
ISOReferenceSystem 663
ISOReferenceSystemType 664
ISOReleasability 666
ISORepresentativeFraction 668
ISORepresentativity 669

ISOResolution . . . 670
ISOResponsibility . . . 672
ISOResponsibleParty . . . 674
ISORestriction . . . 676
ISORole . . . 678
ISORoleType . . . 679
ISOSampleBasedInspection . . . 680
ISOSampleDimension . . . 681
ISOScale . . . 684
ISOScope . . . 686
ISOScopeCode . . . 688
ISOScopeDescription . . . 689
ISOScopedName . . . 692
ISOSecurityConstraints . . . 693
ISOSensor . . . 695
ISOSeries . . . 696
ISOServiceIdentification . . . 698
ISOServiceIdentification19115_3 . . . 700
ISOServiceIdentification19139 . . . 701
ISOSource . . . 702
ISOSpatialRepresentation . . . 705
ISOSpatialRepresentationType . . . 706
ISOSpatialTemporalExtent . . . 707
ISOSRVParameter . . . 709
ISOSRVParameterDirection . . . 712
ISOSRVServiceIdentification . . . 713
ISOSRVServiceIdentification19115_3 . . . 721
ISOSRVServiceIdentification19139 . . . 725
ISOStandaloneQualityReportInformation . . . 729
ISOStandardOrderProcess . . . 731
ISOStatus . . . 733
ISOStereoMate . . . 734
ISOTelephone . . . 736
ISOTelephoneType . . . 738
ISOTemporalConsistency . . . 739
ISOTemporalExtent . . . 740
ISOTemporalValidity . . . 742
ISOThematicClassificationCorrectness . . . 743
ISOTopicCategory . . . 744
ISOTopologicalConsistency . . . 745
ISOTopologyLevel . . . 747
ISOTypeName . . . 748
ISOUnlimitedInteger . . . 749
ISOUomIdentifier . . . 750
ISOURI . . . 751
ISOURL . . . 752
ISOUsabilityElement . . . 754
ISOUsage . . . 755

ISOVectorSpatialRepresentation . . . 757
ISOVerticalExtent . . . 759
parseISOCodelists . . . 761
pivot_converter . . . 761
pivot_format . . . 762
readISO . . . 764
readISO19139 . . . 764
registerISOCodelist . . . 765
registerISOMetadataNamespace . . . 766
registerISOMetadataSchema . . . 767
registerMappingFormat . . . 767
registerMappings . . . 768
setGeometaOption . . . 768
setIANAMimeTypes . . . 769
setISOCodelists . . . 769
setISOMetadataNamespaces . . . 770
setISOMetadataSchemas . . . 770
setMappingFormats . . . 771
setMetadataStandard . . . 771
SWEAbstractDataComponent . . . 772
SWEAbstractEncoding . . . 774
SWEAbstractObject . . . 775
SWEAbstractSimpleComponent . . . 776
SWEAbstractSWE . . . 778
SWEAbstractSWEIdentifiable . . . 779
SWECategory . . . 781
SWECategoryRange . . . 783
SWECount . . . 785
SWECountRange . . . 787
SWEDataRecord . . . 789
SWEElement . . . 790
SWENilValues . . . 792
SWEQuantity . . . 793
SWEQuantityRange . . . 795
SWEText . . . 797
SWETextEncoding . . . 799
SWETime . . . 800
SWETimeRange . . . 802
SWEXMLEncoding . . . 804

Index **806**

cacheISOClasses *cacheISOClasses*

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()
```

codelists *A named list of ISO codelists by standard (ISO 19139/ISO 19115-3)*

Description

A named list of ISO codelists by standard (ISO 19139/ISO 19115-3)

Usage

```
codelists
```

Format

a named list by standard (19139 / 19115-3). Each list is then a named list of all ISO Codelists for this standard.

convert_metadata *convert_metadata*

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 **geometa**. The object should be a valid id as listed by getMappingFormats, supported as source format (from is TRUE).
from	a valid mapping format id (see getMappingFormats) that indicates the metadata model / format used for the argument obj
to	a valid mapping format id (see getMappingFormats) 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 getMappings.
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 and ISO 19115-3 (XML) standard technical specifications. 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)

Other contributors:

- R Consortium [funder]

See Also

Useful links:

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

`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(version)
```

Arguments

`version`	main metadata standard version

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(version = "19115-3")
```

`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

`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 ISO classes, ie classes extending ISOAbstractObject super class, including classes eventually defined outside **geometa**. In case the latter is on the search path, the list of ISO classes will be cached for optimized used by **geometa** encoder/decoder.

Usage

```
getISOClasses()
```

Author(s)

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

Examples

```
getISOClasses()
```

getISOCodelist *getISOCodelist*

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 *getISOCodelists*

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(version)
```

Arguments

`version`	the metadata standard version. If `NULL` (default), all codelists will be listed

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()
```

getISOMetadataSchemaFile *getISOMetadataSchemaFile*

Description

getISOMetadataSchemaFile allows to get the schema file in **geometa**

Usage

```
getISOMetadataSchemaFile(version)
```

Arguments

version	the schema version

Value

the internal path to the schema file

Author(s)

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

getISOMetadataSchemas *getISOMetadataSchemas*

Description

`getISOMetadataSchemas` gets the schemas registered in **geometa**

Usage

```
getISOMetadataSchemas(version)
```

Arguments

`version`	the schema version

Examples

```
getISOMetadataSchemas(version = "19139")
```

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

getMetadataStandard *getMetadataStandard*

Description

`getMetadataStandard` allows to set the standard to use for encoding/decoding in **geometa**.

Usage

```
getMetadataStandard()
```

Author(s)

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

Examples

```
getMetadataStandard()
```

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

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

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
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

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

---

`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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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 (orGMLCoverageMappingRule, 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
OGC Geography Markup Language. http://www.opengeospatial.org/standards/gml

---

`GMLAbstractFeature` *GMLAbstractFeature*

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t

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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t

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

GMLAbstractObject *GMLAbstractObject*

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

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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t

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

---

`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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t

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

---

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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t

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

---

`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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t

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

---

`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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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

---

GMLCompoundCRS *GMLCompoundCRS*

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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 . Defaut 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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 maxium 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

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>

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 <emmanuel.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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 bouding 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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 bouding 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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

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

---

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

GMLGridEnvelope *GMLGridEnvelope*

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 bouding 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

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

---

`GMLGridFunction` *GMLGridFunction*

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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
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

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

---

`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

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
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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t
OGC Geography Markup Language. http://www.opengeospatial.org/standards/gml

---

`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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t
OGC Geography Markup Language. http://www.opengeospatial.org/standards/gml

GMLMultiSurface *GMLMultiSurface*

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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

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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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

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

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

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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. http://www.iso.org/iso/iso_catalogue/catalogue_t

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

GMLRectifiedGrid *GMLRectifiedGrid*

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

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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.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

---

`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.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

---

`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

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

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

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>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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|character|Date|POSIXt]

Methods

Public methods:

- `GMLTimeInstant$new()`
- `GMLTimeInstant$setTimePosition()`
- `GMLTimeInstant$toISOFormat()`
- `GMLTimeInstant$clone()`

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

Usage:

```
GMLTimeInstant$new(xml = NULL, timePosition = NULL)
```

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 = NULL,
  frame = NULL,
  calendarEraName = NULL,
  indeterminatePosition = NULL
)
```

Arguments:

`timePosition` object of class "numeric", "POSIXct"/"POSIXt" or "Date"

`frame` frame attribute

`calendarEraName` calendarEraName attribute

`indeterminatePosition` indeterminatePosition attribute

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>

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 = NULL,
  frame = NULL,
  calendarEraName = NULL,
  indeterminatePosition = NULL
)
```

Arguments:

`beginPosition` object of class numeric, Date or POSIXct-class

`frame` frame attribute

`calendarEraName` calendarEraName attribute

`indeterminatePosition` indeterminatePosition attribute

Method `setEndPosition()`: Set end position

Usage:

```
GMLTimePeriod$setEndPosition(
  endPosition = NULL,
  frame = NULL,
  calendarEraName = NULL,
  indeterminatePosition = NULL
)
```

Arguments:

`endPosition` object of class numeric, Date or POSIXct-class

`frame` frame attribute

`calendarEraName` calendarEraName attribute

`indeterminatePosition` indeterminatePosition attribute

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` *GMLUnitDefinition*

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.blondel1@gmail.com>

References

ISO 19136:2007 Geographic Information – Geographic Markup Language. 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 *GMLUserDefinedCS*

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

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

---

`GMLVerticalCRS` *GMLVerticalCRS*

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

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

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

`status` status

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-api",
  apiKey = NULL,
  keyring_backend = "env"
)
```

Arguments:

`url` url

`apiKey` API key. Default is `NULL`.

`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$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Note

Starting 2025-05-02, The API key is not needed anymore and metadata can be then validated as anonymous user.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@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::ISOAbstractQualityElement -> 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>

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()
```

ISOAbstractAcquisitionInformation

ISOAbstractAcquisitionInformation

Description

ISOAbstractAcquisitionInformation

ISOAbstractAcquisitionInformation

Format

R6Class object.

Value

Object of R6Class for modelling an ISO acquisition information

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractAcquisitionInformation

Methods

Public methods:

- ISOAbstractAcquisitionInformation$new()
- ISOAbstractAcquisitionInformation$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractAcquisitionInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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

`ISOAbstractApplicationSchemaInformation`
ISOAbstractApplicationSchemaInformation

Description

ISOAbstractApplicationSchemaInformation

ISOAbstractApplicationSchemaInformation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO ApplicationSchemaInformation

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractApplicationSchemaInformation`

Methods

Public methods:

- `ISOAbstractApplicationSchemaInformation$new()`
- `ISOAbstractApplicationSchemaInformation$clone()`

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

Usage:

```
ISOAbstractApplicationSchemaInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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 (=> 19139)

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>

`ISOAbstractCitation` *ISOAbstractCitation*

Description

ISOAbstractCitation

ISOAbstractCitation

Format

`R6Class` object.

Value

Object of R6Class for modelling an ISO abstract citation

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractCitation

Methods

Public methods:

- ISOAbstractCitation$new()
- ISOAbstractCitation$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractCitation$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractCompleteness *ISOAbstractCompleteness*

Description

ISOAbstractCompleteness

ISOAbstractCompleteness

Format

R6Class object.

Value

Object of R6Class for modelling an ISOAbstractCompleteness

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> 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>

`ISOAbstractConstraints`

ISOAbstractConstraints

Description

ISOAbstractConstraints

ISOAbstractConstraints

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract constraints

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractConstraints

Methods

Public methods:

- ISOAbstractConstraints$new()
- ISOAbstractConstraints$clone()

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

Usage:

```
ISOAbstractConstraints$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractContentInformation`
ISOAbstractContentInformation

Description

ISOAbstractContentInformation

ISOAbstractContentInformation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract content information

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractContentInformation`

Methods

Public methods:

- ISOAbstractContentInformation$new()
- ISOAbstractContentInformation$clone()

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

Usage:

```
ISOAbstractContentInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractDataEvaluation`
ISOAbstractDataEvaluation

Description

ISOAbstractDataEvaluation

ISOAbstractDataEvaluation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract data evaluation

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractDataEvaluation`

Public fields

`dateTime` dateTime

`evaluationMethodDescription` evaluationMethodDescription

`evaluationProcedure` evaluationProcedure

`referenceDoc` referenceDoc

`evaluationMethodType` evaluationMethodType

Methods

Public methods:

- `ISOAbstractDataEvaluation$new()`
- `ISOAbstractDataEvaluation$setDateTime()`
- `ISOAbstractDataEvaluation$setEvaluationMethodDescription()`
- `ISOAbstractDataEvaluation$setEvaluationProcedure()`
- `ISOAbstractDataEvaluation$addReferenceDoc()`
- `ISOAbstractDataEvaluation$delReferenceDoc()`
- `ISOAbstractDataEvaluation$setEvaluationMethodType()`
- `ISOAbstractDataEvaluation$clone()`

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

Usage:

```
ISOAbstractDataEvaluation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setDateTime()`**:** Set date time

Usage:

```
ISOAbstractDataEvaluation$setDateTime(dateTime)
```

Arguments:

`dateTime` dateTime object of class ISOBaseDateTime

Method `setEvaluationMethodDescription()`**:** Set evaluation method description

Usage:

```
ISOAbstractDataEvaluation$setEvaluationMethodDescription(
  description,
  locales = NULL
)
```

Arguments:

`description` description

`locales` list of localized descriptions. Default is `NULL`

Method `setEvaluationProcedure()`**:** Set evaluation procedure

Usage:

```
ISOAbstractDataEvaluation$setEvaluationProcedure(procedure)
```

Arguments:

`procedure` procedure, object of class ISOCitation

Method `addReferenceDoc()`**:** Adds reference doc

Usage:

```
ISOAbstractDataEvaluation$addReferenceDoc(referenceDoc)
```

Arguments:

`referenceDoc` object of class ISOCitation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delReferenceDoc()`**:** Deletes reference doc

Usage:

```
ISOAbstractDataEvaluation$delReferenceDoc(referenceDoc)
```

Arguments:

`referenceDoc` object of class ISOCitation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setEvaluationMethodType()`**:** Set evaluation method type

Usage:

```
ISOAbstractDataEvaluation$setEvaluationMethodType(type)
```

Arguments:

`type` object of class ISOEvaluationMethodType or any character value from those returned by `ISOEvaluationMethodType$values()`

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractDataQuality *ISOAbstractDataQuality*

Description

ISOAbstractDataQuality

ISOAbstractDataQuality

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract data quality

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractDataQuality

Methods

Public methods:

- ISOAbstractDataQuality$new()
- ISOAbstractDataQuality$clone()

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

Usage:

```
ISOAbstractDataQuality$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractDistribution *ISOAbstractDistribution*

Description

ISOAbstractDistribution

ISOAbstractDistribution

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract distribution

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractDistribution

Methods

Public methods:

- ISOAbstractDistribution$new()
- ISOAbstractDistribution$clone()

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

Usage:

```
ISOAbstractDistribution$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractExtent *ISOAbstractExtent*

Description

ISOAbstractExtent

ISOAbstractExtent

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract extent

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractExtent

Methods

Public methods:

- ISOAbstractExtent$new()
- ISOAbstractExtent$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractExtent$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractFeatureCatalogue *ISOAbstractFeatureCatalogue*

Description

ISOAbstractFeatureCatalogue

ISOAbstractFeatureCatalogue

Format

R6Class object.

Value

Object of R6Class for modelling a ISO abstract feature catalogue

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractCatalogue -> ISOAbstractFeatureCatalogue

Methods

Public methods:

- ISOAbstractFeatureCatalogue$new()
- ISOAbstractFeatureCatalogue$clone()

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

Usage:

```
ISOAbstractFeatureCatalogue$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractFeatureType *ISOAbstractFeatureType*

Description

ISOAbstractFeatureType

ISOAbstractFeatureType

Format

R6Class object.

Value

Object of R6Class for modelling a ISO abstract feature type

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractFeatureType

Methods

Public methods:

- ISOAbstractFeatureType$new()
- ISOAbstractFeatureType$clone()

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

Usage:

```
ISOAbstractFeatureType$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractFormat *ISOAbstractFormat*

Description

ISOAbstractFormat

ISOAbstractFormat

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract format

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractFormat

Methods

Public methods:

- ISOAbstractFormat$new()
- ISOAbstractFormat$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractFormat$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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>

`ISOAbstractLineageInformation`
ISOAbstractLineageInformation

Description

ISOAbstractLineageInformation

ISOAbstractLineageInformation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract lineage information

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractLineageInformation`

Methods

Public methods:

- `ISOAbstractLineageInformation$new()`
- `ISOAbstractLineageInformation$clone()`

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

Usage:

```
ISOAbstractLineageInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractLogicalConsistency *ISOAbstractLogicalConsistency*

Description

ISOAbstractLogicalConsistency

ISOAbstractLogicalConsistency

Format

R6Class object.

Value

Object of R6Class for modelling an ISOAbstractLogicalConsistency

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> 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>

ISOAbstractMaintenanceInformation
ISOAbstractMaintenanceInformation

Description

ISOAbstractMaintenanceInformation

ISOAbstractMaintenanceInformation

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract maintenance information

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractMaintenanceInformation

Methods

Public methods:

- ISOAbstractMaintenanceInformation$new()
- ISOAbstractMaintenanceInformation$clone()

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

Usage:

```
ISOAbstractMaintenanceInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractMDContentInformation *ISOAbstractMDContentInformation*

Description

ISOAbstractMDContentInformation

ISOAbstractMDContentInformation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISOAbstractMDContentInformation

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractMDContentInformation`

Methods

Public methods:

- `ISOAbstractMDContentInformation$new()`
- `ISOAbstractMDContentInformation$clone()`

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

Usage:

```
ISOAbstractMDContentInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

```
ISOAbstractMDContentInformation$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>

ISOAbstractMetadata *ISOAbstractMetadata*

Description

ISOAbstractMetadata

ISOAbstractMetadata

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract metadata

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractMetadata

Methods

Public methods:

- ISOAbstractMetadata$new()
- ISOAbstractMetadata$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractMetadata$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractMetadataExtension *ISOAbstractMetadataExtension*

Description

ISOAbstractMetadataExtension

ISOAbstractMetadataExtension

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract metadata extension

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractMetadataExtension

Methods

Public methods:

- ISOAbstractMetadataExtension$new()
- ISOAbstractMetadataExtension$clone()

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

Usage:

```
ISOAbstractMetadataExtension$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractMetaquality *ISOAbstractMetaquality*

Description

ISOAbstractMetaquality

ISOAbstractMetaquality

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract meta quality

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> geometa::ISODataQualityAbstractElement -> ISOAbstractMetaquality

Public fields

relatedElement relatedElement [0..*]: ISODataQualityAbstractElement

Methods

Public methods:

- ISOAbstractMetaquality$new()
- ISOAbstractMetaquality$addRelatedElement()
- ISOAbstractMetaquality$delRelatedElement()
- ISOAbstractMetaquality$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractMetaquality$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method addRelatedElement(): Adds related element

Usage:

```
ISOAbstractMetaquality$addRelatedElement(element)
```

Arguments:

element object of class ISODataQualityAbstractElement

Returns: TRUE if added, FALSE otherwise

Method `delRelatedElement()`**:** Deletes related element

Usage:

```
ISOAbstractMetaquality$delRelatedElement(element)
```

Arguments:

`element` object of class ISODataQualityAbstractElement

Returns: TRUE if deleted, FALSE otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractObject` *ISOAbstractObject*

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, version)` 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$new()`
- `ISOAbstractObject$checkMetadataStandardCompliance()`
- `ISOAbstractObject$stopIfMetadataStandardIsNot()`
- `ISOAbstractObject$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()
- ISOAbstractObject$clone()

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 `checkMetadataStandardCompliance()`**:** Check if object can be instantiated vs. the current metadata standard

Usage:

```
ISOAbstractObject$checkMetadataStandardCompliance()
```

Method `stopIfMetadataStandardIsNot()`: Utility to stop in case a the current metadata standard does not match the one required for the code. This utility can be used to check applicability of a certain method, depending on on the current metadata standard.

Usage:

```
ISOAbstractObject$stopIfMetadataStandardIsNot(version)
```

Arguments:

`version` version

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 reseting 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 metadata validation. Deprecated. See below note.

`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 metadata validation. Deprecated, see below note.

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. ISOMetadata 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

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Note

Abstract ISO Metadata class used internally by geometa

From 2025-05-02, the INSPIRE metadata validation does not require anymore an API Key. Therefore, it is not required to specify an `inspireValidator`. To send your metadata to INSPIRE, just set `inspire` to `TRUE`.

From 2025-05-02, the INSPIRE metadata validation does not require anymore an API Key. Therefore, it is not required to specify an `inspireValidator`. To send your metadata to INSPIRE, just set `inspire` to `TRUE`.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractOnlineResource`

ISOAbstractOnlineResource

Description

ISOAbstractOnlineResource

ISOAbstractOnlineResource

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract online resource

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractOnlineResource`

Methods

Public methods:

- `ISOAbstractOnlineResource$new()`
- `ISOAbstractOnlineResource$clone()`

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

Usage:

```
ISOAbstractOnlineResource$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractParameter` *ISOAbstractParameter*

Description

ISOAbstractParameter

ISOAbstractParameter

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract parameter

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractParameter`

Public fields

`name` name [1..1]: character|ISOMemberName

`direction` direction [0..1]: ISOParameterDirection

`description` description [0..1]: character

`optionality` optionality [1..1]: logical

`repeatability` repeatability [1..1]: logical

`valueType` valueType [1..1]: ISORecordType

`value` value [0..*] : ISORecord

`resource` resource [0..*] : ISOSource

Methods

Public methods:

- ISOAbstractParameter$new()
- ISOAbstractParameter$setName()
- ISOAbstractParameter$setDirection()
- ISOAbstractParameter$setDescription()
- ISOAbstractParameter$setOptionality()
- ISOAbstractParameter$setRepeatability()
- ISOAbstractParameter$setValueType()
- ISOAbstractParameter$addValue()
- ISOAbstractParameter$delValue()
- ISOAbstractParameter$addResource()
- ISOAbstractParameter$delResource()
- ISOAbstractParameter$clone()

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

Usage:

```
ISOAbstractParameter$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setName()`**:** Set name

Usage:

```
ISOAbstractParameter$setName(name, attributeType, locales = NULL)
```

Arguments:

`name` name

`attributeType` attribute type

`locales` list of localized texts. Default is `NULL`

Method `setDirection()`**:** Set direction

Usage:

```
ISOAbstractParameter$setDirection(direction)
```

Arguments:

`direction` object of class ISOParameterDirection or character among values returned by `ISOParameterDirection$val`

Method `setDescription()`**:** Set description

Usage:

```
ISOAbstractParameter$setDescription(description, locales = NULL)
```

Arguments:

`description` description

`locales` list of localized texts. Default is `NULL`

Method `setOptionality()`**:** Set optionality

Usage:

```
ISOAbstractParameter$setOptionality(optional)
```

Arguments:

`optional` object of class logical

Method `setRepeatability()`**:** Set repeatability

Usage:

```
ISOAbstractParameter$setRepeatability(repeatable)
```

Arguments:

`repeatable` object of class logical

Method `setValueType()`**:** Set value type

Usage:

```
ISOAbstractParameter$setValueType(valueType)
```

Arguments:

`valueType` object of class ISORecordType

Method `addValue()`**:** Adds value

Usage:

```
ISOAbstractParameter$addValue(value)
```

Arguments:

`value` object of class ISORecord

Returns: `TRUE` if added, `FALSE` otherwise

Method `delValue()`**:** Deletes value

Usage:

```
ISOAbstractParameter$delValue(value)
```

Arguments:

`value` object of class ISORecord

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addResource()`**:** Adds resource

Usage:

```
ISOAbstractParameter$addResource(resource)
```

Arguments:

`resource` object of class ISOSource

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResource()`**:** Deletes resource

Usage:

```
ISOAbstractParameter$delResource(resource)
```

Arguments:

`resource` object of class ISOSource

Returns: `TRUE` if added, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractParty` *ISOAbstractParty*

Description

ISOAbstractParty

ISOAbstractParty

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract Party

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractParty`

Public fields

`name` name

`contactInfo` contactInfo

`partyIdentifier` partyIdentifier

Methods

Public methods:

- ISOAbstractParty$new()
- ISOAbstractParty$setName()
- ISOAbstractParty$addContactInfo()
- ISOAbstractParty$delContactInfo()
- ISOAbstractParty$addPartyIdentifier()
- ISOAbstractParty$delPartyIdentifier()
- ISOAbstractParty$clone()

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

Usage:

```
ISOAbstractParty$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setName()`**:** Set name

Usage:

```
ISOAbstractParty$setName(name, locales = NULL)
```

Arguments:

`name` name

`locales` list of localized texts. Default is `NULL`

Method `addContactInfo()`**:** Adds contactInfo

Usage:

```
ISOAbstractParty$addContactInfo(contactInfo)
```

Arguments:

`contactInfo` object of class ISOContact

Returns: `TRUE` if added, `FALSE` otherwise

Method `delContactInfo()`**:** Deletes contactInfo

Usage:

```
ISOAbstractParty$delContactInfo(contactInfo)
```

Arguments:

`contactInfo` object of class ISOContact

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addPartyIdentifier()`**:** Adds party identifier

Usage:

```
ISOAbstractParty$addPartyIdentifier(partyIdentifier)
```

Arguments:

`partyIdentifier` partyIdentifier

Returns: `TRUE` if added, `FALSE` otherwise

Method `delPartyIdentifier()`**:** Deletes party identifier

Usage:

```
ISOAbstractParty$delPartyIdentifier(partyIdentifier)
```

Arguments:

`partyIdentifier` partyIdentifier

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

References

ISO 19115-1:2014 Geographic information — Metadata Part 1: Fundamentals

---

`ISOAbstractPlatform` *ISOAbstractPlatform*

Description

ISOAbstractPlatform

ISOAbstractPlatform

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract platform

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractPlatform`

Methods

Public methods:

- ISOAbstractPlatform$new()
- ISOAbstractPlatform$clone()

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

Usage:

```
ISOAbstractPlatform$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractPortrayalCatalogueInformation`
ISOAbstractPortrayalCatalogueInformation

Description

ISOAbstractPortrayalCatalogueInformation

ISOAbstractPortrayalCatalogueInformation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract portrayal catalogue information

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractPortrayalCatalogueInformation`

Methods

Public methods:

- ISOAbstractPortrayalCatalogueInformation$new()
- ISOAbstractPortrayalCatalogueInformation$clone()

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

Usage:

```
ISOAbstractPortrayalCatalogueInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@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::ISOAbstractQualityElement` -> `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.blondel1@gmail.com>

`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

`designation` designatio [0..1]: character (=> ISO 19115-3)

`definitionReference` definitionReference [0..1]

`featureCatalogue` featureCatalogue [0..1]

Methods

Public methods:

- ISOAbstractPropertyType$new()
- ISOAbstractPropertyType$setMemberName()
- ISOAbstractPropertyType$setDefinition()
- ISOAbstractPropertyType$setCardinality()
- ISOAbstractPropertyType$setDesignation()
- ISOAbstractPropertyType$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 (in ISO 19139 and 19115-3) or ISOLocalName (in ISO 19139 only)

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 `setDesignation()`**:** Set designation

Usage:

```
ISOAbstractPropertyType$setDesignation(designation, locales = NULL)
```

Arguments:

`designation` designation

`locales` locale designations, as list

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>

`ISOAbstractQualityElement`

ISOAbstractQualityElement

Description

ISOAbstractQualityElement

ISOAbstractQualityElement

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract quality element

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractQualityElement

Public fields

dateTime dateTime

Methods

Public methods:

- ISOAbstractQualityElement$new()
- ISOAbstractQualityElement$setDateTime()
- ISOAbstractQualityElement$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractQualityElement$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setDateTime(): Set date time

Usage:

```
ISOAbstractQualityElement$setDateTime(dateTime)
```

Arguments:

dateTime dateTime object of class ISOBaseDateTime

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractReferenceSystem *ISOAbstractReferenceSystem*

Description

ISOAbstractReferenceSystem

ISOAbstractReferenceSystem

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract parameter

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractReferenceSystem

Methods

Public methods:

- ISOAbstractReferenceSystem$new()
- ISOAbstractReferenceSystem$clone()

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

Usage:

```
ISOAbstractReferenceSystem$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractResourceDescription` *ISOAbstractResourceDescription*

Description

ISOAbstractResourceDescription

ISOAbstractResourceDescription

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract resource description

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractResourceDescription`

Methods

Public methods:

- `ISOAbstractResourceDescription$new()`
- `ISOAbstractResourceDescription$clone()`

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

Usage:

```
ISOAbstractResourceDescription$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractResponsibility *ISOAbstractResponsibility*

Description

ISOAbstractResponsibility

ISOAbstractResponsibility

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract responsibility

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractResponsibility

Methods

Public methods:

- ISOAbstractResponsibility$new()
- ISOAbstractResponsibility$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractResponsibility$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAbstractResult` *ISOAbstractResult*

Description

ISOAbstractResult

ISOAbstractResult

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Result

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractResult`

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>

ISOAbstractRSReferenceSystem *ISOAbstractRSReferenceSystem*

Description

ISOAbstractRSReferenceSystem

ISOAbstractRSReferenceSystem

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract RS Reference system

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractRSReferenceSystem

Public fields

name name

domainOfValidity domain of validity

Methods

Public methods:

- ISOAbstractRSReferenceSystem$new()
- ISOAbstractRSReferenceSystem$setName()
- ISOAbstractRSReferenceSystem$addDomainOfValidity()
- ISOAbstractRSReferenceSystem$delDomainOfValidity()
- ISOAbstractRSReferenceSystem$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractRSReferenceSystem$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setName(): Set name

Usage:

```
ISOAbstractRSReferenceSystem$setName(name)
```

Arguments:

`name` name, object of class ISOReferenceIdentifier

Method `addDomainOfValidity()`: Adds domain of validity

Usage:

```
ISOAbstractRSReferenceSystem$addDomainOfValidity(domainOfValidity)
```

Arguments:

`domainOfValidity` object of class ISOExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delDomainOfValidity()`: Deletes domain of validity

Usage:

```
ISOAbstractRSReferenceSystem$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:

```
ISOAbstractRSReferenceSystem$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

`ISOAbstractSpatialRepresentation`
ISOAbstractSpatialRepresentation

Description

ISOAbstractSpatialRepresentation

ISOAbstractSpatialRepresentation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract spatial representation

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractSpatialRepresentation`

Methods

Public methods:

- `ISOAbstractSpatialRepresentation$new()`
- `ISOAbstractSpatialRepresentation$clone()`

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

Usage:

```
ISOAbstractSpatialRepresentation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractSpatialResolution *ISOAbstractSpatialResolution*

Description

ISOAbstractSpatialResolution

ISOAbstractSpatialResolution

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO abstract spatial resolution

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOAbstractSpatialResolution`

Methods

Public methods:

- `ISOAbstractSpatialResolution$new()`
- `ISOAbstractSpatialResolution$clone()`

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

Usage:

```
ISOAbstractSpatialResolution$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractStandardOrderProcess *ISOAbstractStandardOrderProcess*

Description

ISOAbstractStandardOrderProcess

ISOAbstractStandardOrderProcess

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract standard order process

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractStandardOrderProcess

Methods

Public methods:

- ISOAbstractStandardOrderProcess$new()
- ISOAbstractStandardOrderProcess$clone()

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

Usage:

```
ISOAbstractStandardOrderProcess$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractTemporalAccuracy *ISOAbstractTemporalAccuracy*

Description

ISOAbstractTemporalAccuracy

ISOAbstractTemporalAccuracy

Format

R6Class object.

Value

Object of R6Class for modelling an ISOAbstractTemporalAccuracy

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> 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>

ISOAbstractTemporalQuality *ISOAbstractTemporalQuality*

Description

ISOAbstractTemporalQuality

ISOAbstractTemporalQuality

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract temporal quality

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> geometa::ISODataQualityAbstractElement -> ISOAbstractTemporalQuality

Methods

Public methods:

- ISOAbstractTemporalQuality$new()
- ISOAbstractTemporalQuality$clone()

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

Usage:

```
ISOAbstractTemporalQuality$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAbstractThematicAccuracy *ISOAbstractThematicAccuracy*

Description

ISOAbstractThematicAccuracy

ISOAbstractThematicAccuracy

Format

R6Class object.

Value

Object of R6Class for modelling an ISOAbstractThematicAccuracy

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> 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>

ISOAbstractTypedDate *ISOAbstractTypedDate*

Description

ISOAbstractTypedDate

ISOAbstractTypedDate

Format

R6Class object.

Value

Object of R6Class for modelling an ISO abstract typed date

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAbstractTypedDate

Methods

Public methods:

- ISOAbstractTypedDate$new()
- ISOAbstractTypedDate$clone()

Method new(): Initializes object

Usage:

```
ISOAbstractTypedDate$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOAccuracyOfATimeMeasurement *ISOAccuracyOfATimeMeasurement*

Description

ISOAccuracyOfATimeMeasurement

ISOAccuracyOfATimeMeasurement

Format

R6Class object.

Value

Object of R6Class for modelling an ISOAccuracyOfATimeMeasurement

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> 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>

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$addDeliveryPoint()
- ISOAddress$delDeliveryPoint()
- ISOAddress$setCity()
- ISOAddress$setPostalCode()
- ISOAddress$setCountry()
- ISOAddress$setEmail()
- ISOAddress$addEmail()
- ISOAddress$delEmail()
- 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 `addDeliveryPoint()`**:** Adds delivery point

Usage:

```
ISOAddress$addDeliveryPoint(deliveryPoint, locales = NULL)
```

Arguments:

`deliveryPoint` delivery point

`locales` list of localized names

Returns: `TRUE` if added, `FALSE` otherwise

Method `delDeliveryPoint()`**:** Deletes delivery point

Usage:

```
ISOAddress$delDeliveryPoint(deliveryPoint, locales = NULL)
```

Arguments:

`deliveryPoint` delivery point

`locales` list of localized names

Returns: TRUE if added, FALSE otherwise

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 `addEmail()`**:** Adds email

Usage:

```
ISOAddress$addEmail(email, locales = NULL)
```

Arguments:

`email` email
`locales` list of localized names

Returns: TRUE if added, FALSE otherwise

Method `delEmail()`**:** Deletes email

Usage:

```
ISOAddress$delEmail(email, locales = NULL)
```

Arguments:

email email

locales list of localized names

Returns: TRUE if deleted, FALSE otherwise

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.blondel1@gmail.com>

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()
```

ISOAggregationDerivation *ISOAggregationDerivation*

Description

ISOAggregationDerivation

ISOAggregationDerivation

Format

R6Class object.

Value

Object of R6Class for modelling an ISO aggregation derivation

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOEvaluationMethod -> ISOAggregationDerivation

Methods

Public methods:

- ISOAggregationDerivation$new()
- ISOAggregationDerivation$clone()

Method new(): Initializes object

Usage:

```
ISOAggregationDerivation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOAnchor` *ISOAnchor*

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>

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>

`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]: ISOOnlineResource

`softwareDevelopmentFile` softwareDevelopmentFile [0..1]: ISOOnlineResource

`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>

`ISOAssociatedResource` *ISOAssociatedResource*

Description

ISOAssociatedResource

ISOAssociatedResource

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO associated resource

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAssociatedResource

Public fields

name name [0..1]: ISOAbstractCitation

associationType associationType [1..1]: ISOAssociationType

initiativeType initiativeType [0..1]: ISOInitiativeType

metadataReference metadataReference [0..1]: ISOAbstractCitation

Methods

Public methods:

- ISOAssociatedResource$new()
- ISOAssociatedResource$setName()
- ISOAssociatedResource$setAssociationType()
- ISOAssociatedResource$setInitiativeType()
- ISOAssociatedResource$setMetadatReference()
- ISOAssociatedResource$clone()

Method new(): Initializes object

Usage:

```
ISOAssociatedResource$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setName(): Set name

Usage:

```
ISOAssociatedResource$setName(name)
```

Arguments:

name name object of class ISOAbstractCitation

Method setAssociationType(): Set association type

Usage:

```
ISOAssociatedResource$setAssociationType(associationType)
```

Arguments:

associationType associationType object of class ISOAssociationType or any value among values listed by ISOAssociationType$values()

Method setInitiativeType(): Set initiative type

Usage:

```
ISOAssociatedResource$setInitiativeType(initiativeType)
```

Arguments:

`initiativeType` initiativeType object of class ISOInitiativeType or any value among values listed by `ISOInitiativeType$values()`

Method `setMetadatReference()`**:** Set metadata reference

Usage:

```
ISOAssociatedResource$setMetadatReference(metadataReference)
```

Arguments:

`metadataReference` metadataReference object of class ISOAbstractCitation

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

References

ISO 19115:2003 - Geographic information – Metadata

`ISOAssociationRole` *ISOAssociationRole*

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>

Examples

```
#possible values
values <- ISOAssociationType$values(labels = TRUE)

#geomOnly
geomOnly <- ISOAssociationType$new(value = "source")
```

ISOAttributeGroup *ISOAttributeGroup*

Description

ISOAttributeGroup

ISOAttributeGroup

Format

R6Class object.

Value

Object of R6Class for modelling a ISO attribute group

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOAttributeGroup

Public fields

`contentType` contentType [1..*] : ISOCoverageContentType

`attribute` attribute [0..*] : ISORangeDimension

Methods

Public methods:

- ISOAttributeGroup$new()
- ISOAttributeGroup$addContentType()
- ISOAttributeGroup$delContentType()
- ISOAttributeGroup$addAttribute()
- ISOAttributeGroup$delAttribute()
- ISOAttributeGroup$clone()

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

Usage:

```
ISOAttributeGroup$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `addContentType()`**:** Adds coverage content type

Usage:

```
ISOAttributeGroup$addContentType(contentType)
```

Arguments:

`contentType` contentType object of class ISOCoverageContentType or any value among values listed in `ISOCoverageContentType$values()`

Returns: `TRUE` if added, `FALSE` otherwise

Method `delContentType()`**:** Deletes coverage content type

Usage:

```
ISOAttributeGroup$delContentType(contentType)
```

Arguments:

`contentType` contentType object of class ISOCoverageContentType or any value among values listed in `ISOCoverageContentType$values()`

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addAttribute()`**:** Adds attribute

Usage:

```
ISOAttributeGroup$addAttribute(attribute)
```

Arguments:

`attribute` object of class ISORangeDimension

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAttribute()`**:** Deletes attribute

Usage:

```
ISOAttributeGroup$delAttribute(attribute)
```

Arguments:

`attribute` object of class ISORangeDimension

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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>

`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.blondel1@gmail.com>

`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>

`ISOBaseDateTime` *ISOBaseDateTime*

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>

`ISOBaseDecimal` *ISOBaseDecimal*

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>

`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>

`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>

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>

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.blondel1@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$setTypeName()`
- `ISOBoundFeatureAttribute$clone()`

Method `setTypeName()`**:** Set type name

Usage:

```
ISOBoundFeatureAttribute$setTypeName(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>

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>

`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 `setFileDescription()`**:** Set file description

Usage:

```
ISOBrowseGraphic$setFileDescription(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>

Examples

```
md <- ISOBrowseGraphic$new(
 fileName = "http://wwww.somefile.org/png",
 fileDescription = "Map Overview",
 fileType = "image/png"
)
xml <- md$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

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>

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>

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 -> geometa::ISOAbstractCitation -> 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 (for ISO 19139)

ISBN ISBN

ISSN ISSN

onlineResource online resource (for ISO 19115-3)

graphic graphic (for ISO 19115-3)

Methods

Public methods:

- ISOCitation$new()
- ISOCitation$setTitle()
- ISOCitation$addAlternateTitle()
- ISOCitation$delAlternateTitle()
- ISOCitation$addDate()
- ISOCitation$setEdition()
- ISOCitation$setEditionDate()
- ISOCitation$addIdentifier()
- ISOCitation$delIdentifier()
- ISOCitation$addCitedResponsibleParty()
- ISOCitation$delCitedResponsibleParty()
- ISOCitation$addPresentationForm()
- ISOCitation$delPresentationForm()

- ISOCitation$setSeries()
- ISOCitation$setOtherCitationDetails()
- ISOCitation$setCollectiveTitle()
- ISOCitation$setISBN()
- ISOCitation$setISSN()
- ISOCitation$addOnlineResource()
- ISOCitation$delOnlineResource()
- ISOCitation$addGraphic()
- ISOCitation$delGraphic()
- ISOCitation$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 `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 `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 `addCitedResponsibleParty()`**:** Adds cited responsible party

Usage:

```
ISOCitation$addCitedResponsibleParty(rp)
```

Arguments:

`rp` cited responsible party, object of class ISOResponsibleParty (in ISO 19139) or ISOResponsibility (in ISO 19115-3)

`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 (in ISO 19139) or ISOResponsibility (in ISO 19115-3)

`locales` list of localized responsible parties. Default is `NULL`

Returns: `TRUE` if deleted, `FALSE` otherwise

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 `addOnlineResource()`: Adds online resource

Usage:

```
ISOCitation$addOnlineResource(onlineResource)
```

Arguments:

`onlineResource` object of class ISOOnlineResource

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOnlineResource()`: Deletes online resource

Usage:

```
ISOCitation$delOnlineResource(onlineResource)
```

Arguments:

`onlineResource` object of class ISOOnlineResource

Returns: `TRUE` if added, `FALSE` otherwise

Method `addGraphic()`: Adds graphic

Usage:

```
ISOCitation$addGraphic(graphic)
```

Arguments:

`graphic` object of class ISOBrowseGraphic

Returns: `TRUE` if added, `FALSE` otherwise

Method `delGraphic()`: Adds graphic

Usage:

```
ISOCitation$delGraphic(graphic)
```

Arguments:

`graphic` object of class ISOBrowseGraphic

Returns: `TRUE` if deleted, `FALSE` otherwise

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 <emmanuel.blondel1@gmail.com>

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$setPage(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` *ISOClassification*

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>

Examples

```
#possible values
values <- ISOClassification$values(labels = TRUE)

#restricted classification
cl <- ISOClassification$new(value = "restricted")
```

ISOCodeDefinition *ISOCodeDefinition*

Description

ISOCodeDefinition

ISOCodeDefinition

Format

R6Class object.

Value

Object of R6Class for modelling an ISO Metadata code definition

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOCodeDefinition

Public fields

identifier identifier

description description

Methods

Public methods:

- ISOCodeDefinition$new()
- ISOCodeDefinition$toISOCTCodelistValue()
- ISOCodeDefinition$clone()

Method new(): Initializes object

Usage:

```
ISOCodeDefinition$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method toISOCTCodelistValue(): Converts to ISOCTCodelistValue

Usage:

```
ISOCodeDefinition$toISOCTCodelistValue()
```

Returns: object of class ISOCTCodelistValue

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

Usage:

```
ISOCodeDefinition$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/TS 19139:2007 Geographic information – XML

`ISOCodelist` *ISOCodelist*

Description

ISOCodelist

ISOCodelist

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO codelist

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOCodelist`

Public fields

`id` id

`refFile` ref file

`codeSpace` code space

`identifier` identifier

`description` description

`codeEntry` code entries

Methods

Public methods:

- ISOCodelist$new()
- ISOCodelist$getCodeEntries()
- ISOCodelist$parse()
- ISOCodelist$clone()

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

Usage:

```
ISOCodelist$new(
  xml = NULL,
  identifier = NULL,
  data = NULL,
  codeSpace = NA,
  description = NA,
  refFile = NULL,
  id = NULL
)
```

Arguments:

`xml` object of class XMLInternalNode-class

`identifier` codelist identifier

`data` an object class data.frame with columns codeSpace, identifier, description

`codeSpace` code space

`description` description

`refFile` ref file

`id` id

Method `getCodeEntries()`**:** get code entries

Usage:

```
ISOCodelist$getCodeEntries(pretty = FALSE)
```

Arguments:

`pretty` prettify output as `data.frame`. Default is`FALSE`

Returns: an object of class list or data.frame

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.blondel1@gmail.com>

`ISOCodelistCatalogue` *ISOCodelistCatalogue*

Description

ISOCodelistCatalogue

ISOCodelistCatalogue

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISOCodelistCatalogue

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractCatalogue` -> `ISOCodelistCatalogue`

Public fields

`codelistItem` codelist items

Methods

Public methods:

- `ISOCodelistCatalogue$new()`
- `ISOCodelistCatalogue$getCodelists()`
- `ISOCodelistCatalogue$getCodelist()`
- `ISOCodelistCatalogue$clone()`

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

Usage:

```
ISOCodelistCatalogue$new(xml = NULL, refFile = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

`refFile` ref file

Method `getCodelists()`**:** Decodes and builds an `ISOCodelistCatalogue` from XML. This is done specifically for this class, without using the generic `ISOAbstractObject` decoder, to make it fully decodable on package load.

Get codelists. The method ensure an harmonized output made of objects of class ISOCodelist. In the catalogue is built of objects of class ISOCodeListDictionary, these will be mapped as ISOCodelist, to facilitate the consumption of codelists by **geometa**

Usage:

```
ISOCodelistCatalogue$getCodelists()
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `getCodelist()`**:** Get codelist by id.

Usage:

```
ISOCodelistCatalogue$getCodelist(id)
```

Arguments:

`id` id

Returns: object of class ISOCodelist

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOCodeListDictionary` *ISOCodeListDictionary*

Description

ISOCodeListDictionary

ISOCodeListDictionary

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Metadata codelist dictionary

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOCodeListDictionary

Public fields

identifier identifier

description description

codeEntry code entries

Methods

Public methods:

- ISOCodeListDictionary$new()
- ISOCodeListDictionary$toISOCodelist()
- ISOCodeListDictionary$clone()

Method new(): Initializes object

Usage:

```
ISOCodeListDictionary$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method toISOCodelist(): Converts to ISOCodelist

Usage:

```
ISOCodeListDictionary$toISOCodelist()
```

Returns: an object of class ISOCodelist

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

Usage:

```
ISOCodeListDictionary$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/TS 19139:2007 Geographic information – XML

ISOCodeListValue *ISOCodeListValue*

Description

ISOCodeListValue

ISOCodeListValue

Format

R6Class object.

Value

Object of R6Class for modelling an ISO Metadata codelist item

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 atributes to root XML. The parameter addCodeSpaceAttr = TRUE by default, and ignored if the valueof addCodeLisAttrs is set to FALSE. The argument setValue sets the value as node text (defaut 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::ISOAbstractQualityElement -> 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>

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::ISOAbstractQualityElement -> 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>

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::ISOAbstractQualityElement -> 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>

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()
```

ISOConfidence *ISOConfidence*

Description

ISOConfidence

ISOConfidence

Format

R6Class object.

Value

Object of R6Class for modelling an ISO confidence

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> geometa::ISODataQualityAbstractElement -> geometa::ISOAbstractMetaquality -> ISOConfidence

Methods

Public methods:

- ISOConfidence$new()
- ISOConfidence$clone()

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

Usage:

```
ISOConfidence$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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

resultScope resultScope [0..1]: ISOScope (=> 19115-3)

dateTime dateTime [0..1] (=> 19115-3)

specification specification

explanation explanation

pass pass

Methods

Public methods:

- ISOConformanceResult$new()
- ISOConformanceResult$setResultScope()
- ISOConformanceResult$setDateTime()
- ISOConformanceResult$setSpecification()
- ISOConformanceResult$setExplanation()
- ISOConformanceResult$setPass()
- ISOConformanceResult$clone()

Method new(): Initializes object

Usage:

```
ISOConformanceResult$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setResultScope()`**:** Set result scope

Usage:

```
ISOConformanceResult$setResultScope(scope)
```

Arguments:

`scope` object of class ISOScope

Method `setDateTime()`**:** Set date time

Usage:

```
ISOConformanceResult$setDateTime(dateTime)
```

Arguments:

`dateTime` date time, object of class POSIXct

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 wether 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>

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. Defaut 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

constraintApplicationScope constraintApplicationScope [0..1]: ISOScope (=> ISO 19115-3)

graphic graphic [0..*]: ISOBrowseGraphic (=> ISO 19115-3)

reference reference [0..*]: ISOCitation (=> ISO 19115-3)

releasability releasability [0..1]: ISOReleasability (=> ISO 19115-3)

responsibleParty responsibleParty [0..*]: ISOAbstractResponsibility (=> ISO 19115-3)

Methods

Public methods:

- ISOConstraints$new()
- ISOConstraints$addUseLimitation()
- ISOConstraints$setUseLimitation()
- ISOConstraints$delUseLimitation()
- ISOConstraints$setScope()
- ISOConstraints$addGraphic()
- ISOConstraints$delGraphic()
- ISOConstraints$addReference()
- ISOConstraints$delReference()
- ISOConstraints$setReleasability()
- ISOConstraints$addResponsibleParty()
- ISOConstraints$delResponsibleParty()
- 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 `setScope()`**:** Set scope

Usage:

```
ISOConstraints$setScope(scope)
```

Arguments:

`scope` object of class ISOScope

Method `addGraphic()`**:** Adds a graphic

Usage:

```
ISOConstraints$addGraphic(graphic)
```

Arguments:

`graphic` graphic

Returns: `TRUE` if added, `FALSE` otherwise

Method `delGraphic()`**:** Deletes a graphic

Usage:

```
ISOConstraints$delGraphic(graphic)
```

Arguments:

`graphic` graphic

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addReference()`**:** Adds a reference

Usage:

```
ISOConstraints$addReference(reference)
```

Arguments:

`reference` reference

Returns: `TRUE` if added, `FALSE` otherwise

Method `delReference()`**:** Deletes a reference

Usage:

```
ISOConstraints$delReference(reference)
```

Arguments:

`reference` reference

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setReleasability()`**:** Set releasbility

Usage:

```
ISOConstraints$setReleasability(releasability)
```

Arguments:

`releasability` object of class ISOReleasability

Method `addResponsibleParty()`**:** Adds a responsible party

Usage:

```
ISOConstraints$addResponsibleParty(party)
```

Arguments:

`party` party object of class inheriting ISOAbstractResponsibility

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResponsibleParty()`**:** Deletes a responsible party

Usage:

```
ISOConstraints$delResponsibleParty(party)
```

Arguments:

`party` party object of class inheriting ISOAbstractResponsibility

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>

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

hoursOfService hours of service

contactInstructions contact instructions

contactType contact type

Methods

Public methods:

- ISOContact$new()
- ISOContact$setPhone()
- ISOContact$addPhone()
- ISOContact$delPhone()
- ISOContact$setAddress()
- ISOContact$addAddress()
- ISOContact$delAddress()
- ISOContact$setOnlineResource()
- ISOContact$addOnlineResource()
- ISOContact$delOnlineResource()
- ISOContact$addHoursOfService()
- ISOContact$delHoursOfService()

- ISOContact$setContactInstructions()
- ISOContact$setContactType()
- ISOContact$clone()

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

Usage:

```
ISOContact$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setPhone()`**:** Set phone (with ISO 19139)

Usage:

```
ISOContact$setPhone(phone)
```

Arguments:

`phone` object of class ISOTelephone

Method `addPhone()`**:** Adds phone (with ISO 19115-3)

Usage:

```
ISOContact$addPhone(phone)
```

Arguments:

`phone` object tof class ISOTelephone

Returns: `TRUE` if added, `FALSE` otherwise

Method `delPhone()`**:** Deletes phone (with ISO 19115-3)

Usage:

```
ISOContact$delPhone(phone)
```

Arguments:

`phone` object tof class ISOTelephone

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setAddress()`**:** Set address (with ISO 19139)

Usage:

```
ISOContact$setAddress(address)
```

Arguments:

`address` object of class ISOAddress

Method `addAddress()`**:** Adds address (with ISO 19115-3)

Usage:

```
ISOContact$addAddress(address)
```

Arguments:

`address` object of class ISOAddress

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAddress()`**:** Deletes address (with ISO 19115-3)

Usage:

```
ISOContact$delAddress(address)
```

Arguments:

`address` object of class ISOAddress

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setOnlineResource()`**:** Set online resource (with ISO 19139)

Usage:

```
ISOContact$setOnlineResource(onlineResource)
```

Arguments:

`onlineResource` online resource, object of class ISOOnlineResource

Method `addOnlineResource()`**:** Adds online resource (with ISO 19115-3)

Usage:

```
ISOContact$addOnlineResource(onlineResource)
```

Arguments:

`onlineResource` online resource, object of class ISOOnlineResource

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOnlineResource()`**:** Deletes online resource (with ISO 19115-3)

Usage:

```
ISOContact$delOnlineResource(onlineResource)
```

Arguments:

`onlineResource` online resource, object of class ISOOnlineResource

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addHoursOfService()`**:** Adds hours of service (with ISO 19115-3)

Usage:

```
ISOContact$addHoursOfService(hoursOfService)
```

Arguments:

`hoursOfService` object of class character

Returns: `TRUE` if added, `FALSE` otherwise

Method `delHoursOfService()`**:** Deletes hours of service (with ISO 19115-3)

Usage:

```
ISOContact$delHoursOfService(hoursOfService)
```

Arguments:

`hoursOfService` object of class character

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setContactInstructions()`: Set contact instructions

Usage:

```
ISOContact$setContactInstructions(contactInstructions, locales = NULL)
```

Arguments:

`contactInstructions` contact instructions

`locales` list of localized editions. Default is `NULL`

Method `setContactType()`: Set contact type

Usage:

```
ISOContact$setContactType(contactType, locales = NULL)
```

Arguments:

`contactType` contact type

`locales` list of localized editions. Default is `NULL`

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>

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)
```

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>

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>

Examples

```
md <- ISOCoupledResource$new()
md$setOperationName("name")
md$setIdentifier("identifier")
xml <- md$encode()
```

`ISOCouplingType` *ISOCouplingType*

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>

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

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>

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::ISOAbstractContentInformation -> 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 ISORecordType 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>

Examples

```
#create coverage description
md <- ISOCoverageDescription$new()
md$setAttributeDescription("test")
md$setContentType("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()
```

`ISOCTCodelistValue` *ISOCTCodelistValue*

Description

ISOCTCodelistValue

ISOCTCodelistValue

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Metadata codelistvalue

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOCTCodelistValue

Public fields

identifier identifier

description description

Methods

Public methods:

- ISOCTCodelistValue$new()
- ISOCTCodelistValue$clone()

Method new(): Initializes object

Usage:

```
ISOCTCodelistValue$new(xml = NULL, identifier = NULL, description = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

identifier identifier

description description

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

Usage:

```
ISOCTCodelistValue$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/TS 19139:2007 Geographic information – XML

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.blondel1@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$setFileType(ISOMimeFileType$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

Methods

Public methods:

- `ISODataIdentification$new()`
- `ISODataIdentification$clone()`

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

Usage:

```
ISODataIdentification$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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>

`ISODataIdentification19115_3`

ISODataIdentification

Description

ISODataIdentification

ISODataIdentification

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO DataIdentification

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOIdentification` -> `geometa::ISOIdentification19115_3` -> `ISODataIdentification19115_3`

Public fields

`defaultLocale` defaultLocale [0..1]: ISOLocale

`otherLocale` otherLocale [0..*]: ISOLocale

`environmentDescription` environment description [0..1]: character

`supplementalInformation` supplementalInformation [0..1]: character

Methods

Public methods:

- `ISODataIdentification19115_3$new()`
- `ISODataIdentification19115_3$setDefaultLocale()`
- `ISODataIdentification19115_3$addOtherLocale()`
- `ISODataIdentification19115_3$delOtherLocale()`
- `ISODataIdentification19115_3$setEnvironmentDescription()`
- `ISODataIdentification19115_3$setSupplementalInformation()`
- `ISODataIdentification19115_3$clone()`

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

Usage:

```
ISODataIdentification19115_3$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setDefaultLocale()`**:** Set default locale

Usage:

```
ISODataIdentification19115_3$setDefaultLocale(locale)
```

Arguments:

`locale` object of class ISOLocale

Method `addOtherLocale()`**:** Adds locale

Usage:

```
ISODataIdentification19115_3$addOtherLocale(locale)
```

Arguments:

`locale` object of class ISOLocale

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOtherLocale()`**:** Deletes locale

Usage:

```
ISODataIdentification19115_3$delOtherLocale(locale)
```

Arguments:

`locale` object of class ISOLocale

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setEnvironmentDescription()`: Set environment description

Usage:

```
ISODataIdentification19115_3$setEnvironmentDescription(
  environmentDescription,
  locales = NULL
)
```

Arguments:

`environmentDescription` environment description

`locales` a list of localized information. Default is `NULL`

Method `setSupplementalInformation()`: Set supplemental information

Usage:

```
ISODataIdentification19115_3$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:

```
ISODataIdentification19115_3$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISODataIdentification19139`

ISODataIdentification19139

Description

ISODataIdentification19139

ISODataIdentification19139

Format

`R6Class` object.

Value

Object of R6Class for modelling an ISO DataIdentification in ISO 19139

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOIdentification -> geometa::ISOIdentification19139 -> ISODataIdentification19139

Public fields

spatialRepresentationType spatialRepresentationType [0..*]: ISOSpatialRepresentationType

spatialResolution spatialResolution [0..*]: ISOResolution

temporalResolution [0..*]: ISOPeriodDuration

language language [1..*]: character

characterSet characterSet [0..*]: ISOCharacterSet

topicCategory topicCategory [0..*]: ISOTopicCategory

environmentDescription environment description [0..1]: character

extent extent [0..*]: ISOExtent

supplementalInformation supplementalInformation

Methods

Public methods:

- ISODataIdentification19139$new()
- ISODataIdentification19139$addSpatialRepresentationType()
- ISODataIdentification19139$delSpatialRepresentationType()
- ISODataIdentification19139$addSpatialResolution()
- ISODataIdentification19139$delSpatialResolution()
- ISODataIdentification19139$addLanguage()
- ISODataIdentification19139$setLanguage()
- ISODataIdentification19139$delLanguage()
- ISODataIdentification19139$addCharacterSet()
- ISODataIdentification19139$setCharacterSet()
- ISODataIdentification19139$delCharacterSet()
- ISODataIdentification19139$addTopicCategory()
- ISODataIdentification19139$delTopicCategory()
- ISODataIdentification19139$addExtent()
- ISODataIdentification19139$delExtent()
- ISODataIdentification19139$setSupplementalInformation()
- ISODataIdentification19139$clone()

Method new(): Initializes object

Usage:

```
ISODataIdentification19139$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `addSpatialRepresentationType()`: Adds spatial representation type

Usage:

```
ISODataIdentification19139$addSpatialRepresentationType(
  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:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$addSpatialResolution(resolution)
```

Arguments:

`resolution` object of class ISOResolution

Returns: `TRUE` if added, `FALSE` otherwise

Method `delSpatialResolution()`: Deletes spatial resolution

Usage:

```
ISODataIdentification19139$delSpatialResolution(resolution)
```

Arguments:

`resolution` object of class ISOResolution

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addLanguage()`: Adds language

Usage:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$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 `delTopicCategory()`**:** Deletes topic category

Usage:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$addExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delExtent()`**:** Deletes extent

Usage:

```
ISODataIdentification19139$delExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setSupplementalInformation()`**:** Set supplemental information

Usage:

```
ISODataIdentification19139$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:

```
ISODataIdentification19139$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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$new(
  fileName = "http://wwww.somefile.org/png",
  fileDescription = "Map Overview",
  fileType = "image/png"
)
md$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()
```

ISODataInspection *ISODataInspection*

Description

ISODataInspection

ISODataInspection

Format

R6Class object.

Value

Object of R6Class for modelling an ISO data inspection

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOEvaluationMethod -> ISODataInspection

Methods

Public methods:

- ISODataInspection$new()
- ISODataInspection$clone()

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

Usage:

```
ISODataInspection$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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

standaloneQualityReport standalone quality report (=> 19115-3)

report list of reports (=> 19139)

lineage lineage

Methods

Public methods:

- ISODataQuality$new()
- ISODataQuality$setScope()
- ISODataQuality$setStandaloneQualityReport()
- ISODataQuality$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 `setStandaloneQualityReport()`: Set standalone quality report

Usage:

```
ISODataQuality$setStandaloneQualityReport(report)
```

Arguments:

`report` object of class ISOStandaloneQualityReportInformation

Method `addReport()`: Adds report

Usage:

```
ISODataQuality$addReport(report)
```

Arguments:

`report` report, object of class ISODataQualityAbstractElement

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.blondel1@gmail.com>

References

ISO 19115:2003 - Geographic information – Metadata

Examples

```
#create dataQuality object with a 'dataset' scope
dq <- ISODataQuality$new()
scope <- ISODataQualityScope$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 -> geometa::ISOAbstractQualityElement -> ISODataQualityAbstractElement

Public fields

`standaloneQualityReportDetails` standaloneQualityReportDetails [0..1]: character (=> 19115-3)

`nameOfMeasure` nameOfMeasure [0..*]: character (=> 19139)

`measureIdentification` measureIdentification [0..1]: ISOMetaIdentifier (=> 19139)

`measureDescription` measureDescription [0..1]: character (=> 19139)

`measure` measure [0..1]: ISOMeasureReference (=> 19115-3)

`evaluationMethodType` evaluationMethodType [0..1]: ISOEvaluationMethodType (=> 19139)

`evaluationMethodDescription` evaluationMethodDescription [0..1]: character (=> 19139)

`evaluationProcedure` evaluationProcedure [0..1]: ISOCitation (=> 19139)

`evaluationMethod` evaluationMethod [0..1]: ISOEvaluationMethod (=> 19115-3)

`dateTime` dateTime [0..1]: ISODateTime (=> 19139)

`result` result [1..2]: ISOAbstractResult

`derivedElement` derivedElement [0..*]: ISODataQualityAbstractElement (=> 19115-3)

Methods

Public methods:

- `ISODataQualityAbstractElement$new()`
- `ISODataQualityAbstractElement$setStandaloneQualityReportDetails()`
- `ISODataQualityAbstractElement$addNameOfMeasure()`
- `ISODataQualityAbstractElement$delNameOfMeasure()`
- `ISODataQualityAbstractElement$setMeasureIdentification()`
- `ISODataQualityAbstractElement$setMeasure()`
- `ISODataQualityAbstractElement$setMeasureDescription()`
- `ISODataQualityAbstractElement$setEvaluationMethodType()`
- `ISODataQualityAbstractElement$setEvaluationMethodDescription()`
- `ISODataQualityAbstractElement$setEvaluationProcedure()`
- `ISODataQualityAbstractElement$setEvaluationMethod()`
- `ISODataQualityAbstractElement$setDateTime()`
- `ISODataQualityAbstractElement$addResult()`
- `ISODataQualityAbstractElement$delResult()`
- `ISODataQualityAbstractElement$addDerivedElement()`
- `ISODataQualityAbstractElement$delDerivedElement()`
- `ISODataQualityAbstractElement$clone()`

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

Usage:

```
ISODataQualityAbstractElement$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setStandaloneQualityReportDetails()`**:** Set Standalone quality report details

Usage:

```
ISODataQualityAbstractElement$setStandaloneQualityReportDetails(details)
```

Arguments:

details object of class character

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 setMeasure(): Set measure

Usage:

```
ISODataQualityAbstractElement$setMeasure(measure)
```

Arguments:

measure object of class ISOMeasureReference

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 `setEvaluationMethod()`: Set evaluation method

Usage:

```
ISODataQualityAbstractElement$setEvaluationMethod(evaluationMethod)
```

Arguments:

`evaluationMethod` object of class ISOEvaluationMethod

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 ISOAbstractResult

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResult()`: Deletes result

Usage:

```
ISODataQualityAbstractElement$delResult(result)
```

Arguments:

`result` object of class ISOAbstractResult

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addDerivedElement()`**:** Adds derived element

Usage:

```
ISODataQualityAbstractElement$addDerivedElement(element)
```

Arguments:

`element` object of class ISODataQualityAbstractElement

Returns: `TRUE` if added, `FALSE` otherwise

Method `delDerivedElement()`**:** Deletes derived element

Usage:

```
ISODataQualityAbstractElement$delDerivedElement(element)
```

Arguments:

`element` object of class ISODataQualityAbstractElement

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>

`ISODataQualityScope` *ISODataQualityScope*

Description

ISODataQualityScope

ISODataQualityScope

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Scope

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISODataQualityScope

Public fields

level level

Methods

Public methods:

- ISODataQualityScope$new()
- ISODataQualityScope$setLevel()
- ISODataQualityScope$clone()

Method new(): Initializes object

Usage:

```
ISODataQualityScope$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setLevel(): Set level

Usage:

```
ISODataQualityScope$setLevel(level)
```

Arguments:

level object of class ISOScopeCode or any character among values returned by ISOScopeCode

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
md <- ISODataQualityScope$new()
md$setLevel("dataset")
xml <- md$encode()
```

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` -> `geometa::ISOAbstractTypedDate` -> `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, date = NULL, dateType = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

`date` object of class Date or POSIXt

`dateType` object of class ISODateType or any character value among values returned by `ISODateType$values()`

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.blondel1@gmail.com>

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>

Examples

```
#possible values
values <- ISODateType$values(labels = TRUE)

#creation datetype
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>

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

`ISODescriptiveResult` *ISODescriptiveResult*

Description

ISODescriptiveResult

ISODescriptiveResult

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISODescriptiveResult

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISODescriptiveResult`

Public fields

`resultScope` resultScope [0..1]: ISOScope

`dateTime` dateTime [0..1]: ISOBaseDateTime

`statement` statement [1]: character

Methods

Public methods:

- `ISODescriptiveResult$new()`
- `ISODescriptiveResult$setResultScope()`
- `ISODescriptiveResult$setDateTime()`
- `ISODescriptiveResult$setStatement()`
- `ISODescriptiveResult$clone()`

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

Usage:

```
ISODescriptiveResult$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setResultScope()`**:** Set result scope

Usage:

```
ISODescriptiveResult$setResultScope(scope)
```

Arguments:

`scope` object of class ISOScope

Method `setDateTime()`**:** Set date time

Usage:

```
ISODescriptiveResult$setDateTime(dateTime)
```

Arguments:

`dateTime` dateTime object of class ISOBaseDateTime

Method `setStatement()`**:** Set statement

Usage:

```
ISODescriptiveResult$setStatement(statement, locales = NULL)
```

Arguments:

`statement` statement

`locales` list of localized statement. Default is `NULL`

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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

distributionFormat distributionFormat [0..*]: ISOFormat (=> ISO 19115-3)

Methods

Public methods:

- ISODigitalTransferOptions$new()
- ISODigitalTransferOptions$setUnitsOfDistribution()
- ISODigitalTransferOptions$setTransferSize()
- ISODigitalTransferOptions$addOnlineResource()
- ISODigitalTransferOptions$setOnlineResource()
- ISODigitalTransferOptions$delOnlineResource()
- ISODigitalTransferOptions$addOfflineResource()
- ISODigitalTransferOptions$setOfflineResource()
- ISODigitalTransferOptions$delOfflineResource()
- ISODigitalTransferOptions$addDistributionFormat()
- ISODigitalTransferOptions$delDistributionFormat()
- ISODigitalTransferOptions$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 `addDistributionFormat()`**:** Adds distribution format

Usage:

```
ISODigitalTransferOptions$addDistributionFormat(distributionFormat)
```

Arguments:

`distributionFormat` object of class ISOFormat

Returns: `TRUE` if added, `FALSE` otherwise

Method `delDistributionFormat()`**:** Deletes distribution format

Usage:

```
ISODigitalTransferOptions$delDistributionFormat(distributionFormat)
```

Arguments:

`distributionFormat` object of class ISOFormat

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>

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 *ISODimension*

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.blondel1@gmail.com>

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>

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

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>

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 <emmanuel.blondel1@gmail.com>

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*

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.blondel1@gmail.com>

References

ISO 19115:2003 - Geographic information – Metadata

Examples

```
unit <- ISODistributionUnits$new(value = "unit")
```

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

distributionOrderProcess distributionOrderProcess : ISOStandardOrderProcess

distributorFormat distributorFormat : ISOFormat

distributorTransferOptions distributorTransferOptions : ISODigitalTransferOptions

Methods

Public methods:

- ISODistributor$new()
- ISODistributor$setContact()
- ISODistributor$addStandardOrderProcess()
- ISODistributor$delStandardOrderProcess()
- ISODistributor$addFormat()
- ISODistributor$delFormat()
- ISODistributor$addDigitalTransferOptions()
- ISODistributor$delDigitalTransferOptions()
- 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 `addStandardOrderProcess()`**:** Adds standard order process

Usage:

```
ISODistributor$addStandardOrderProcess(standardOrderProcess)
```

Arguments:

`standardOrderProcess` standardOrderProcess object of class ISOStandardOrderProcess

Returns: `TRUE` if added, `FALSE` otherwise

Method `delStandardOrderProcess()`**:** Deletes standard order process

Usage:

```
ISODistributor$delStandardOrderProcess(standardOrderProcess)
```

Arguments:

`standardOrderProcess` standardOrderProcess object of class ISOStandardOrderProcess

Returns: `TRUE` if deleted, `FALSE` otherwise

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 `addDigitalTransferOptions()`**:** Adds digital transfer options

Usage:

```
ISODistributor$addDigitalTransferOptions(digitalTransferOptions)
```

Arguments:

`digitalTransferOptions` object of class ISODigitalTransferOptions

Returns: TRUE if added, FALSE otherwise

Method `delDigitalTransferOptions()`**:** Deletes digital transfer options

Usage:

```
ISODistributor$delDigitalTransferOptions(digitalTransferOptions)
```

Arguments:

`digitalTransferOptions` object of class ISODigitalTransferOptions

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>

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()
```

ISODomainConsistency *ISODomainConsistency*

Description

ISODomainConsistency

ISODomainConsistency

Format

R6Class object.

Value

Object of R6Class for modelling an ISODomainConsistency

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> 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>

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()
```

`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

---

`ISOEvaluationMethod` *ISOEvaluationMethod*

Description

ISOEvaluationMethod

ISOEvaluationMethod

Format

`R6Class` object.

Value

Object of R6Class for modelling an ISO abstract evaluation method

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOEvaluationMethod

Public fields

dateTime dateTime

evaluationMethodDescription evaluationMethodDescription

evaluationProcedure evaluationProcedure

referenceDoc referenceDoc

evaluationMethodType evaluationMethodType

Methods

Public methods:

- ISOEvaluationMethod$new()
- ISOEvaluationMethod$setDateTime()
- ISOEvaluationMethod$setEvaluationMethodDescription()
- ISOEvaluationMethod$setEvaluationProcedure()
- ISOEvaluationMethod$addReferenceDoc()
- ISOEvaluationMethod$delReferenceDoc()
- ISOEvaluationMethod$setEvaluationMethodType()
- ISOEvaluationMethod$clone()

Method new(): Initializes object

Usage:

```
ISOEvaluationMethod$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setDateTime(): Set date time

Usage:

```
ISOEvaluationMethod$setDateTime(dateTime)
```

Arguments:

dateTime dateTime object of class ISOBaseDateTime

Method setEvaluationMethodDescription(): Set evaluation method description

Usage:

```
ISOEvaluationMethod$setEvaluationMethodDescription(description, locales = NULL)
```

Arguments:

description description

locales list of localized descriptions. Default is NULL

Method setEvaluationProcedure(): Set evaluation procedure

Usage:

```
ISOEvaluationMethod$setEvaluationProcedure(procedure)
```

Arguments:

procedure procedure, object of class ISOCitation

Method addReferenceDoc(): Adds reference doc

Usage:

```
ISOEvaluationMethod$addReferenceDoc(referenceDoc)
```

Arguments:

referenceDoc object of class ISOCitation

Returns: TRUE if added, FALSE otherwise

Method delReferenceDoc(): Deletes reference doc

Usage:

```
ISOEvaluationMethod$delReferenceDoc(referenceDoc)
```

Arguments:

referenceDoc object of class ISOCitation

Returns: TRUE if deleted, FALSE otherwise

Method setEvaluationMethodType(): Set evaluation method type

Usage:

```
ISOEvaluationMethod$setEvaluationMethodType(type)
```

Arguments:

type object of class ISOEvaluationMethodType or any character value from those returned by ISOEvaluationMethodType$values()

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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>

Examples

```
#possible values
values <- ISOEvaluationMethodType$values(labels = TRUE)

#example of EvaluationMethodType
indirect <- ISOEvaluationMethodType$new(value = "indirect")
```

`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>

`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

`ISOFeatureAssociation19115_3`

ISOFeatureAssociation19115_3

Description

ISOFeatureAssociation19115_3

ISOFeatureAssociation19115_3

Format

R6Class object.

Value

Object of R6Class for modelling an ISOFeatureAssociation in ISO 19115-3

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOFeatureType -> geometa::ISOFeatureType19115_3 -> ISOFeatureAssociation19115_3

Public fields

`roleName` roleName [2..*]: ISOAssociationRole

Methods

Public methods:

- `ISOFeatureAssociation19115_3$new()`
- `ISOFeatureAssociation19115_3$addRoleName()`
- `ISOFeatureAssociation19115_3$delRoleName()`
- `ISOFeatureAssociation19115_3$clone()`

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

Usage:

```
ISOFeatureAssociation19115_3$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `addRoleName()`**:** Adds role name

Usage:

```
ISOFeatureAssociation19115_3$addRoleName(associationRole)
```

Arguments:

`associationRole` object of class ISOAssociationRole

Returns: `TRUE` if added, `FALSE` otherwise

Method `delRoleName()`**:** Deletes role name

Usage:

```
ISOFeatureAssociation19115_3$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:

```
ISOFeatureAssociation19115_3$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

ISOFeatureAssociation19139 *ISOFeatureAssociation19139*

Description

ISOFeatureAssociation19139

ISOFeatureAssociation19139

Format

R6Class object.

Value

Object of R6Class for modelling an ISOFeatureAssociation in ISO 19139

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOFeatureType -> geometa::ISOFeatureType19139 -> ISOFeatureAssociation19139

Public fields

roleName roleName [2..*]: ISOAssociationRole

Methods

Public methods:

- ISOFeatureAssociation19139$new()
- ISOFeatureAssociation19139$addRoleName()
- ISOFeatureAssociation19139$delRoleName()
- ISOFeatureAssociation19139$clone()

Method new(): Initializes object

Usage:

```
ISOFeatureAssociation19139$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method addRoleName(): Adds role name

Usage:

```
ISOFeatureAssociation19139$addRoleName(associationRole)
```

Arguments:

associationRole object of class ISOAssociationRole

Returns: TRUE if added, FALSE otherwise

Method `delRoleName()`**:** Deletes role name

Usage:

```
ISOFeatureAssociation19139$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:

```
ISOFeatureAssociation19139$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 (in ISO 19139) or ISOUomIdentifier / character (in ISO 19115-3)

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 (in ISO 19139) or ISOResponsibility (in ISO 19115-3)

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$setTypeName("typeName")
ft$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::ISOAbstractContentInformation -> ISOFeatureCatalogueDescription

Public fields

complianceCode complianceCode: logical

language language [0..*]: character

locale locale [0..*]: ISOLocale

includedWithDataset includedWithDataset: logical

featureTypes featureTypes [0..*]: GenericName #TODO?

featureCatalogueCitation featureCatalogueCitation [1..*]: ISOCitation

Methods

Public methods:

- ISOFeatureCatalogueDescription$new()
- ISOFeatureCatalogueDescription$setComplianceCode()
- ISOFeatureCatalogueDescription$addLanguage()
- ISOFeatureCatalogueDescription$delLanguage()
- ISOFeatureCatalogueDescription$addLocale()
- ISOFeatureCatalogueDescription$delLocale()
- 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 `addLocale()`**:** Adds locale

Usage:

```
ISOFeatureCatalogueDescription$addLocale(locale)
```

Arguments:

`locale` object of class ISOLocale

Returns: `TRUE` if added, `FALSE` otherwise

Method `delLocale()`**:** Deletes locale

Usage:

```
ISOFeatureCatalogueDescription$delLocale(locale)
```

Arguments:

`locale` object of class ISOLocale

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>

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$addCitedResponsibleParty(rp)
md$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 *ISOFeatureType*

Description

ISOFeatureType

ISOFeatureType

Format

R6Class object.

Value

Object of R6Class for modelling an ISO FeatureType

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOFeatureType

Methods

Public methods:

- ISOFeatureType$new()
- ISOFeatureType$clone()

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

Usage:

```
ISOFeatureType$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
#featuretype
md <- ISOFeatureType$new()
md$setTypeName("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()
```

ISOFeatureType19115_3 *ISOFeatureType19115_3*

Description

ISOFeatureType19115_3

ISOFeatureType19115_3

Format

R6Class object.

Value

Object of R6Class for modelling an ISO FeatureType in ISO 19115-3

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOFeatureType -> ISOFeatureType19115_3

Public fields

typeName typeName [1..1]: character

definition definition [0..1]: character

code code [0..1]: character

isAbstract isAbstract [1..1]: logical

aliases aliases [0..*]: character

designation designation [0..1]: character

carrierOfCharacteristics carrierOfCharacteristics [0..*]: ISOCarrierOfCharacteristics

inheritsFrom inheritsFrom [0..*]: ISOInheritanceRelation

inheritsTo inheritsTo [0..*]: ISOInheritanceRelation

constrainedBy constrainedBy [0..*]: ISOConstraint

definitionReference definitionReference [0..*]: ISODefinitionReference

featureCatalogue featureCatalogue: ISOFeatureCatalogue

Methods

Public methods:

- ISOFeatureType19115_3$new()
- ISOFeatureType19115_3$setTypeName()
- ISOFeatureType19115_3$setDefinition()
- ISOFeatureType19115_3$setCode()
- ISOFeatureType19115_3$setIsAbstract()
- ISOFeatureType19115_3$addAlias()
- ISOFeatureType19115_3$delAlias()
- ISOFeatureType19115_3$setDesignation()
- ISOFeatureType19115_3$addCharacteristic()

- ISOFeatureType19115_3$delCharacteristic()
- ISOFeatureType19115_3$addInheritsFrom()
- ISOFeatureType19115_3$delInheritsFrom()
- ISOFeatureType19115_3$addInheritsTo()
- ISOFeatureType19115_3$delInheritsTo()
- ISOFeatureType19115_3$addConstraint()
- ISOFeatureType19115_3$delConstraint()
- ISOFeatureType19115_3$setDefinitionReference()
- ISOFeatureType19115_3$setFeatureCatalogue()
- ISOFeatureType19115_3$clone()

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

Usage:

```
ISOFeatureType19115_3$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setTypeName()`**:** Set type name

Usage:

```
ISOFeatureType19115_3$setTypeName(typeName)
```

Arguments:

`typeName` type name, object of class character

Method `setDefinition()`**:** Set definition

Usage:

```
ISOFeatureType19115_3$setDefinition(definition, locales = NULL)
```

Arguments:

`definition` definition

`locales` list of localized definitions. Default is `NULL`

Method `setCode()`**:** Set code

Usage:

```
ISOFeatureType19115_3$setCode(code, locales = NULL)
```

Arguments:

`code` definition

`locales` list of localized codes. Default is `NULL`

Method `setIsAbstract()`**:** Set whether feature type is abstract

Usage:

```
ISOFeatureType19115_3$setIsAbstract(isAbstract)
```

Arguments:

`isAbstract` object of class logical

Method `addAlias()`: Adds alias

Usage:

```
ISOFeatureType19115_3$addAlias(alias)
```

Arguments:

`alias` object of class ISOLocalName (in ISO 19139 only) or character (in ISO 19139 or ISO 19115-3)

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAlias()`:

Usage:

```
ISOFeatureType19115_3$delAlias(alias)
```

Arguments:

`alias` object of class ISOLocalName (in ISO 19139 only) or character (in ISO 19139 or ISO 19115-3)

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setDesignation()`: Set designation

Usage:

```
ISOFeatureType19115_3$setDesignation(designation, locales = NULL)
```

Arguments:

`designation` designation

`locales` list of localized designations. Default is `NULL`

Method `addCharacteristic()`: Adds characteristic

Usage:

```
ISOFeatureType19115_3$addCharacteristic(characteristic)
```

Arguments:

`characteristic` characteristic, object inheriting class ISOAbstractCarrierOfCharacteristics

Returns: `TRUE` if added, `FALSE` otherwise

Method `delCharacteristic()`: Deletes characteristic

Usage:

```
ISOFeatureType19115_3$delCharacteristic(characteristic)
```

Arguments:

`characteristic` characteristic, object inheriting class ISOAbstractCarrierOfCharacteristics

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addInheritsFrom()`: Adds 'inheritsFrom' relation

Usage:

```
ISOFeatureType19115_3$addInheritsFrom(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delInheritsFrom()`**:** Deletes 'inheritsFrom' relation

Usage:

```
ISOFeatureType19115_3$delInheritsFrom(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addInheritsTo()`**:** Adds 'inheritsTo' relation

Usage:

```
ISOFeatureType19115_3$addInheritsTo(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delInheritsTo()`**:** Deletes 'inheritsTo' relation

Usage:

```
ISOFeatureType19115_3$delInheritsTo(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addConstraint()`**:** Adds constraint

Usage:

```
ISOFeatureType19115_3$addConstraint(constraint)
```

Arguments:

`constraint` constraint, object of class ISOConstraint

Returns: `TRUE` if added, `FALSE` otherwise

Method `delConstraint()`**:** Deletes constraint

Usage:

```
ISOFeatureType19115_3$delConstraint(constraint)
```

Arguments:

`constraint` constraint, object of class ISOConstraint

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setDefinitionReference()`**:** Set definition reference

Usage:

```
ISOFeatureType19115_3$setDefinitionReference(definitionReference)
```

Arguments:

`definitionReference` object of class ISODefinitionReference

Method `setFeatureCatalogue()`**:** Set feature catalogue

Usage:

```
ISOFeatureType19115_3$setFeatureCatalogue(fc)
```

Arguments:

`fc` object of class ISOFeatureCatalogue

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

Usage:

```
ISOFeatureType19115_3$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
## Not run:
 setMetadataStandard("19115-3") #required
 #featuretype
 md <- ISOFeatureType$new()
 md$setTypeName("typeName")
 md$setDefinition("definition")
 md$setDesignation("designation")
 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()
setMetadataStandard("19139")

## End(Not run)
```

`ISOFeatureType19139` *ISOFeatureType19139*

Description

ISOFeatureType19139

ISOFeatureType19139

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO FeatureType in ISO 19139

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOFeatureType` -> `ISOFeatureType19139`

Public fields

`typeName` typeName [1..1]: ISOLocalName or character

`definition` definition [0..1]: character

`code` code [0..1]: character

`isAbstract` isAbstract [1..1]: logical

`aliases` aliases [0..*]: ISOLocalName or character

`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:

- `ISOFeatureType19139$new()`
- `ISOFeatureType19139$setTypeName()`
- `ISOFeatureType19139$setDefinition()`
- `ISOFeatureType19139$setCode()`
- `ISOFeatureType19139$setIsAbstract()`
- `ISOFeatureType19139$addAlias()`
- `ISOFeatureType19139$delAlias()`
- `ISOFeatureType19139$addInheritsFrom()`
- `ISOFeatureType19139$delInheritsFrom()`
- `ISOFeatureType19139$addInheritsTo()`
- `ISOFeatureType19139$delInheritsTo()`
- `ISOFeatureType19139$setFeatureCatalogue()`
- `ISOFeatureType19139$addConstraint()`
- `ISOFeatureType19139$delConstraint()`
- `ISOFeatureType19139$setDefinitionReference()`
- `ISOFeatureType19139$addCharacteristic()`
- `ISOFeatureType19139$delCharacteristic()`
- `ISOFeatureType19139$clone()`

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

Usage:

```
ISOFeatureType19139$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setTypeName()`**:** Set type name

Usage:

```
ISOFeatureType19139$setTypeName(typeName)
```

Arguments:

`typeName` type name, object of class ISOLocalName or character

Method `setDefinition()`**:** Set definition

Usage:

```
ISOFeatureType19139$setDefinition(definition, locales = NULL)
```

Arguments:

`definition` definition

`locales` list of localized definitions. Default is `NULL`

Method `setCode()`**:** Set code

Usage:

```
ISOFeatureType19139$setCode(code, locales = NULL)
```

Arguments:

`code` definition

`locales` list of localized codes. Default is `NULL`

Method `setIsAbstract()`**:** Set whether feature type is abstract

Usage:

```
ISOFeatureType19139$setIsAbstract(isAbstract)
```

Arguments:

`isAbstract` object of class logical

Method `addAlias()`**:** Adds alias

Usage:

```
ISOFeatureType19139$addAlias(alias)
```

Arguments:

`alias` object of class ISOLocalName or character

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAlias()`**:**

Usage:

```
ISOFeatureType19139$delAlias(alias)
```

Arguments:

`alias` object of class ISOLocalName or character

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addInheritsFrom()`**:** Adds 'inheritsFrom' relation

Usage:

```
ISOFeatureType19139$addInheritsFrom(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delInheritsFrom()`**:** Deletes 'inheritsFrom' relation

Usage:

```
ISOFeatureType19139$delInheritsFrom(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addInheritsTo()`**:** Adds 'inheritsTo' relation

Usage:

```
ISOFeatureType19139$addInheritsTo(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delInheritsTo()`**:** Deletes 'inheritsTo' relation

Usage:

```
ISOFeatureType19139$delInheritsTo(rel)
```

Arguments:

`rel` rel, object of class ISOInheritanceRelation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setFeatureCatalogue()`**:** Set feature catalogue

Usage:

```
ISOFeatureType19139$setFeatureCatalogue(fc)
```

Arguments:

`fc` object of class ISOFeatureCatalogue

Method `addConstraint()`**:** Adds constraint

Usage:

```
ISOFeatureType19139$addConstraint(constraint)
```

Arguments:

`constraint` constraint, object of class ISOConstraint

Returns: `TRUE` if added, `FALSE` otherwise

Method `delConstraint()`**:** Deletes constraint

Usage:

```
ISOFeatureType19139$delConstraint(constraint)
```

Arguments:

`constraint` constraint, object of class ISOConstraint

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setDefinitionReference()`**:** Set definition reference

Usage:

```
ISOFeatureType19139$setDefinitionReference(definitionReference)
```

Arguments:

`definitionReference` object of class ISODefinitionReference

Method `addCharacteristic()`**:** Adds characteristic

Usage:

```
ISOFeatureType19139$addCharacteristic(characteristic)
```

Arguments:

`characteristic` characteristic, object inheriting class ISOAbstractCarrierOfCharacteristics

Returns: `TRUE` if added, `FALSE` otherwise

Method `delCharacteristic()`**:** Deletes characteristic

Usage:

```
ISOFeatureType19139$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:

```
ISOFeatureType19139$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
#featuretype
md <- ISOFeatureType$new()
md$setTypeName("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()
```

`ISOFeatureTypeInfo` *ISOFeatureTypeInfo*

Description

ISOFeatureTypeInfo

ISOFeatureTypeInfo

Format

`R6Class` object.

Value

Object of R6Class for modelling a ISO feature type info

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOFeatureTypeInfo

Public fields

featureTypeName featureTypeName [1..1] : ISOFeatureTypeInfo
featureInstanceCount featureInstanceCount [0..1]: Integer

Methods

Public methods:

- ISOFeatureTypeInfo$new()
- ISOFeatureTypeInfo$setFeatureTypeName()
- ISOFeatureTypeInfo$setFeatureInstanceCount()
- ISOFeatureTypeInfo$clone()

Method new(): Initializes object

Usage:

```
ISOFeatureTypeInfo$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setFeatureTypeName(): Set feature type Name

Usage:

```
ISOFeatureTypeInfo$setFeatureTypeName(name)
```

Arguments:

name object of class ISOAbstractGenericName or character

Method setFeatureInstanceCount(): Set feature instance count

Usage:

```
ISOFeatureTypeInfo$setFeatureInstanceCount(count)
```

Arguments:

count object of class integer

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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.blondel1@gmail.com>

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 (ISO 19139)

`formatSpecificationCitation` format specification citation [1]: ISOCitation

`version` version : CharacterString (ISO 19139)

`amendmentNumber` amendmentNumber [0..1] : CharacterString

`specification` specification [0..1] : CharacterString (ISO 19139)

`fileDecompressionTechnique` fileDecompressionTechnique [0..1] : CharacterString

`medium` medium [0..*] : ISOMedium [0..*] (ISO 19115-3)

`formatDistributor` formatDistributor [0..*]: ISODistributor

Methods

Public methods:

- ISOFormat$new()
- ISOFormat$setName()
- ISOFormat$setFormatSpecificationCitation()
- ISOFormat$setVersion()
- ISOFormat$setAmendmentNumber()
- ISOFormat$setSpecification()
- ISOFormat$setFileDecompressionTechnique()
- ISOFormat$addDistributor()
- ISOFormat$addMedium()
- ISOFormat$delMedium()
- 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 `setFormatSpecificationCitation()`**:** Set format specification citation

Usage:

```
ISOFormat$setFormatSpecificationCitation(citation)
```

Arguments:

`citation` citation

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 `addMedium()`**:** Adds medium

Usage:

```
ISOFormat$addMedium(medium)
```

Arguments:

`medium` object of class ISOMedium

Returns: `TRUE` if added, `FALSE` otherwise

Method `delMedium()`**:** Deletes medium

Usage:

```
ISOFormat$delMedium(medium)
```

Arguments:

`medium` object of class ISOMedium

Returns: `TRUE` if deleted, `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.blondel1@gmail.com>

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::ISOAbstractQualityElement` -> `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>

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>

Examples

```
ft <- ISOFreeText$new()
```

`ISOFullInspection` *ISOFullInspection*

Description

ISOFullInspection

ISOFullInspection

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO full inspection

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOEvaluationMethod` -> `ISOFullInspection`

Methods

Public methods:

- `ISOFullInspection$new()`
- `ISOFullInspection$clone()`

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

Usage:

```
ISOFullInspection$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

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.blondel1@gmail.com>

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>

`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.blondel1@gmail.com>

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.blondel1@gmail.com>

Examples

```
#possible values
values <- ISOGeometricObjectType$values(labels = TRUE)

#point type
pt <- ISOGeometricObjectType$new(value = "point")
```

`ISOGeorectified` *ISOGeorectified*

Description

ISOGeorectified

ISOGeorectified

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Georectified

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractSpatialRepresentation` -> `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.blondel1@gmail.com>

`ISOGeoreferenceable` *ISOGeoreferenceable*

Description

ISOGeoreferenceable

ISOGeoreferenceable

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Georeferenceable

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractSpatialRepresentation` -> `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.blondel1@gmail.com>

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::ISOAbstractQualityElement` -> `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.blondel1@gmail.com>

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::ISOAbstractSpatialRepresentation -> 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.blondel1@gmail.com>

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()
```

ISOHomogeneity *ISOHomogeneity*

Description

ISOHomogeneity

ISOHomogeneity

Format

R6Class object.

Value

Object of R6Class for modelling an ISO homogeneity

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> geometa::ISODataQualityAbstractElement -> geometa::ISOAbstractMetaquality -> ISOHomogeneity

Methods

Public methods:

- ISOHomogeneity$new()
- ISOHomogeneity$clone()

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

Usage:

```
ISOHomogeneity$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOIdentification *ISOIdentification*

Description

ISOIdentification

ISOIdentification

Format

R6Class object.

Value

Object of R6Class for modelling an ISO Identification

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOIdentification

Methods

Public methods:

- ISOIdentification$new()
- ISOIdentification$clone()

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

Usage:

```
ISOIdentification$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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOIdentification19115_3
ISOIdentification19115_3

Description

ISOIdentification19115_3

ISOIdentification19115_3

Format

R6Class object.

Value

Object of R6Class for modelling an ISO Identification in ISO 19115-3

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOIdentification -> ISOIdentification19115_3

Public fields

citation citation: ISOCitation

abstract abstract: character

purpose purpose [0..1]: character

credit credit [0..*]: character

status status [0..*]: ISOProgress

pointOfContact pointOfContact [0..*]: ISOResponsibility

spatialRepresentationType spatialRepresentationType [0..*]: ISOSpatialRepresentationType

spatialResolution spatialResolution [0..*]: ISOResolution

temporalResolution [0..*]: ISOPeriodDuration

topicCategory topicCategory [0..*]: ISOTopicCategory

extent extent [0..*]: ISOExtent (ISO 19139)

additionalDocumentation additional documentation [0..*]: ISOCitation

processingLevel processing level [0..1]: ISOMetaIdentifier

resourceMaintenance resourceMaintenance [0..*]: ISOMaintenanceInformation

graphicOverview graphicOverview [0..*]: ISOBrowseGraphic

resourceFormat resourceFormat [0..*]: ISOFormat

descriptiveKeywords descriptiveKeywords [0..*]: ISOKeywords (ISO 19139)

resourceSpecificUsage resourceSpecificUsage [0..*]: ISOUsage (ISO 19139)

resourceConstraints resourceConstraints [0..*]: ISOLegalConstraints

aggregationInfo aggregationInfo [0..*]: ISOAggregateInformation

Methods

Public methods:

- ISOIdentification19115_3$new()
- ISOIdentification19115_3$setCitation()
- ISOIdentification19115_3$setAbstract()
- ISOIdentification19115_3$setPurpose()
- ISOIdentification19115_3$addCredit()
- ISOIdentification19115_3$delCredit()
- ISOIdentification19115_3$addStatus()
- ISOIdentification19115_3$delStatus()
- ISOIdentification19115_3$addPointOfContact()
- ISOIdentification19115_3$delPointOfContact()
- ISOIdentification19115_3$addSpatialRepresentationType()
- ISOIdentification19115_3$delSpatialRepresentationType()
- ISOIdentification19115_3$addSpatialResolution()
- ISOIdentification19115_3$delSpatialResolution()
- ISOIdentification19115_3$addTemporalResolution()
- ISOIdentification19115_3$delTemporalResolution()
- ISOIdentification19115_3$addTopicCategory()
- ISOIdentification19115_3$delTopicCategory()
- ISOIdentification19115_3$addExtent()
- ISOIdentification19115_3$delExtent()
- ISOIdentification19115_3$addAdditionalDocumentation()
- ISOIdentification19115_3$delAdditionalDocumentation()
- ISOIdentification19115_3$setProcessingLevel()
- ISOIdentification19115_3$addResourceMaintenance()
- ISOIdentification19115_3$delResourceMaintenance()
- ISOIdentification19115_3$addGraphicOverview()
- ISOIdentification19115_3$delGraphicOverview()
- ISOIdentification19115_3$addFormat()
- ISOIdentification19115_3$delFormat()
- ISOIdentification19115_3$addKeywords()
- ISOIdentification19115_3$delKeywords()
- ISOIdentification19115_3$addResourceSpecificUsage()
- ISOIdentification19115_3$delResourceSpecificUsage()
- ISOIdentification19115_3$addResourceConstraints()
- ISOIdentification19115_3$delResourceConstraints()
- ISOIdentification19115_3$addAssociatedResource()
- ISOIdentification19115_3$delAssociatedResource()
- ISOIdentification19115_3$clone()

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

Usage:

```
ISOIdentification19115_3$new(xml = NULL, defaults = list())
```

Arguments:

`xml` object of class XMLInternalNode-class

`defaults` defaults list

Method `setCitation()`**:** Set citation

Usage:

```
ISOIdentification19115_3$setCitation(citation)
```

Arguments:

`citation` object of class ISOCitation

Method `setAbstract()`**:** Set abstract

Usage:

```
ISOIdentification19115_3$setAbstract(abstract, locales = NULL)
```

Arguments:

`abstract` abstract

`locales` list of localized abstracts. Default is `NULL`

Method `setPurpose()`**:** Set purpose

Usage:

```
ISOIdentification19115_3$setPurpose(purpose, locales = NULL)
```

Arguments:

`purpose` purpose

`locales` list of localized texts. Default is `NULL`

Method `addCredit()`**:** Adds credit

Usage:

```
ISOIdentification19115_3$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:

```
ISOIdentification19115_3$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:

```
ISOIdentification19115_3$addStatus(status)
```

Arguments:

`status` object of class ISOProgress or any character among values returned by `ISOProgress$values()`

Returns: `TRUE` if added, `FALSE` otherwise

Method `delStatus()`**:** Deletes status

Usage:

```
ISOIdentification19115_3$delStatus(status)
```

Arguments:

`status` object of class ISOProgress or any character among values returned by `ISOProgress$values()`

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addPointOfContact()`**:** Adds point of contact

Usage:

```
ISOIdentification19115_3$addPointOfContact(pointOfContact)
```

Arguments:

`pointOfContact` object of class ISOResponsibility

Returns: `TRUE` if added, `FALSE` otherwise

Method `delPointOfContact()`**:** Deletes point of contact

Usage:

```
ISOIdentification19115_3$delPointOfContact(pointOfContact)
```

Arguments:

`pointOfContact` object of class ISOResponsibility

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addSpatialRepresentationType()`**:** Adds spatial representation type

Usage:

```
ISOIdentification19115_3$addSpatialRepresentationType(
  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:

```
ISOIdentification19115_3$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:

```
ISOIdentification19115_3$addSpatialResolution(resolution)
```

Arguments:

`resolution` object of class ISOResolution or character

Returns: `TRUE` if added, `FALSE` otherwise

Method `delSpatialResolution()`**:** Deletes spatial resolution

Usage:

```
ISOIdentification19115_3$delSpatialResolution(resolution)
```

Arguments:

`resolution` object of class ISOResolution or character

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addTemporalResolution()`**:** Adds temporal resolution

Usage:

```
ISOIdentification19115_3$addTemporalResolution(resolution)
```

Arguments:

`resolution` object of class ISOPeriodDuration or character

Returns: `TRUE` if added, `FALSE` otherwise

Method `delTemporalResolution()`**:** Deletes temporal resolution

Usage:

```
ISOIdentification19115_3$delTemporalResolution(resolution)
```

Arguments:

`resolution` object of class ISOPeriodDuration or character

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addTopicCategory()`**:** Adds topic category

Usage:

```
ISOIdentification19115_3$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 `delTopicCategory()`**:** Deletes topic category

Usage:

```
ISOIdentification19115_3$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:

```
ISOIdentification19115_3$addExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delExtent()`**:** Deletes extent

Usage:

```
ISOIdentification19115_3$delExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addAdditionalDocumentation()`**:** Adds additional documentation

Usage:

```
ISOIdentification19115_3$addAdditionalDocumentation(additionalDocumentation)
```

Arguments:

`additionalDocumentation` object of class ISOCitation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAdditionalDocumentation()`**:** Deletes additional documentation

Usage:

```
ISOIdentification19115_3$delAdditionalDocumentation(additionalDocumentation)
```

Arguments:

`additionalDocumentation` object of class ISOCitation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setProcessingLevel()`**:** Set processing level

Usage:

```
ISOIdentification19115_3$setProcessingLevel(processingLevel)
```

Arguments:

`processingLevel` object of class ISOMetaIdentifier or character

Method `addResourceMaintenance()`**:** Adds resource maintenance

Usage:

```
ISOIdentification19115_3$addResourceMaintenance(resourceMaintenance)
```

Arguments:

`resourceMaintenance` object of class ISOMaintenanceInformation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResourceMaintenance()`**:** Deletes resource maintenance

Usage:

```
ISOIdentification19115_3$delResourceMaintenance(resourceMaintenance)
```

Arguments:

`resourceMaintenance` object of class ISOMaintenanceInformation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addGraphicOverview()`**:** Adds graphic overview

Usage:

```
ISOIdentification19115_3$addGraphicOverview(graphicOverview)
```

Arguments:

`graphicOverview` object of class ISOBrowseGraphic

Returns: `TRUE` if added, `FALSE` otherwise

Method `delGraphicOverview()`**:** Deletes graphic overview

Usage:

```
ISOIdentification19115_3$delGraphicOverview(graphicOverview)
```

Arguments:

`graphicOverview` object of class ISOBrowseGraphic

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addFormat()`**:** Adds format

Usage:

```
ISOIdentification19115_3$addFormat(format)
```

Arguments:

`format` object of class ISOFormat

Returns: `TRUE` if added, `FALSE` otherwise

Method `delFormat()`**:** Deletes format

Usage:

```
ISOIdentification19115_3$delFormat(format)
```

Arguments:

`format` object of class ISOFormat

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addKeywords()`: Adds keywords

Usage:

```
ISOIdentification19115_3$addKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if added, `FALSE` otherwise

Method `delKeywords()`: Deletes keywords

Usage:

```
ISOIdentification19115_3$delKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addResourceSpecificUsage()`: Adds resource specific usage

Usage:

```
ISOIdentification19115_3$addResourceSpecificUsage(usage)
```

Arguments:

`usage` object of class ISOUsage

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResourceSpecificUsage()`: Deletes resource specific usage

Usage:

```
ISOIdentification19115_3$delResourceSpecificUsage(usage)
```

Arguments:

`usage` object of class ISOUsage

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addResourceConstraints()`: Adds resource constraints

Usage:

```
ISOIdentification19115_3$addResourceConstraints(resourceConstraints)
```

Arguments:

`resourceConstraints` object of class ISOConstraints

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResourceConstraints()`: Deletes resource constraints

Usage:

```
ISOIdentification19115_3$delResourceConstraints(resourceConstraints)
```

Arguments:

`resourceConstraints` object of class ISOConstraints

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addAssociatedResource()`: Adds associated resource

Usage:

```
ISOIdentification19115_3$addAssociatedResource(associatedResource)
```

Arguments:

`associatedResource` object of class ISOAssociatedResource

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAssociatedResource()`: Deletes associated resource

Usage:

```
ISOIdentification19115_3$delAssociatedResource(associatedResource)
```

Arguments:

`associatedResource` object of class ISOAssociatedResource

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

```
ISOIdentification19115_3$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOIdentification19139`

ISOIdentification19139

Description

ISOIdentification19139

ISOIdentification19139

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Identification in ISO 19139

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOIdentification` -> `ISOIdentification19139`

Public fields

`citation` citation: ISOCitation

`abstract` abstract: character

`purpose` purpose [0..1]: character

`credit` credit [0..*]: character

`status` status [0..*]: ISOProgress

`pointOfContact` pointOfContact [0..*]: ISOResponsibleParty

`resourceMaintenance` resourceMaintenance [0..*]: ISOMaintenanceInformation

`graphicOverview` graphicOverview [0..*]: ISOBrowseGraphic

`resourceFormat` resourceFormat [0..*]: ISOFormat

`descriptiveKeywords` descriptiveKeywords [0..*]: ISOKeywords

`resourceSpecificUsage` resourceSpecificUsage [0..*]: ISOUsage

`resourceConstraints` resourceConstraints [0..*]: ISOLegalConstraints

`aggregationInfo` aggregationInfo [0..*]: ISOAggregateInformation

Methods

Public methods:

- `ISOIdentification19139$new()`
- `ISOIdentification19139$setCitation()`
- `ISOIdentification19139$setAbstract()`
- `ISOIdentification19139$setPurpose()`
- `ISOIdentification19139$addCredit()`
- `ISOIdentification19139$delCredit()`
- `ISOIdentification19139$addStatus()`
- `ISOIdentification19139$delStatus()`
- `ISOIdentification19139$addPointOfContact()`
- `ISOIdentification19139$delPointOfContact()`
- `ISOIdentification19139$addResourceMaintenance()`
- `ISOIdentification19139$setResourceMaintenance()`
- `ISOIdentification19139$delResourceMaintenance()`
- `ISOIdentification19139$addGraphicOverview()`
- `ISOIdentification19139$setGraphicOverview()`
- `ISOIdentification19139$delGraphicOverview()`
- `ISOIdentification19139$addFormat()`
- `ISOIdentification19139$delFormat()`
- `ISOIdentification19139$addKeywords()`
- `ISOIdentification19139$setKeywords()`
- `ISOIdentification19139$delKeywords()`
- `ISOIdentification19139$addResourceConstraints()`
- `ISOIdentification19139$delResourceConstraints()`

- ISOIdentification19139$addResourceSpecificUsage()
- ISOIdentification19139$delResourceSpecificUsage()
- ISOIdentification19139$addAggregateInformation()
- ISOIdentification19139$delAggregateInformation()
- ISOIdentification19139$clone()

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

Usage:

```
ISOIdentification19139$new(xml = NULL, defaults = list())
```

Arguments:

`xml` object of class XMLInternalNode-class

`defaults` defaults list

Method `setCitation()`**:** Set citation

Usage:

```
ISOIdentification19139$setCitation(citation)
```

Arguments:

`citation` object of class ISOCitation

Method `setAbstract()`**:** Set abstract

Usage:

```
ISOIdentification19139$setAbstract(abstract, locales = NULL)
```

Arguments:

`abstract` abstract

`locales` list of localized abstracts. Default is `NULL`

Method `setPurpose()`**:** Set purpose

Usage:

```
ISOIdentification19139$setPurpose(purpose, locales = NULL)
```

Arguments:

`purpose` purpose

`locales` list of localized texts. Default is `NULL`

Method `addCredit()`**:** Adds credit

Usage:

```
ISOIdentification19139$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:

```
ISOIdentification19139$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:

```
ISOIdentification19139$addStatus(status)
```

Arguments:

`status` object of class ISOProgress or any character among values returned by `ISOProgress$values()`

Returns: `TRUE` if added, `FALSE` otherwise

Method `delStatus()`**:** Deletes status

Usage:

```
ISOIdentification19139$delStatus(status)
```

Arguments:

`status` object of class ISOProgress or any character among values returned by `ISOProgress$values()`

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addPointOfContact()`**:** Adds point of contact

Usage:

```
ISOIdentification19139$addPointOfContact(pointOfContact)
```

Arguments:

`pointOfContact` object of class ISOResponsibleParty

Returns: `TRUE` if added, `FALSE` otherwise

Method `delPointOfContact()`**:** Deletes point of contact

Usage:

```
ISOIdentification19139$delPointOfContact(pointOfContact)
```

Arguments:

`pointOfContact` object of class ISOResponsibleParty

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addResourceMaintenance()`**:** Adds resource maintenance

Usage:

```
ISOIdentification19139$addResourceMaintenance(resourceMaintenance)
```

Arguments:

`resourceMaintenance` object of class ISOMaintenanceInformation

Returns: `TRUE` if added, `FALSE` otherwise

Method `setResourceMaintenance()`: Set resource maintenance

Usage:

```
ISOIdentification19139$setResourceMaintenance(resourceMaintenance)
```

Arguments:

`resourceMaintenance` object of class ISOMaintenanceInformation

Returns: `TRUE` if set, `FALSE` otherwise

Method `delResourceMaintenance()`: Deletes resource maintenance

Usage:

```
ISOIdentification19139$delResourceMaintenance(resourceMaintenance)
```

Arguments:

`resourceMaintenance` object of class ISOMaintenanceInformation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addGraphicOverview()`: Adds graphic overview

Usage:

```
ISOIdentification19139$addGraphicOverview(graphicOverview)
```

Arguments:

`graphicOverview` object of class ISOBrowseGraphic

Returns: `TRUE` if added, `FALSE` otherwise

Method `setGraphicOverview()`: Sets graphic overview

Usage:

```
ISOIdentification19139$setGraphicOverview(graphicOverview)
```

Arguments:

`graphicOverview` object of class ISOBrowseGraphic

Returns: `TRUE` if set, `FALSE` otherwise

Method `delGraphicOverview()`: Deletes graphic overview

Usage:

```
ISOIdentification19139$delGraphicOverview(graphicOverview)
```

Arguments:

`graphicOverview` object of class ISOBrowseGraphic

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addFormat()`: Adds format

Usage:

```
ISOIdentification19139$addFormat(format)
```

Arguments:

`format` object of class ISOFormat

Returns: `TRUE` if added, `FALSE` otherwise

Method `delFormat()`**:** Deletes format

Usage:

```
ISOIdentification19139$delFormat(format)
```

Arguments:

`format` object of class ISOFormat

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addKeywords()`**:** Adds keywords

Usage:

```
ISOIdentification19139$addKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if added, `FALSE` otherwise

Method `setKeywords()`**:** Set keywords

Usage:

```
ISOIdentification19139$setKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if set, `FALSE` otherwise

Method `delKeywords()`**:** Deletes keywords

Usage:

```
ISOIdentification19139$delKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addResourceConstraints()`**:** Adds resource constraints

Usage:

```
ISOIdentification19139$addResourceConstraints(resourceConstraints)
```

Arguments:

`resourceConstraints` object of class ISOConstraints

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResourceConstraints()`**:** Deletes resource constraints

Usage:

```
ISOIdentification19139$delResourceConstraints(resourceConstraints)
```

Arguments:

`resourceConstraints` object of class ISOConstraints

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addResourceSpecificUsage()`: Adds resource specific usage

Usage:

```
ISOIdentification19139$addResourceSpecificUsage(usage)
```

Arguments:

`usage` object of class ISOUsage

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResourceSpecificUsage()`: Deletes resource specific usage

Usage:

```
ISOIdentification19139$delResourceSpecificUsage(usage)
```

Arguments:

`usage` object of class ISOUsage

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addAggregateInformation()`: Adds aggregate information

Usage:

```
ISOIdentification19139$addAggregateInformation(aggregateInfo)
```

Arguments:

`aggregateInfo` object of class ISOAggregateInformation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAggregateInformation()`: Deletes aggregate information

Usage:

```
ISOIdentification19139$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:

```
ISOIdentification19139$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOImageDescription *ISOImageDescription*

Description

ISOImageDescription

ISOImageDescription

Format

R6Class object.

Value

Object of R6Class for modelling an ISOImageDescription

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractContentInformation -> 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>

Examples

```
#create image description
md <- ISOImageDescription$new()
md$setAttributeDescription("test")
md$setContentType("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>

`ISOImageryAcquisitionInformation`

ISOImageryAcquisitionInformation

Description

ISOImageryAcquisitionInformation

ISOImageryAcquisitionInformation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Imagery AcquisitionInformation

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractAcquisitionInformation` -> `ISOImageryAcquisitionInformation`

Public fields

`scope` scope [0..1]: ISOScope

`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$new()`
- `ISOImageryAcquisitionInformation$setScope()`
- `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 `setScope()`**:** Set scope

Usage:

```
ISOImageryAcquisitionInformation$setScope(scope)
```

Arguments:

`scope` object of class ISOScope

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>

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]: characterlISOLocalisedCharacterString

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>

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.blondel1@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>

Examples

```
#possible values
values <- ISOImageryBandDefinition$values(labels = TRUE)

#some def
fiftyp <- ISOImageryBandDefinition$new(value = "fiftyPercent")
```

`ISOImageryContext` *ISOImageryContext*

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>

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::ISOAbstractContentInformation -> 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>

Examples

```
#create coverage description
md <- ISOImageryCoverageDescription$new()
md$setAttributeDescription("test")
md$setContentType("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

resultScope resultScope [0..1]: ISOScope

dateTime dateTime [0..1]: POSIX/date

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$new()
- ISOImageryCoverageResult$setResultScope()
- ISOImageryCoverageResult$setDateTime()
- ISOImageryCoverageResult$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 `setResultScope()`: Set result scope

Usage:

```
ISOImageryCoverageResult$setResultScope(scope)
```

Arguments:

`scope` object of class ISOScope

Method `setDateTime()`: Set date time

Usage:

```
ISOImageryCoverageResult$setDateTime(dateTime)
```

Arguments:

`dateTime` date time, object of class POSIXct

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 (in ISO 19139) or ISOQualityResultFile (in ISO 19115-3)

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>

`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

`solarAzimuth` solarAzimuth

`solarElevation` solarElevation

Methods

Public methods:

- ISOImageryEnvironmentalRecord$new()
- ISOImageryEnvironmentalRecord$setAverageAirTemperature()
- ISOImageryEnvironmentalRecord$setMaxRelativeHumidity()
- ISOImageryEnvironmentalRecord$setMaxAltitude()
- ISOImageryEnvironmentalRecord$setMeterologicalConditions()
- ISOImageryEnvironmentalRecord$setSolarAzimuth()
- ISOImageryEnvironmentalRecord$setSolarElevation()
- ISOImageryEnvironmentalRecord$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 `setSolarAzimuth()`**:** Set solar azimuth

Usage:

```
ISOImageryEnvironmentalRecord$setSolarAzimuth(solarAzimuth)
```

Arguments:

`solarAzimuth` object of class numeric

Method `setSolarElevation()`**:** Set solar elevation

Usage:

```
ISOImageryEnvironmentalRecord$setSolarElevation(solarElevation)
```

Arguments:

`solarElevation` object of class numeric

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>

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>

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>

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

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOImageryAbstractGeolocationInformat` -> `ISOImageryGCPCollection`

Public fields

`collectionIdentification` collectionIdentification [1..1]: integer

`collectionName` collectionName [1..1]: character|ISOLocalisedCharacterString

`coordinateReferenceSystem` coordinateReferenceSystem [1..1]: ISOAbstractReferenceSystem

`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 inheriting ISOAbstractReferenceSystem

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>

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>

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::ISOAbstractSpatialRepresentation -> geometa::ISOSpatialRepresentation -> geometa::ISOGridSpatialRepresentation -> geometa::ISOGeorectifi -> 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>

`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::ISOAbstractSpatialRepresentation` -> `geometa::ISOSpatialRepresentation` -> `geometa::ISOGridSpatialRepresentation` -> `geometa::ISOGeoreferen` -> `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>

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::ISOAbstractContentInformation -> 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.blondel1@gmail.com>

Examples

```
#create image description
md <- ISOImageryImageDescription$new()
md$setAttributeDescription("test")
md$setContentType("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

`otherPropertyType` otherPropertyType [0..1] : ISORecordType (=> ISO 19115-3)

`otherProperty` otherProperty [0..1] : ISORecord (=> ISO 19115-3)

`sensor` sensor [0..*] : ISOImagerySensor (=> ISO 19115-3)

`history` history [0..*] : ISOInstrumentationEventList (=> ISO 19115-3)

Methods

Public methods:

- `ISOImageryInstrument$new()`
- `ISOImageryInstrument$addCitation()`
- `ISOImageryInstrument$delCitation()`
- `ISOImageryInstrument$setIdentifier()`
- `ISOImageryInstrument$setType()`
- `ISOImageryInstrument$setDescription()`
- `ISOImageryInstrument$addPlatform()`
- `ISOImageryInstrument$delPlatform()`
- `ISOImageryInstrument$setOtherPropertyType()`
- `ISOImageryInstrument$setOtherProperty()`
- `ISOImageryInstrument$addSensor()`
- `ISOImageryInstrument$delSensor()`
- `ISOImageryInstrument$addInstrumentationEventList()`
- `ISOImageryInstrument$delInstrumentationEventList()`
- `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 `setOtherPropertyType()`: setOtherPropertyType

Usage:

```
ISOImageryInstrument$setOtherPropertyType(otherPropertyType)
```

Arguments:

`otherPropertyType` otherPropertyType object of class ISORecordType

Method `setOtherProperty()`: setOtherProperty

Usage:

```
ISOImageryInstrument$setOtherProperty(otherProperty)
```

Arguments:

`otherProperty` otherProperty object of class ISORecord

Method `addSensor()`: Adds sensor

Usage:

```
ISOImageryInstrument$addSensor(sensor)
```

Arguments:

`sensor` object of class ISOImagerySensor

Returns: `TRUE` if added, `FALSE` otherwise

Method `delSensor()`: Deletes sensor

Usage:

```
ISOImageryInstrument$delSensor(sensor)
```

Arguments:

`sensor` object of class ISOImagerySensor

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addInstrumentationEventList()`: Adds instrumentation event list

Usage:

```
ISOImageryInstrument$addInstrumentationEventList(instrumentEventList)
```

Arguments:

`instrumentEventList` object of class ISOInstrumentationEventList

Returns: `TRUE` if added, `FALSE` otherwise

Method `delInstrumentationEventList()`: Adds instrumentation event list

Usage:

```
ISOImageryInstrument$delInstrumentationEventList(instrumentEventList)
```

Arguments:

`instrumentEventList` object of class ISOInstrumentationEventList

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>

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>

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("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$setVoice("myphonenumber")
phone$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$new(
  fileName = "http://wwww.somefile.org/png1",
  fileDescription = "Map Overview 1",
  fileType = "image/png"
)
go2 <- ISOBrowseGraphic$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$new()
scope <- ISODataQualityScope$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 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::ISOAbstractQualityElement -> 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>

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 occurance

Usage:

```
ISOImageryObjective$addObjectiveOccurance(event)
```

Arguments:

`event` object of class ISOImageryEvent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delObjectiveOccurance()`: Deletes objective occurance

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>

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>

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]: characterlISOLocalisedCharacterString

`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

`otherPropertyType` otherPropertyType [0..1] : ISORecordType (=> ISO 19115-3)

`otherProperty` otherProperty [0..1] : ISORecord (=> ISO 19115-3)

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$setOtherPropertyType()
- ISOImageryOperation$setOtherProperty()
- 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 significative event

Usage:

```
ISOImageryOperation$addSignificantEvent(event)
```

Arguments:

event object of class ISOImageryEvent

Returns: TRUE if added, FALSE otherwise

Method delSignificantEvent(): Deletes significative event

Usage:

```
ISOImageryOperation$delSignificantEvent(event)
```

Arguments:

event object of class ISOImageryEvent

Returns: TRUE if deleted, FALSE otherwise

Method setOtherPropertyType(): setOtherPropertyType

Usage:

```
ISOImageryOperation$setOtherPropertyType(otherPropertyType)
```

Arguments:

`otherPropertyType` otherPropertyType object of class ISORecordType

Method `setOtherProperty()`**:** setOtherProperty

Usage:

```
ISOImageryOperation$setOtherProperty(otherProperty)
```

Arguments:

`otherProperty` otherProperty object of class ISORecord

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.blondel1@gmail.com>

`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>

Examples

```
#possible values
values <- ISOImageryOperationType$values(labels = TRUE)

#some def
real <- ISOImageryOperationType$new(value = "real")
```

`ISOImageryPlan` *ISOImageryPlan*

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>

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` *ISOImageryPlatform*

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]: characterlISOLocalisedCharacterString

`sponsor` sponsor [0..*]: ISOResponsibleParty

`instrument` instrument [0..*]: ISOImageryInstrument

`otherPropertyType` otherPropertyType [0..1] : ISORecordType (=> ISO 19115-3)

`otherProperty` otherProperty [0..1] : ISORecord (=> ISO 19115-3)

`history` history [0..*] : ISOInstrumentationEventList (=> ISO 19115-3)

Methods

Public methods:

- `ISOImageryPlatform$new()`
- `ISOImageryPlatform$addCitation()`
- `ISOImageryPlatform$delCitation()`
- `ISOImageryPlatform$setIdentifier()`
- `ISOImageryPlatform$setDescription()`
- `ISOImageryPlatform$addSponsor()`
- `ISOImageryPlatform$delSponsor()`
- `ISOImageryPlatform$addInstrument()`
- `ISOImageryPlatform$delInstrument()`

- ISOImageryPlatform$setOtherPropertyType()
- ISOImageryPlatform$setOtherProperty()
- ISOImageryPlatform$addInstrumentationEventList()
- ISOImageryPlatform$delInstrumentationEventList()
- 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 `setOtherPropertyType()`**:** setOtherPropertyType

Usage:

```
ISOImageryPlatform$setOtherPropertyType(otherPropertyType)
```

Arguments:

`otherPropertyType` otherPropertyType object of class ISORecordType

Method `setOtherProperty()`**:** setOtherProperty

Usage:

```
ISOImageryPlatform$setOtherProperty(otherProperty)
```

Arguments:

`otherProperty` otherProperty object of class ISORecord

Method `addInstrumentationEventList()`**:** Adds instrumentation event list

Usage:

```
ISOImageryPlatform$addInstrumentationEventList(instrumentEventList)
```

Arguments:

`instrumentEventList` object of class ISOInstrumentationEventList

Returns: TRUE if added, FALSE otherwise

Method `delInstrumentationEventList()`**:** Adds instrumentation event list

Usage:

```
ISOImageryPlatform$delInstrumentationEventList(instrumentEventList)
```

Arguments:

`instrumentEventList` object of class ISOInstrumentationEventList

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>

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.blondel1@gmail.com>

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>

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.blondel1@gmail.com>

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>

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()
```

ISOImageryProcessStep *ISOImageryProcessStep*

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>

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>

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..*] : ISORecord

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>

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.blondel1@gmail.com>

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 pr 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.blondel1@gmail.com>

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()
```

ISOImageryRevision *ISOImageryRevision*

Description

ISOImageryRevision

ISOImageryRevision

Format

R6Class object.

Value

Object of R6Class for modelling an ISO imagery revision

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOImageryRevision

Public fields

description description [0..1] : character

author author [1..1] : ISOAbstractResponsibility

dateInfo dateInfo [1..1] : ISOAbstractTypedDate

Methods

Public methods:

- ISOImageryRevision$new()
- ISOImageryRevision$setDescription()
- ISOImageryRevision$setAuthor()
- ISOImageryRevision$setDateInfo()
- ISOImageryRevision$clone()

Method new(): Initializes object

Usage:

```
ISOImageryRevision$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setDescription(): Set description

Usage:

```
ISOImageryRevision$setDescription(description, locales = NULL)
```

Arguments:

`description` description

`locales` list of localized editions. Default is `NULL`

Method `setAuthor()`**:** Set author

Usage:

```
ISOImageryRevision$setAuthor(author)
```

Arguments:

`author` author

Method `setDateInfo()`**:** Set date info

Usage:

```
ISOImageryRevision$setDateInfo(dateInfo)
```

Arguments:

`dateInfo` dateInfo

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOImagerySensor` *ISOImagerySensor*

Description

ISOImagerySensor

ISOImagerySensor

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO imagery sensor

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOImageryInstrument -> ISOImagerySensor

Public fields

hosted hosted [0..*] : ISOImageryInstrument

Methods

Public methods:

- ISOImagerySensor$new()
- ISOImagerySensor$addInstrument()
- ISOImagerySensor$delInstrument()
- ISOImagerySensor$clone()

Method new(): Initializes object

Usage:

```
ISOImagerySensor$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method addInstrument(): Adds instrument

Usage:

```
ISOImagerySensor$addInstrument(instrument)
```

Arguments:

instrument object of class ISOImageryInstrument

Returns: TRUE if added, FALSE otherwise

Method delInstrument(): Deletes instrument

Usage:

```
ISOImagerySensor$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:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOImagerySensorType *ISOImagerySensorType*

Description

ISOImagerySensorType

ISOImagerySensorType

Format

R6Class object.

Value

Object of R6Class for modelling an ISO imagery sensor type

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue -> ISOImagerySensorType

Methods

Public methods:

- ISOImagerySensorType$new()
- ISOImagerySensorType$clone()

Method new(): Initializes object

Usage:

```
ISOImagerySensorType$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:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
md <- ISOImagerySensorType$new(value ="type")
```

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>

Examples

```
#possible values
values <- ISOImagerySequence$values(labels = TRUE)

#some def
inst <- ISOImagerySequence$new(value = "instantaneous")
```

`ISOImagerySource` *ISOImagerySource*

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.blondel1@gmail.com>

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>

Examples

```
#possible values
values <- ISOImageryTransferFunctionType$values(labels = TRUE)

#some def
log <- ISOImageryTransferFunctionType$new(value = "logarithmic")
```

`ISOImageryTrigger` *ISOImageryTrigger*

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>

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::ISOAbstractQualityElement` -> `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>

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.blondel1@gmail.com>

Examples

```
#possible values
values <- ISOImagingCondition$values(labels = TRUE)

#ImagingCondition
ImagingCondition <- ISOImagingCondition$new(value = "rain")
```

`ISOIndirectEvaluation` *ISOIndirectEvaluation*

Description

ISOIndirectEvaluation

ISOIndirectEvaluation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO indirect evaluation

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOEvaluationMethod` -> `ISOIndirectEvaluation`

Methods

Public methods:

- ISOIndirectEvaluation$new()
- ISOIndirectEvaluation$clone()

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

Usage:

```
ISOIndirectEvaluation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOIndividual` *ISOIndividual*

Description

ISOIndividual

ISOIndividual

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO individual

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractParty` -> `ISOIndividual`

Public fields

`positionName` positionName

Methods

Public methods:

- ISOIndividual$new()
- ISOIndividual$setPositionName()
- ISOIndividual$clone()

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

Usage:

```
ISOIndividual$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setPositionName()`**:** Set position name

Usage:

```
ISOIndividual$setPositionName(positionName, locales = NULL)
```

Arguments:

`positionName` position name

`locales` list of localized texts. Default is `NULL`

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

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>

Examples

```
#possible values
values <- ISOInitiativeType$values(labels = TRUE)

#geomOnly
geomOnly <- ISOInitiativeType$new(value = "campaign")
```

ISOInstrumentationEvent

ISOInstrumentationEvent

Description

ISOInstrumentationEvent

ISOInstrumentationEvent

Format

R6Class object.

Value

Object of R6Class for modelling an ISO imagery instrumentation event

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOInstrumentationEvent

Public fields

citation citation [0..*] : ISOAbstractCitation

description description [1..1] : character

extent extent [0..*] : ISOAbstractExtent

type type [1..*] : ISOInstrumentationEventType

revisionHistory revisionHistory [0..*] : ISOImageryRevision

Methods

Public methods:

- ISOInstrumentationEvent$new()
- ISOInstrumentationEvent$addCitation()
- ISOInstrumentationEvent$delCitation()
- ISOInstrumentationEvent$setDescription()
- ISOInstrumentationEvent$addExtent()
- ISOInstrumentationEvent$delExtent()
- ISOInstrumentationEvent$addType()
- ISOInstrumentationEvent$delType()
- ISOInstrumentationEvent$addRevision()
- ISOInstrumentationEvent$delRevision()
- ISOInstrumentationEvent$clone()

Method new(): Initializes object

Usage:

```
ISOInstrumentationEvent$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `addCitation()`**:** Adds citation

Usage:

```
ISOInstrumentationEvent$addCitation(citation)
```

Arguments:

`citation` citation object of class ISOAbstractCitation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delCitation()`**:** Deletes citation

Usage:

```
ISOInstrumentationEvent$delCitation(citation)
```

Arguments:

`citation` citation object of class ISOAbstractCitation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setDescription()`**:** Set description

Usage:

```
ISOInstrumentationEvent$setDescription(description, locales = NULL)
```

Arguments:

`description` description
`locales` list of localized editions. Default is `NULL`

Method `addExtent()`**:** Adds extent

Usage:

```
ISOInstrumentationEvent$addExtent(extent)
```

Arguments:

`extent` extent object of class ISOAbstractExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delExtent()`**:** Deletes extent

Usage:

```
ISOInstrumentationEvent$delExtent(extent)
```

Arguments:

`extent` extent object of class ISOAbstractExtent

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addType()`**:** Adds type

Usage:

```
ISOInstrumentationEvent$addType(type)
```

Arguments:

`type` type object of class ISOInstrumentationEventType or any character value listed by `ISOInstrumentationEventTyp`

Returns: `TRUE` if added, `FALSE` otherwise

Method `delType()`**:** Deletes type

Usage:

```
ISOInstrumentationEvent$delType(type)
```

Arguments:

`type` type object of class ISOInstrumentationEventType or any character value listed by `ISOInstrumentationEventTyp`

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addRevision()`**:** Adds revision

Usage:

```
ISOInstrumentationEvent$addRevision(revision)
```

Arguments:

`revision` revision object of class ISOImageryRevision

Returns: `TRUE` if added, `FALSE` otherwise

Method `delRevision()`**:** Deletes revision

Usage:

```
ISOInstrumentationEvent$delRevision(revision)
```

Arguments:

`revision` revision object of class ISOImageryRevision

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOInstrumentationEventList *ISOInstrumentationEventList*

Description

ISOInstrumentationEventList

ISOInstrumentationEventList

Format

R6Class object.

Value

Object of R6Class for modelling an ISO imagery instrumentation event list

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOInstrumentationEventList

Public fields

citation citation [1..1] : ISOAbstractCitation

description description [1..1] : character

locale locale [0..1] : ISOLocale

metadataConstraints metadataConstraints [0..*] : ISOAbstractConstraints

instrumentationEvent instrumentationEvent [0..*] : ISOInstrumentationEvent

Methods

Public methods:

- ISOInstrumentationEventList$new()
- ISOInstrumentationEventList$setCitation()
- ISOInstrumentationEventList$setDescription()
- ISOInstrumentationEventList$setLocale()
- ISOInstrumentationEventList$addMetadataConstraints()
- ISOInstrumentationEventList$delMetadataConstraints()
- ISOInstrumentationEventList$addInstrumentationEvent()
- ISOInstrumentationEventList$delInstrumentationEvent()
- ISOInstrumentationEventList$clone()

Method new(): Initializes object

Usage:

```
ISOInstrumentationEventList$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setCitation()`**:** Set citation

Usage:

```
ISOInstrumentationEventList$setCitation(citation)
```

Arguments:

`citation` citation

Method `setDescription()`**:** Set description

Usage:

```
ISOInstrumentationEventList$setDescription(description, locales = NULL)
```

Arguments:

`description` description

`locales` list of localized editions. Default is `NULL`

Method `setLocale()`**:** Set locale

Usage:

```
ISOInstrumentationEventList$setLocale(locale)
```

Arguments:

`locale` locale

Method `addMetadataConstraints()`**:** Adds metadata constraints

Usage:

```
ISOInstrumentationEventList$addMetadataConstraints(metadataConstraints)
```

Arguments:

`metadataConstraints` metadataConstraints

Returns: `TRUE` if added, `FALSE` otherwise

Method `delMetadataConstraints()`**:** Deletes metadata constraints

Usage:

```
ISOInstrumentationEventList$delMetadataConstraints(metadataConstraints)
```

Arguments:

`metadataConstraints` metadataConstraints

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addInstrumentationEvent()`**:** Adds instrumentation event

Usage:

```
ISOInstrumentationEventList$addInstrumentationEvent(instrumentationEvent)
```

Arguments:

`instrumentationEvent` instrumentationEvent

Returns: TRUE if added, FALSE otherwise

Method `delInstrumentationEvent()`**:** Deletes instrumentation event

Usage:

```
ISOInstrumentationEventList$delInstrumentationEvent(instrumentationEvent)
```

Arguments:

`instrumentationEvent` instrumentationEvent

Returns: TRUE if deleted, FALSE otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOInstrumentationEventType`
ISOInstrumentationEventType

Description

ISOInstrumentationEventType

ISOInstrumentationEventType

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO instrumentation event type

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOCodeListValue` -> `ISOInstrumentationEventType`

Methods

Public methods:

- ISOInstrumentationEventType$new()
- ISOInstrumentationEventType$clone()

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

Usage:

```
ISOInstrumentationEventType$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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
## Not run:
 setMetadataStandard("19115-3")
 md <- ISOInstrumentationEventType$new("type")
 setMetadataStandard("19139")

## End(Not run)
```

`ISOKeywordClass` *ISOKeywordClass*

Description

ISOKeywordClass

ISOKeywordClass

Format

R6Class object.

Value

Object of R6Class for modelling a ISO keyword class

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOKeywordClass

Public fields

`className` className

`conceptIdentifier` conceptIdentifier

`ontology` ontology

Methods

Public methods:

- ISOKeywordClass$new()
- ISOKeywordClass$setClassName()
- ISOKeywordClass$setConceptIdentifier()
- ISOKeywordClass$setOntology()
- ISOKeywordClass$clone()

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

Usage:

```
ISOKeywordClass$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setClassName()`**:** Set class name

Usage:

```
ISOKeywordClass$setClassName(className, locales = NULL)
```

Arguments:

`className` className

`locales` list of localized texts. Default is `NULL`

Method `setConceptIdentifier()`**:** Set concept identifier

Usage:

```
ISOKeywordClass$setConceptIdentifier(conceptIdentifier)
```

Arguments:

`conceptIdentifier` conceptIdentifier, object of class ISOURI

Method `setOntology()`**:** Set ontology

Usage:

```
ISOKeywordClass$setOntology(ontology)
```

Arguments:

`ontology` ontology, object inheriting class ISOAbstractParty

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

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 *ISOKeywordType*

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>

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>

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>

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>

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>

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 (ISO 19139)

language language [1..1]: ISOLanguage (ISO 19115-3)

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,
  characterEncoding = NULL
)
```

Arguments:

xml object of class XMLInternalNode-class

id id

language language

country country

characterEncoding characterEncoding

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>

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

`language` language [1..1]: ISOLanguage

`country` country [0..1]: ISOCountry

`characterEncoding` character encoding [0..1]: ISOCharacterSet

`description` description [1..1]

`locale` locale [1..1]

`date` date [1..*]

`responsibleParty` responsibleParty [1..*]

`localisedString` localisedString [1..*]

Methods

Public methods:

- `ISOLocaleContainer$new()`
- `ISOLocaleContainer$setLanguage()`
- `ISOLocaleContainer$setCountry()`
- `ISOLocaleContainer$setCharacterEncoding()`
- `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 `setLanguage()`**:** Set language

Usage:

```
ISOLocaleContainer$setLanguage(language)
```

Arguments:

`language` object of class ISOLanguage or character

Method `setCountry()`**:** Set country

Usage:

```
ISOLocaleContainer$setCountry(country)
```

Arguments:

`country` object of class ISOCountry or character

Method `setCharacterEncoding()`**:** Set character encoding

Usage:

```
ISOLocaleContainer$setCharacterEncoding(characterEncoding)
```

Arguments:

`characterEncoding` object of class ISOCharacterSet or character

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 (in ISO 19139) or ISOResponsibility (in ISO 19115-3)

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResponsibleParty()`**:** Deletes responsible party

Usage:

```
ISOLocaleContainer$delResponsibleParty(responsibleParty)
```

Arguments:

`responsibleParty` object of class ISOResponsibleParty (in ISO 19139) or ISOResponsibility (in ISO 19115-3)

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>

`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>

Examples

```
str <- ISOLocalisedCharacterString$new(locale = "FR", value = "ma description")
str$encode()
```

ISOLocalName *ISOLocalName*

Description

ISOLocalName

ISOLocalName

Format

R6Class object.

Value

Object of R6Class for modelling an ISO LocalName

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLCodeType -> geometa::ISOAbstractGene
-> 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>

`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>

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>

Examples

```
md <- ISOMaintenanceInformation$new()
md$setMaintenanceFrequency("daily")
xml <- md$encode()
```

ISOMDFeatureCatalogue *ISOMDFeatureCatalogue*

Description

ISOMDFeatureCatalogue

ISOMDFeatureCatalogue

Format

R6Class object.

Value

Object of R6Class for modelling a ISO feature catalogue

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractContentInformation -> ISOMDFeatureCatalogue

Public fields

featureCatalogue featureCatalogue [1..*] : ISOAbstractFeatureCatalogue

Methods

Public methods:

- ISOMDFeatureCatalogue$new()
- ISOMDFeatureCatalogue$addFeatureCatalogue()
- ISOMDFeatureCatalogue$delFeatureCatalogue()
- ISOMDFeatureCatalogue$clone()

Method new(): Initializes object

Usage:

```
ISOMDFeatureCatalogue$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method addFeatureCatalogue(): Adds feature catalogue

Usage:

```
ISOMDFeatureCatalogue$addFeatureCatalogue(featureCatalogue)
```

Arguments:

featureCatalogue object inheriting class ISOAbstractFeatureCatalogue

Returns: TRUE if added, FALSE otherwise

Method `delFeatureCatalogue()`**:** Adds feature catalogue

Usage:

```
ISOMDFeatureCatalogue$delFeatureCatalogue(featureCatalogue)
```

Arguments:

`featureCatalogue` object inheriting class ISOAbstractFeatureCatalogue

Returns: TRUE if deleted, FALSE otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

`ISOMeasureReference` *ISOMeasureReference*

Description

ISOMeasureReference

ISOMeasureReference

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO measure reference

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOMeasureReference`

Public fields

`measureIdentification` measureIdentification [0..1]: ISOMetaIdentifier

`nameOfMeasure` nameOfMeasure [0..*]: character

`measureDescription` measureDescription [0..1]: character

Methods

Public methods:

- `ISOMeasureReference$new()`
- `ISOMeasureReference$setMeasureIdentification()`
- `ISOMeasureReference$addName()`
- `ISOMeasureReference$delName()`
- `ISOMeasureReference$setMeasureDescription()`
- `ISOMeasureReference$clone()`

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

Usage:

```
ISOMeasureReference$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setMeasureIdentification()`**:** set MeasureIdentification

Usage:

```
ISOMeasureReference$setMeasureIdentification(measureIdentifier)
```

Arguments:

`measureIdentifier` object of class ISOMetaIdentifier

Method `addName()`**:** Adds name

Usage:

```
ISOMeasureReference$addName(name, locales = NULL)
```

Arguments:

`name` name

`locales` list of localized names. Default is `NULL`

Returns: `TRUE` if added, `FALSE` otherwise

Method `delName()`**:** Deletes name

Usage:

```
ISOMeasureReference$delName(name, locales = NULL)
```

Arguments:

`name` name

`locales` list of localized names. Default is `NULL`

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setMeasureDescription()`: set measure description

Usage:

```
ISOMeasureReference$setMeasureDescription(measureDescription)
```

Arguments:

`measureDescription` object of class character

`locales` list of localized descriptions. Default is `NULL`

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

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 *ISOMediumFormat*

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>

Examples

```
#possible values
values <- ISOMediumFormat$values(labels = TRUE)

#MediumFormat
MediumFormat <- ISOMediumFormat$new(value = "tar")
```

`ISOMediumName` *ISOMediumName*

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.blondel1@gmail.com>

References

ISO 19115:2003 - Geographic information – Metadata

Examples

```
#possible values
values <- ISOMediumName$values(labels = TRUE)

#MediumName
MediumName <- ISOMediumName$new(value = "satellite")
```

`ISOMemberName` *ISOMemberName*

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>

`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 (ISO 19139)

`metadataIdentifier` metadataIdentifier [0..1] : ISOMetaIdentifier (ISO 19115-3)

`language` language [0..1] : character (ISO 19139)

`defaultLocale` [0..1] : ISOLocale (ISO 19115-3)

`characterSet` characterSet [0..1] : ISOCharacterSet = "utf8"

`parentIdentifier` parentIdentifier [0..1] : character

`parentMetadata` parentMetadata [0..1]: ISOCitation (ISO 19115-3)

`hierarchyLevel` hierarchyLevel [0..*] : ISOScopeCode = "dataset"

`hierarchyLevelName` hierarchyLevelName [0..*] : character

`metadataScope` metadataScope [0..*] : ISOMetadataScope (ISO 19115-3)

`contact` contact [1..*] : ISOResponsibleParty

`dateStamp` dateStamp : POSIXct/POSIXt

`dateInfo` dateInfo [1..*] : ISODate

`metadataStandardName` metadataStandardName [0..1] : character (ISO 19139)

`metadataStandardVersion` metadataStandardVersion [0..1] : character (ISO 19139)

`metadataStandard` metadataStandard [0..*] : ISOCitation (ISO 19115-3)

`metadataProfile` metadataProfile [0..*] : ISOCitation (ISO 19115-3)

`alternativeMetadataReference` alternativeMetadataReference [0..*] : ISOCitation (ISO 19115-3)

`otherLocale` otherLocale [0..*] : ISOLocale (ISO 19115-3)

`dataSetURI` dataSetURI [0..1] : character (ISO 19139)

`metadataLinkage` metadataLinkage [0..*] : ISOOnlineResource (ISO 19115-3)

`locale` locale [0..*]: ISOLocale (ISO 19139)

`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

`resourceLineage` resourceLineage [0..*]: ISOLineage (ISO 19115-3)

`metadataMaintenance` metadataMaintenance [0..1]: ISOMaintenanceInformation

`portrayalCatalogueInfo` portrayalCatalogueInfo [0..*]

`applicationSchemaInformation` applicationSchemaInfo [0..*]

Methods

Public methods:

- `ISOMetadata$new()`
- `ISOMetadata$setFileIdentifier()`
- `ISOMetadata$setMetadataIdentifier()`
- `ISOMetadata$setLanguage()`
- `ISOMetadata$setDefaultLocale()`
- `ISOMetadata$setCharacterSet()`
- `ISOMetadata$setParentIdentifier()`
- `ISOMetadata$setParentMetadata()`
- `ISOMetadata$addHierarchyLevel()`
- `ISOMetadata$delHierarchyLevel()`
- `ISOMetadata$addHierarchyLevelName()`
- `ISOMetadata$delHierarchyLevelName()`
- `ISOMetadata$addMetadataScope()`

- ISOMetadata$delMetadataScope()
- ISOMetadata$addContact()
- ISOMetadata$delContact()
- ISOMetadata$setDateStamp()
- ISOMetadata$addDate()
- ISOMetadata$delDate()
- ISOMetadata$setMetadataStandardName()
- ISOMetadata$setMetadataStandardVersion()
- ISOMetadata$addMetadataStandard()
- ISOMetadata$delMetadataStandard()
- ISOMetadata$addMetadataProfile()
- ISOMetadata$delMetadataProfile()
- ISOMetadata$addAlternativeMetadataReference()
- ISOMetadata$delAlternativeMetadataReference()
- ISOMetadata$setDataSetURI()
- ISOMetadata$addMetadataLinkage()
- ISOMetadata$delMetadataLinkage()
- ISOMetadata$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$addResourceLineage()
- ISOMetadata$delResourceLineage()
- ISOMetadata$setMetadataMaintenance()
- ISOMetadata$addContentInfo()
- ISOMetadata$delContentInfo()
- ISOMetadata$addPortrayalCatalogueInfo()
- ISOMetadata$delPortrayalCatalogueInfo()
- ISOMetadata$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 `setMetadataIdentifier()`: set metadata identifier

Usage:

```
ISOMetadata$setMetadataIdentifier(metadataIdentifier)
```

Arguments:

`metadataIdentifier` metadata 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 `setDefaultLocale()`: Set default locale

Usage:

```
ISOMetadata$setDefaultLocale(locale)
```

Arguments:

`locale` object of class ISOLocale

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 `setParentMetadata()`**:** Set parent metadata

Usage:

```
ISOMetadata$setParentMetadata(parentMetadata)
```

Arguments:

`parentMetadata` parent metadata

Method `addHierarchyLevel()`**:** Adds hierarchy level

Usage:

```
ISOMetadata$addHierarchyLevel(level)
```

Arguments:

`level` object of class ISOScopeCode or any character from values returned by `ISOScopeCode$values()`

Returns: `TRUE` if added, `FALSE` otherwise

Method `delHierarchyLevel()`**:** Deletes hierarchy level

Usage:

```
ISOMetadata$delHierarchyLevel(level)
```

Arguments:

`level` object of class ISOScopeCode or any character from values returned by `ISOScopeCode$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 `addMetadataScope()`**:** Adds metadata scope

Usage:

```
ISOMetadata$addMetadataScope(metadataScope)
```

Arguments:

`metadataScope` object of class ISOMetadataScope or any character among values returned by `ISOScopeCode$values()`

Returns: `TRUE` if added, `FALSE` otherwise

Method `delMetadataScope()`**:** Deletes metadata scope

Usage:

```
ISOMetadata$delMetadataScope(metadataScope)
```

Arguments:

`metadataScope` object of class ISOMetadataScope or any character among values returned by `ISOScopeCode$values()`

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addContact()`**:** Adds contact

Usage:

```
ISOMetadata$addContact(contact)
```

Arguments:

`contact` object of class ISOResponsibleParty for ISO 19139 or inheriting class ISOAbstractResponsibility for ISO 19115-3

Returns: `TRUE` if added, `FALSE` otherwise

Method `delContact()`**:** Deletes contact

Usage:

```
ISOMetadata$delContact(contact)
```

Arguments:

`contact` object of class ISOResponsibleParty for ISO 19139 or inheriting class ISOAbstractResponsibility for ISO 19115-3

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setDateStamp()`**:** Set date stamp

Usage:

```
ISOMetadata$setDateStamp(date)
```

Arguments:

`date` date

Method `addDate()`**:** Adds date

Usage:

```
ISOMetadata$addDate(date)
```

Arguments:

`date` object of class ISODate

Returns: `TRUE` if added, `FALSE` otherwise

Method `delDate()`**:** Deletes date

Usage:

```
ISOMetadata$delDate(date)
```

Arguments:

`date` object of class ISODate

Returns: TRUE if deleted, FALSE otherwise

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 `addMetadataStandard()`: Adds metadata standard

Usage:

```
ISOMetadata$addMetadataStandard(metadataStandard)
```

Arguments:

`metadataStandard` object of class ISOCitation or character

Returns: TRUE if added, FALSE otherwise

Method `delMetadataStandard()`: Deletes metadata standard

Usage:

```
ISOMetadata$delMetadataStandard(metadataStandard)
```

Arguments:

`metadataStandard` object of class ISOCitation or character

Returns: TRUE if deleted, FALSE otherwise

Method `addMetadataProfile()`: Adds metadata profile

Usage:

```
ISOMetadata$addMetadataProfile(metadataProfile)
```

Arguments:

`metadataProfile` object of class ISOCitation or character

Returns: TRUE if added, FALSE otherwise

Method `delMetadataProfile()`: Deletes metadata profile

Usage:

```
ISOMetadata$delMetadataProfile(metadataProfile)
```

Arguments:

`metadataProfile` object of class ISOCitation or character

Returns: TRUE if deleted, FALSE otherwise

Method `addAlternativeMetadataReference()`**:** Adds alternative metadata reference

Usage:

```
ISOMetadata$addAlternativeMetadataReference(alternativeMetadataReference)
```

Arguments:

`alternativeMetadataReference` object of class ISOCitation or character

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAlternativeMetadataReference()`**:** Deletes alternative metadata reference

Usage:

```
ISOMetadata$delAlternativeMetadataReference(alternativeMetadataReference)
```

Arguments:

`alternativeMetadataReference` object of class ISOCitation or character

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setDataSetURI()`**:** Set dataset URI

Usage:

```
ISOMetadata$setDataSetURI(dataSetURI)
```

Arguments:

`dataSetURI` dataset URI

Method `addMetadataLinkage()`**:** Adds metadata linkage

Usage:

```
ISOMetadata$addMetadataLinkage(metadataLinkage)
```

Arguments:

`metadataLinkage` object of class ISOOnlineResource

Returns: `TRUE` if added, `FALSE` otherwise

Method `delMetadataLinkage()`**:** Deletes metadata linkage

Usage:

```
ISOMetadata$delMetadataLinkage(metadataLinkage)
```

Arguments:

`metadataLinkage` object of class ISOOnlineResource

Returns: `TRUE` if deleted, `FALSE` otherwise

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 `addResourceLineage()`: Adds lineage info

Usage:

```
ISOMetadata$addResourceLineage(lineageInfo)
```

Arguments:

`lineageInfo` object of class ISOLineage

Returns: `TRUE` if added, `FALSE` otherwise

Method `delResourceLineage()`: Deletes lineage info

Usage:

```
ISOMetadata$delResourceLineage(lineageInfo)
```

Arguments:

`lineageInfo` object of class ISOLineage

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 ISOAbstractContentInformation

Returns: `TRUE` if added, `FALSE` otherwise

Method `delContentInfo()`**:** Deletes content information

Usage:

```
ISOMetadata$delContentInfo(contentInfo)
```

Arguments:

`contentInfo` object of class inheriting ISOAbstractContentInformation

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addPortrayalCatalogueInfo()`**:** Adds portrayal catalogue info

Usage:

```
ISOMetadata$addPortrayalCatalogueInfo(portrayalCatalogueInfo)
```

Arguments:

`portrayalCatalogueInfo` object of class inheriting ISOPortrayalCatalogueReference

Returns: `TRUE` if added, `FALSE` otherwise

Method `delPortrayalCatalogueInfo()`**:** Deletes portrayal catalogue info

Usage:

```
ISOMetadata$delPortrayalCatalogueInfo(portrayalCatalogueInfo)
```

Arguments:

`portrayalCatalogueInfo` object of class inheriting ISOPortrayalCatalogueReference

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>

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("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$new(
  fileName = "http://wwww.somefile.org/png1",
  fileDescription = "Map Overview 1",
  fileType = "image/png"
)
go2 <- ISOBrowseGraphic$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$new()
scope <- ISODataQualityScope$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.blondel1@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

`standard` standard

Methods

Public methods:

- `ISOMetadataNamespace$new()`
- `ISOMetadataNamespace$getDefinition()`
- `ISOMetadataNamespace$getStandard()`
- `ISOMetadataNamespace$clone()`

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

Usage:

```
ISOMetadataNamespace$new(id, uri, standard = NA)
```

Arguments:

`id` id

`uri` uri

`standard` standard

Method `getDefinition()`**:** Get definition

Usage:

```
ISOMetadataNamespace$getDefinition()
```

Returns: an object of class list

Method `getStandard()`**:** Get standard

Usage:

```
ISOMetadataNamespace$getStandard()
```

Returns: object of class data.frame

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.blondel1@gmail.com>

ISOMetadataScope *ISOMetadataScope*

Description

ISOMetadataScope

ISOMetadataScope

Format

R6Class object.

Value

Object of R6Class for modelling an ISO MetadataScope

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOMetadataScope

Public fields

resourceScope resource scope

name name

Methods

Public methods:

- ISOMetadataScope$new()
- ISOMetadataScope$setResourceScope()
- ISOMetadataScope$setName()
- ISOMetadataScope$clone()

Method new(): Initializes object

Usage:

```
ISOMetadataScope$new(xml = NULL, resourceScope = NULL, name = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

resourceScope resource scope

name name

Method setResourceScope(): Set resource scope

Usage:

```
ISOMetadataScope$setResourceScope(resourceScope)
```

Arguments:

`resourceScope` resource scope

Method `setName()`**:** Set name

Usage:

```
ISOMetadataScope$setName(name, locales = NULL)
```

Arguments:

`name` name

`locales` a list of localized names. Default is `NULL`

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
## Not run:
 setMetadataStandard("19115-3")
 md <- ISOMetadataScope$new(
  resourceScope = "service",
  name = "Internal service"
 )
 xml <- md$encode()
 setMetadataStandard("19139")

## End(Not run)
```

`ISOMetaIdentifier` *ISOMetaIdentifier*

Description

ISOMetaIdentifier

ISOMetaIdentifier

Format

`R6Class` object.

Value

Object of R6Class for modelling an ISO MetaIdentifier

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOMetaIdentifier

Public fields

authority authority [0..1]: ISOCitation

code code [1..1]: character

codeSpace codeSpace [0..1]: character (ISO 19115-3)

version version [0..1]: character (ISO 19115-3)

description description [0..1]: character (ISO 19115-3)

Methods

Public methods:

- ISOMetaIdentifier$new()
- ISOMetaIdentifier$setAuthority()
- ISOMetaIdentifier$setCode()
- ISOMetaIdentifier$setCodeSpace()
- ISOMetaIdentifier$setVersion()
- ISOMetaIdentifier$setDescription()
- ISOMetaIdentifier$clone()

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

Usage:

```
ISOMetaIdentifier$new(xml = NULL, code = NULL, codeSpace = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

code code

codeSpace code space

Method `setAuthority()`**:** Set authority

Usage:

```
ISOMetaIdentifier$setAuthority(authority)
```

Arguments:

authority object of class ISOCitation

Method `setCode()`**:** Set code

Usage:

```
ISOMetaIdentifier$setCode(code)
```

Arguments:

`code` code

Method `setCodeSpace()`**:** Set codeSpace

Usage:

```
ISOMetaIdentifier$setCodeSpace(codeSpace)
```

Arguments:

`codeSpace` codeSpace

Method `setVersion()`**:** Set version

Usage:

```
ISOMetaIdentifier$setVersion(version)
```

Arguments:

`version` version

Method `setDescription()`**:** Set description

Usage:

```
ISOMetaIdentifier$setDescription(description)
```

Arguments:

`description` description

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>

Examples

```
md <- ISOMetaIdentifier$new(code = "identifier")
xml <- md$encode()
```

ISOMimeFileType *ISOMimeFileType*

Description

ISOMimeFileType

ISOMimeFileType

Format

R6Class object.

Value

Object of R6Class for modelling an ISO MimeFileType

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOMimeFileType

Methods

Public methods:

- ISOMimeFileType$new()
- ISOMimeFileType$setName()
- ISOMimeFileType$setType()
- ISOMimeFileType$clone()

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

Usage:

```
ISOMimeFileType$new(xml = NULL, type = NULL, name = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

`type` type

`name` name

Method `setName()`**:** Set name

Usage:

```
ISOMimeFileType$setName(name)
```

Arguments:

`name` name

Method `setType()`**:** Set type

Usage:

```
ISOMimeFileType$setType(type)
```

Arguments:

`type` type

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
md <- ISOMimeFileType$new(type = "somemimetype", name = "Mime type name")
xml <- md$encode()
```

`ISOMLCodeDefinition` *ISOMLCodeDefinition*

Description

ISOMLCodeDefinition

ISOMLCodeDefinition

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Metadata code definition

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOCodeDefinition` -> `ISOMLCodeDefinition`

Methods

Public methods:

- ISOMLCodeDefinition$new()
- ISOMLCodeDefinition$clone()

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

Usage:

```
ISOMLCodeDefinition$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

```
ISOMLCodeDefinition$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/TS 19139:2007 Geographic information – XML

`ISOMLCodeListDictionary` *ISOMLCodeListDictionary*

Description

ISOMLCodeListDictionary

ISOMLCodeListDictionary

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Metadata codelist dictionary

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListDictionary -> ISOMLCodeListDictionary

Methods

Public methods:

- ISOMLCodeListDictionary$new()
- ISOMLCodeListDictionary$clone()

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

Usage:

```
ISOMLCodeListDictionary$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

```
ISOMLCodeListDictionary$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/TS 19139:2007 Geographic information – XML

`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>

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>

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::ISOAbstractQualityElement -> 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>

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()
```

ISONonQuantitativeAttributeCorrectness

ISONonQuantitativeAttributeCorrectness

Description

ISONonQuantitativeAttributeCorrectness

ISONonQuantitativeAttributeCorrectness

Format

R6Class object.

Value

Object of R6Class for modelling an ISONonQuantitativeAttributeCorrectness

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> geometa::ISODataQualityAbstractElement -> geometa::ISOAbstractTemporalAccuracy -> ISONonQuantitativeAttributeCorrectness

Methods

Public methods:

- ISONonQuantitativeAttributeCorrectness$clone()

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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` *ISOOnLineFunction*

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>

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 -> geometa::ISOAbstractOnlineResource -> ISOOnlineResource

Public fields

linkage linkage

protocol protocol

applicationProfile application profile

name name

description description

function function

protocolRequest protocol request in (ISO 19115-3)

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.blondel1@gmail.com>

Examples

```
md <- ISOOnlineResource$new()
md$setLinkage("http://somelink")
md$setName("name")
md$setDescription("description")
md$setProtocol("protocol")
md$setOnLineFunction("download")
xml <- md$encode()
```

ISOOperationChainMetadata

ISOOperationChainMetadata

Description

ISOOperationChainMetadata

ISOOperationChainMetadata

Format

R6Class object.

Value

Object of R6Class for modelling an ISOOperationChainMetadata

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOOperationChainMetadata

Public fields

name name [1..1]: character

description description [1..1]: character

operation operation [1..*]: ISOOperationMetadata

Methods

Public methods:

- ISOOperationChainMetadata$new()
- ISOOperationChainMetadata$setName()
- ISOOperationChainMetadata$setDescription()
- ISOOperationChainMetadata$addOperation()
- ISOOperationChainMetadata$delOperation()
- ISOOperationChainMetadata$clone()

Method new(): Initializes object

Usage:

```
ISOOperationChainMetadata$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setName(): Set name

Usage:

```
ISOOperationChainMetadata$setName(name, locales = NULL)
```

Arguments:

`name` name

`locales` list of localized texts. Default is `NULL`

Method `setDescription()`**:** Set description

Usage:

```
ISOOperationChainMetadata$setDescription(description, locales = NULL)
```

Arguments:

`description` description

`locales` list of localized texts. Default is `NULL`

Method `addOperation()`**:** Adds operation metadata

Usage:

```
ISOOperationChainMetadata$addOperation(operation)
```

Arguments:

`operation` object of class ISOOperationMetadata

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOperation()`**:** Deletes operation metadata

Usage:

```
ISOOperationChainMetadata$delOperation(operation)
```

Arguments:

`operation` object of class ISOOperationMetadata

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
md <- ISOOperationChainMetadata$new()
xml <- md$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..*]: ISOSRVParameter

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 ISOSRVParameter

Returns: `TRUE` if added, `FALSE` otherwise

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

Usage:

```
ISOOperationMetadata$delParameter(parameter)
```

Arguments:

`parameter` object of class ISOSRVParameter

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>

Examples

```
md <- ISOOperationMetadata$new()
xml <- md$encode()
```

`ISOOrganisation` *ISOOrganisation*

Description

ISOOrganisation

ISOOrganisation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO organisation

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractParty` -> `ISOOrganisation`

Public fields

`individual` individual

Methods

Public methods:

- `ISOOrganisation$new()`
- `ISOOrganisation$addIndividual()`
- `ISOOrganisation$delIndividual()`
- `ISOOrganisation$clone()`

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

Usage:

```
ISOOrganisation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `addIndividual()`**:** Adds individual

Usage:

```
ISOOrganisation$addIndividual(individual)
```

Arguments:

`individual` object of class ISOIndividual

Returns: `TRUE` if added, `FALSE` otherwise

Method `delIndividual()`**:** Deletes individual

Usage:

```
ISOOrganisation$delIndividual(individual)
```

Arguments:

`individual` object of class ISOIndividual

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOOtherAggregate *ISOOtherAggregate*

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

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>

Examples

```
#possible values
values <- ISOParameterDirection$values(labels = TRUE)

#paramDir
paramDir <- ISOParameterDirection$new(value = "in")
```

`ISOPeriodDuration` *ISOPeriodDuration*

Description

ISOPeriodDuration

ISOPeriodDuration

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO PeriodDuration

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOPeriodDuration`

Public fields

`value` value

Methods

Public methods:

- `ISOPeriodDuration$new()`
- `ISOPeriodDuration$setDuration()`
- `ISOPeriodDuration$clone()`

Method `new()`**:** Initializes a period duration

Usage:

```
ISOPeriodDuration$new(
  xml = NULL,
  value = NULL,
  years = 0,
  months = 0,
  days = 0,
```

```
  hours = 0,
  mins = 0,
  secs = 0,
  start = NULL,
  end = NULL
)
```

Arguments:

`xml` object of class XMLInternalNode-class

`value` value

`years` years

`months` months

`days` days

`hours` hours

`mins` mins

`secs` secs

`start` start position

`end` end position

Method `setDuration()`**:** Computes period duration

Usage:

```
ISOPeriodDuration$setDuration(
  years = 0,
  months = 0,
  days = 0,
  hours = 0,
  mins = 0,
  secs = 0,
  start = NULL,
  end = NULL
)
```

Arguments:

`years` years

`months` months

`days` days

`hours` hours

`mins` mins

`secs` secs

`start` start position

`end` end position

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

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>

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$setVoice("myphonenumber")
phone$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$setContactInfo(contact)
ct <- ISOCitation$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>

Examples

```
#possible values
values <- ISOPresentationForm$values(labels = TRUE)

#mapDigital type
map <- ISOPresentationForm$new(value = "mapDigital")
```

`ISOProcessParameter` *ISOProcessParameter*

Description

ISOProcessParameter

ISOProcessParameter

Format

`R6Class` object.

Value

Object of R6Class for modelling an ISO process parameter

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractParameter -> ISOProcessParameter

Methods

Public methods:

- ISOProcessParameter$new()
- ISOProcessParameter$clone()

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

Usage:

```
ISOProcessParameter$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

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.blondel1@gmail.com>

References

ISO 19115:2003 - Geographic information – Metadata

`ISOProgress` *ISOProgress*

Description

ISOProgress

ISOProgress

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO progress status

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOCodeListValue` -> `ISOProgress`

Methods

Public methods:

- `ISOProgress$new()`
- `ISOProgress$clone()`

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

Usage:

```
ISOProgress$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:

```
ISOProgress$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 ISO/TS 19115-3:2016 - Geographic information — Metadata — Part 3: XML schema implementation for fundamental concepts

Examples

```
#possible values
values <- ISOProgress$values(labels = TRUE)

#pending status
pending <- ISOProgress$new(value = "pending")
```

`ISOPropertyType` *ISOPropertyType*

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

`ISOQualityResultFile` *ISOQualityResultFile*

Description

ISOQualityResultFile

ISOQualityResultFile

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO quality result file

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOQualityResultFile`

Public fields

`fileName` fileName [1]: ISOFileName

`fileType` fileType [1]: ISOMimeFileType

`fileDescription` fileDescription [1]: character

`fileFormat` fileFormat [1]: ISOFormat

Methods

Public methods:

- ISOQualityResultFile$new()
- ISOQualityResultFile$setFileName()
- ISOQualityResultFile$setFileType()
- ISOQualityResultFile$setFileDescription()
- ISOQualityResultFile$setFileFormat()
- ISOQualityResultFile$clone()

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

Usage:

```
ISOQualityResultFile$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setFileName()`**:** Set file name

Usage:

```
ISOQualityResultFile$setFileName(fileName)
```

Arguments:

`fileName` filename object of class ISOFileName

Method `setFileType()`**:** Set file type

Usage:

```
ISOQualityResultFile$setFileType(fileType)
```

Arguments:

`fileType` fileType object of class ISOMimeFileType or character

Method `setFileDescription()`**:** Set file description

Usage:

```
ISOQualityResultFile$setFileDescription(fileDescription, locales = NULL)
```

Arguments:

`fileDescription` fileDescription object of class character

`locales` list of localized file description. Default is `NULL`

Method `setFileFormat()`**:** Set file format

Usage:

```
ISOQualityResultFile$setFileFormat(fileFormat)
```

Arguments:

`fileFormat` fileFormat = object of class ISOFormat or character

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOQuantitativeAttributeAccuracy`
ISOQuantitativeAttributeAccuracy

Description

ISOQuantitativeAttributeAccuracy

ISOQuantitativeAttributeAccuracy

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISOQuantitativeAttributeAccuracy

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractQualityElement` -> `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.blondel1@gmail.com>

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

`resultScope` resultScope [0..1]: ISOScope (=> 19115-3)

`dateTime` dateTime [0..1]: POSIX/date (=> 19115-3)

`valueType` valueType [0..1]- ISORecordType

`valueUnit` valueUnit [1..1]- GMLUnitDefinition

`errorStatistic` errorStatistic [0..1]

`value` value [1..*]

Methods

Public methods:

- `ISOQuantitativeResult$new()`
- `ISOQuantitativeResult$setResultScope()`
- `ISOQuantitativeResult$setDateTime()`
- `ISOQuantitativeResult$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 `setResultScope()`**:** Set result scope

Usage:

```
ISOQuantitativeResult$setResultScope(scope)
```

Arguments:

`scope` object of class ISOScope

Method `setDateTime()`**:** Set date time

Usage:

```
ISOQuantitativeResult$setDateTime(dateTime)
```

Arguments:

`dateTime` date time, object of class POSIXct

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>

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 (=> ISO 19139)

description description (=> ISO 19115-3)

name name (=> ISO 19115-3)

Methods

Public methods:

- ISORangeDimension$new()
- ISORangeDimension$setSequenceIdentifier()
- ISORangeDimension$setDescriptor()
- ISORangeDimension$setDescription()
- ISORangeDimension$setName()
- ISORangeDimension$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 `setDescription()`**:** Set description

Usage:

```
ISORangeDimension$setDescription(description, locales = NULL)
```

Arguments:

`description` description

`locales` list of localized texts. Default is `NULL`

Method `setName()`**:** Set name

Usage:

```
ISORangeDimension$setName(name, locales = NULL)
```

Arguments:

`name` name

`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>

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>

References

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

---

`ISORecordType` *ISORecordType*

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>

`ISOReferenceIdentifier`

ISOReferenceIdentifier

Description

ISOReferenceIdentifier

ISOReferenceIdentifier

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO ReferenceIdentifier

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOReferenceIdentifier`

Public fields

`authority` authority [0..1]: ISOCitation

`code` code [1..1]: character

`codeSpace` codeSpace [0..1]: character

`version` version [0..1]: character

Methods

Public methods:

- `ISOReferenceIdentifier$new()`
- `ISOReferenceIdentifier$setAuthority()`
- `ISOReferenceIdentifier$setCode()`
- `ISOReferenceIdentifier$setCodeSpace()`
- `ISOReferenceIdentifier$setVersion()`
- `ISOReferenceIdentifier$clone()`

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

Usage:

```
ISOReferenceIdentifier$new(xml = NULL, code = NULL, codeSpace = NULL)
```

Arguments:
`xml` object of class XMLInternalNode-class
`code` code
`codeSpace` code space

Method `setAuthority()`**:** Set authority
Usage:
```
ISOReferenceIdentifier$setAuthority(authority)
```
Arguments:
`authority` object of class ISOCitation

Method `setCode()`**:** Set code
Usage:
```
ISOReferenceIdentifier$setCode(code)
```
Arguments:
`code` code

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 *ISOReferenceSystem*

Description

ISOReferenceSystem

ISOReferenceSystem

Format

R6Class object.

Value

Object of R6Class for modelling an ISO ReferenceSystem

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractReferenceSystem -> ISOReferenceSystem

Public fields

referenceSystemIdentifier referenceSystemIdentifier

referenceSystemType referenceSystemType (=> ISO 19115-3)

Methods

Public methods:

- ISOReferenceSystem$new()
- ISOReferenceSystem$setReferenceSystemIdentifier()
- ISOReferenceSystem$setReferenceSystemType()
- ISOReferenceSystem$clone()

Method new(): Initializes object

Usage:

```
ISOReferenceSystem$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setReferenceSystemIdentifier(): Set reference system identifier

Usage:

```
ISOReferenceSystem$setReferenceSystemIdentifier(identifier)
```

Arguments:

`identifier` object of class ISOReferenceIdentifier (in 19139) or ISOMetaIdentifier (in 19115-3)

Method `setReferenceSystemType()`**:** Set reference system type

Usage:

```
ISOReferenceSystem$setReferenceSystemType(referenceSystemType)
```

Arguments:

`referenceSystemType` object of class ISOReferenceSystemType or any character among values returned by `ISOReferenceSystemType$values()`

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>

Examples

```
md <- ISOReferenceSystem$new()
rsId <- ISOReferenceIdentifier$new(code = "4326", codeSpace = "EPSG")
md$setReferenceSystemIdentifier(rsId)
xml <- md$encode()
```

`ISOReferenceSystemType`

ISOReferenceSystemType

Description

ISOReferenceSystemType

ISOReferenceSystemType

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO ReferenceSystemType

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue -> ISOReferenceSystemType

Methods

Public methods:

- ISOReferenceSystemType$new()
- ISOReferenceSystemType$clone()

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

Usage:

```
ISOReferenceSystemType$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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
## Not run:
  setMetadataStandard("19115-3")
  #possible values
  values <- ISOReferenceSystemType$values(labels = TRUE)

  projected <- ISOReferenceSystemType$new(value = "projected")
  setMetadataStandard("19139")

## End(Not run)
```

ISOReleasability *ISOReleasability*

Description

ISOReleasability

ISOReleasability

Format

R6Class object.

Value

Object of R6Class for modelling an ISOReleasability

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOReleasability

Public fields

addressee addressee [0..*]: ISOAbstractResponsibility

statement statement [0..1]: character

disseminationConstraints disseminationConstraints [0..*]: ISORestriction

Methods

Public methods:

- ISOReleasability$new()
- ISOReleasability$addAddressee()
- ISOReleasability$delAddressee()
- ISOReleasability$setStatement()
- ISOReleasability$addConstraint()
- ISOReleasability$delConstraint()
- ISOReleasability$clone()

Method new(): Initializes object

Usage:

```
ISOReleasability$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method addAddressee(): Adds addressee

Usage:

```
ISOReleasability$addAddressee(addressee)
```

Arguments:

`addressee` addressee of class ISOAbstractResponsibility

Returns: `TRUE` if added, `FALSE` otherwise

Method `delAddressee()`**:** Deletes addressee

Usage:

```
ISOReleasability$delAddressee(addressee)
```

Arguments:

`addressee` addressee of class ISOAbstractResponsibility

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setStatement()`**:** Set statement

Usage:

```
ISOReleasability$setStatement(statement, locales = NULL)
```

Arguments:

`statement` statement

`locales` list of localized texts. Default is `NULL`

Method `addConstraint()`**:** Adds constraint

Usage:

```
ISOReleasability$addConstraint(constraint)
```

Arguments:

`constraint` constraint of class ISORestriction

Returns: `TRUE` if added, `FALSE` otherwise

Method `delConstraint()`**:** Deletes constraint

Usage:

```
ISOReleasability$delConstraint(constraint)
```

Arguments:

`constraint` constraint of class ISORestriction

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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>

Examples

```
fr <- ISORepresentativeFraction$new(denominator = 1L)
xml1 <- fr$encode()
fr$setDenominator(2L)
xml2 <- fr$encode()
```

`ISORepresentativity` *ISORepresentativity*

Description

ISORepresentativity

ISORepresentativity

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO representativity

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractQualityElement` -> `geometa::ISODataQualityAbstractElement` -> `geometa::ISOAbstractMetaquality` -> `ISORepresentativity`

Methods

Public methods:

- `ISORepresentativity$new()`
- `ISORepresentativity$clone()`

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

Usage:

```
ISORepresentativity$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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>

Examples

```
md <- ISOResolution$new()
md$setDistance(ISODistance$new(value = 1, uom = "m", useUomURI = TRUE))
xml <- md$encode()
```

ISOResponsibility *ISOResponsibility*

Description

ISOResponsibility

ISOResponsibility

Format

R6Class object.

Value

Object of R6Class for modelling an ISO responsibility

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractResponsibility -> ISOResponsibility

Public fields

role role

extent extent

party party

Methods

Public methods:

- ISOResponsibility$new()
- ISOResponsibility$setRole()
- ISOResponsibility$addExtent()
- ISOResponsibility$delExtent()
- ISOResponsibility$addParty()
- ISOResponsibility$delParty()
- ISOResponsibility$clone()

Method new(): Initializes object

Usage:

```
ISOResponsibility$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

Method setRole(): Set role

Usage:

```
ISOResponsibility$setRole(role)
```

Arguments:

`role` role object of class ISORole or any character among values returned by `ISORole$values()`

Method `addExtent()`**:** Adds extent

Usage:

```
ISOResponsibility$addExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delExtent()`**:** Deletes extent

Usage:

```
ISOResponsibility$delExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addParty()`**:** Adds party

Usage:

```
ISOResponsibility$addParty(party)
```

Arguments:

`party` party

Returns: `TRUE` if added, `FALSE` otherwise

Method `delParty()`**:** Deletes party

Usage:

```
ISOResponsibility$delParty(party)
```

Arguments:

`party` party

Returns: `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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$setVoice("myphonenumber")
phone$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)
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>

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>

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.blondel1@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")
```

`ISOSampleBasedInspection`

ISOSampleBasedInspection

Description

ISOSampleBasedInspection

ISOSampleBasedInspection

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO sample based inspection

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOEvaluationMethod` -> `ISOSampleBasedInspection`

Methods

Public methods:

- `ISOSampleBasedInspection$new()`
- `ISOSampleBasedInspection$clone()`

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

Usage:

```
ISOSampleBasedInspection$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOSampleDimension` *ISOSampleDimension*

Description

ISOSampleDimension

ISOSampleDimension

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISOSampleDimension

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISORangeDimension` -> `ISOSampleDimension`

Public fields

`maxValue` maxValue [0..1] : numeric

`minValue` minValue [0..1] : numeric

`units` units [0..1] : GMLUnitDefinition

`scaleFactor` scaleFactor [0..1] : numeric

`offset` offset [0..1] : numeric

`meanValue` meanValue [0..1] : numeric (=> ISO 19115-3)

`numberOfValues` numberOfValues [0..1] : integer (=> ISO 19115-3)

`standardDeviation` standardDeviation [0..1]: numeric (=> ISO 19115-3)

`otherPropertyType` otherPropertyType [0..1] : ISORecordType (=> ISO 19115-3)

`otherProperty` otherProperty [0..1] : ISORecord (=> ISO 19115-3)

`bitsPerValue` bitsPerValue [0..1] : integer (=> ISO 19115-3)

Methods

Public methods:

- ISOSampleDimension$new()
- ISOSampleDimension$setMaxValue()
- ISOSampleDimension$setMinValue()
- ISOSampleDimension$setUnits()
- ISOSampleDimension$setScaleFactor()
- ISOSampleDimension$setOffset()
- ISOSampleDimension$setMeanValue()
- ISOSampleDimension$setNumberOfValues()
- ISOSampleDimension$setStandardDeviation()
- ISOSampleDimension$setOtherPropertyType()
- ISOSampleDimension$setOtherProperty()
- ISOSampleDimension$setBitsPerValue()
- ISOSampleDimension$clone()

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

Usage:

```
ISOSampleDimension$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setMaxValue()`**:** Set max value

Usage:

```
ISOSampleDimension$setMaxValue(maxValue)
```

Arguments:

`maxValue` max value, object of class numeric

Method `setMinValue()`**:** Set min value

Usage:

```
ISOSampleDimension$setMinValue(minValue)
```

Arguments:

`minValue` min value, object of class numeric

Method `setUnits()`**:** Set unit definition

Usage:

```
ISOSampleDimension$setUnits(uom)
```

Arguments:

`uom` object of class GMLUnitDefinition

Method `setScaleFactor()`**:** Set scale factor

Usage:

```
ISOSampleDimension$setScaleFactor(scaleFactor)
```

Arguments:

`scaleFactor` object of class numeric

Method `setOffset()`: Set offset

Usage:

```
ISOSampleDimension$setOffset(offset)
```

Arguments:

`offset` object of class numeric

Method `setMeanValue()`: Set mean value

Usage:

```
ISOSampleDimension$setMeanValue(meanValue)
```

Arguments:

`meanValue` meanValue object of class numeric

Method `setNumberOfValues()`: Set number of values

Usage:

```
ISOSampleDimension$setNumberOfValues(numberOfValues)
```

Arguments:

`numberOfValues` numberOfValues object of class integer

Method `setStandardDeviation()`: Set standard deviation

Usage:

```
ISOSampleDimension$setStandardDeviation(standardDeviation)
```

Arguments:

`standardDeviation` standardDeviation object of class numeric$

Method `setOtherPropertyType()`: setOtherPropertyType

Usage:

```
ISOSampleDimension$setOtherPropertyType(otherPropertyType)
```

Arguments:

`otherPropertyType` otherPropertyType object of class ISORecordType

Method `setOtherProperty()`: setOtherProperty

Usage:

```
ISOSampleDimension$setOtherProperty(otherProperty)
```

Arguments:

`otherProperty` otherProperty object of class ISORecord

Method `setBitsPerValue()`: Set bits per value

Usage:

```
ISOSampleDimension$setBitsPerValue(bitsPerValue)
```

Arguments:

`bitsPerValue` bitsPerValue object of class integer

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
## Not run:
   setMetadataStandard("19115-3")
   #create band range dimension
   md <- ISOSampleDimension$new()
   md$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$setUnits(gml)
   md$setScaleFactor(1)
   md$setOffset(4)
   xml <- md$encode()
   setMetadataStandard("19139")

## End(Not run)
```

`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>

ISOScope *ISOScope*

Description

ISOScope

ISOScope

Format

R6Class object.

Value

Object of R6Class for modelling a scope

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOScope

Public fields

`level` level [0..1]: ISOScope

`extent` extent [0..*]: ISOAbstractExtent

`levelDescription` levelDescription [0..*]: ISOScopeDescription

Methods

Public methods:

- `ISOScope$new()`
- `ISOScope$setLevel()`
- `ISOScope$addExtent()`
- `ISOScope$delExtent()`
- `ISOScope$addLevelDescription()`
- `ISOScope$delLevelDescription()`
- `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` scope code, object of class ISOScopeCode or character among values listed by `ISOScopeCode$values()`

Method `addExtent()`**:** Adds extent

Usage:

```
ISOScope$addExtent(extent)
```

Arguments:

`extent` extent of class ISOAbstractExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delExtent()`**:** Deletes extent

Usage:

```
ISOScope$delExtent(extent)
```

Arguments:

`extent` extent of class ISOAbstractExtent

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addLevelDescription()`**:** Adds level description

Usage:

```
ISOScope$addLevelDescription(levelDescription)
```

Arguments:

`levelDescription` levelDescription of class ISOScopeDescription

Returns: `TRUE` if added, `FALSE` otherwise

Method `delLevelDescription()`**:** Deletes level description

Usage:

```
ISOScope$delLevelDescription(levelDescription)
```

Arguments:

`levelDescription` levelDescription of class ISOScopeDescription

Returns: `TRUE` if deleted, `FALSE` otherwise

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>

ISOScopeCode *ISOScopeCode*

Description

ISOScopeCode

ISOScopeCode

Format

R6Class object

Value

Object of R6Class for modelling an ISO Scope code

Object of R6Class for modelling an ISO Scope

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue -> ISOScopeCode

Methods

Public methods:

- ISOScopeCode$new()
- ISOScopeCode$clone()

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

Usage:

```
ISOScopeCode$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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
#possible values
values <- ISOScopeCode$values(labels = TRUE)

#dataset scope
ds <- ISOScopeCode$new(value = "dataset")
```

`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>

Examples

```
md <- ISOScopeDescription$new()
xml <- md$encode()
```

ISOScopedName *ISOScopedName*

Description

ISOScopedName

ISOScopedName

Format

R6Class object.

Value

Object of R6Class for modelling an ISO ScopedName

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::GMLCodeType -> geometa::ISOAbstractGene
-> 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>

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.blondel1@gmail.com>

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>

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`

Public fields

`name` name [0..1] : character

`issueIdentification` issueIdentification [0..1]: character

`page` page [0..1]: character

Methods

Public methods:

- `ISOSeries$new()`
- `ISOSeries$setName()`
- `ISOSeries$setIssueIdentification()`
- `ISOSeries$setPage()`
- `ISOSeries$clone()`

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

Usage:

```
ISOSeries$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setName()`**:** Set name

Usage:

```
ISOSeries$setName(name, locales = NULL)
```

Arguments:

`name` name

`locales` list of localized titles. Default is `NULL`

Method `setIssueIdentification()`**:** Set issue identification

Usage:

```
ISOSeries$setIssueIdentification(issueIdentification, locales = NULL)
```

Arguments:

`issueIdentification` issue identification

`locales` list of localized titles. Default is `NULL`

Method `setPage()`**:** Set page

Usage:

```
ISOSeries$setPage(page, locales = NULL)
```

Arguments:

`page` page

`locales` list of localized titles. Default is `NULL`

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>

`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://wwww.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()
```

ISOServiceIdentification19115_3

ISOServiceIdentification19115_3

Description

ISOServiceIdentification19115_3

ISOServiceIdentification19115_3

Format

R6Class object.

Value

Object of R6Class for modelling an ISO ServiceIdentification in ISO 19115-3

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOIdentification -> geometa::ISOIdentification19115_3 -> ISOServiceIdentification19115_3

Methods

Public methods:

- ISOServiceIdentification19115_3$new()
- ISOServiceIdentification19115_3$clone()

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

Usage:

```
ISOServiceIdentification19115_3$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

```
ISOServiceIdentification19115_3$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

`ISOServiceIdentification19139`

ISOServiceIdentification19139

Description

ISOServiceIdentification19139

ISOServiceIdentification19139

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO ServiceIdentification in ISO 19139

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOIdentification` -> `geometa::ISOIdentification19139` -> `ISOServiceIdentification19139`

Methods

Public methods:

- ISOServiceIdentification19139$new()
- ISOServiceIdentification19139$clone()

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

Usage:

```
ISOServiceIdentification19139$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

```
ISOServiceIdentification19139$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

`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]: ISOReferenceSystem

`sourceCitation` sourceCitation [0..1]: ISOCitation

`sourceExtent` sourceExtent [0..*]: ISOExtent

`sourceStep` sourceStep [0..*]: ISOProcessStep

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 ISORepresentativeFraction

Method `setReferenceSystem()`**:** Set reference system

Usage:

```
ISOSource$setReferenceSystem(referenceSystem)
```

Arguments:

`referenceSystem` object of class ISOReferenceSystem

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>

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` -> `geometa::ISOAbstractSpatialRepresentation` -> `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>

`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>

Examples

```
#possible values
values <- ISOSpatialRepresentationType$values(labels = TRUE)

#vector example
vectorRep <- ISOSpatialRepresentationType$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.blondel1@gmail.com>

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()
```

ISOSRVParameter *ISOSRVParameter*

Description

ISOSRVParameter

ISOSRVParameter

Format

R6Class object.

Value

Object of R6Class for modelling an ISOSRVParameter

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> ISOSRVParameter

Public fields

`name` name [1..1]: character

`direction` direction [0..1]: ISOParameterDirection or character

`description` description [0..1]: character

`optionality` optionality [1..1]: character

`repeatability` repeatability [1..1]: logical

`valueType` valueType [1..1]: ISOTypeName (=> ISO 19139)

Methods

Public methods:

- ISOSRVParameter$new()
- ISOSRVParameter$setName()
- ISOSRVParameter$setDirection()
- ISOSRVParameter$setDescription()
- ISOSRVParameter$setOptionality()
- ISOSRVParameter$setRepeatability()
- ISOSRVParameter$setValueType()
- ISOSRVParameter$clone()

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

Usage:

```
ISOSRVParameter$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setName()`**:** Set name

Usage:

```
ISOSRVParameter$setName(name, attributeType, locales = NULL)
```

Arguments:

`name` name

`attributeType` attribute type

`locales` list of localized texts. Default is `NULL`

Method `setDirection()`**:** Set direction

Usage:

```
ISOSRVParameter$setDirection(direction)
```

Arguments:

`direction` object of class ISOSRVParameterDirection or character among values returned by `ISOSRVParameterDirection$values()`

Method `setDescription()`**:** Set description

Usage:

```
ISOSRVParameter$setDescription(description, locales = NULL)
```

Arguments:

`description` description

`locales` list of localized texts. Default is `NULL`

Method `setOptionality()`**:** Set optionality

Usage:

```
ISOSRVParameter$setOptionality(optional)
```

Arguments:

`optional` object of class logical

Method `setRepeatability()`**:** Set repeatability

Usage:

```
ISOSRVParameter$setRepeatability(repeatable)
```

Arguments:

`repeatable` object of class logical

Method `setValueType()`**:** Set value type

Usage:

```
ISOSRVParameter$setValueType(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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
md <- ISOSRVParameter$new()
md$setName("name", "attType")
md$setDirection("in")
md$setDescription("description")
md$setOptionality(FALSE)
md$setRepeatability(FALSE)
md$setValueType("CharacterString")
xml <- md$encode()
```

ISOSRVParameterDirection *ISOSRVParameterDirection*

Description

ISOSRVParameterDirection

ISOSRVParameterDirection

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISOSRVParameterDirection

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOCodeListValue` -> `ISOSRVParameterDirection`

Methods

Public methods:

- `ISOSRVParameterDirection$new()`
- `ISOSRVParameterDirection$clone()`

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

Usage:

```
ISOSRVParameterDirection$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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
#possible values
values <- ISOSRVParameterDirection$values(labels = TRUE)

#paramDir
paramDir <- ISOSRVParameterDirection$new(value = "in")
```

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>

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("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$new(
  fileName = "http://wwww.somefile.org/png",
  fileDescription = "Map Overview",
  fileType = "image/png"
)
md$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$setInvocationName("identifier")
for(i in 1:3){
  param <- ISOSRVParameter$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$addParameter(param)
}
outParam <-ISOSRVParameter$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$setInvocationName(invocationName)
for(i in 1:3){
  param <- ISOSRVParameter$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$addParameter(param)
}
outParam <-ISOSRVParameter$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()
```

ISOSRVServiceIdentification19115_3
ISOSRVServiceIdentification19115_3

Description

ISOSRVServiceIdentification19115_3

ISOSRVServiceIdentification19115_3

Format

R6Class object.

Value

Object of R6Class for modelling an ISO SRV ServiceIdentification in ISO 19115-3

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOIdentification -> geometa::ISOIdentification19115_3 -> geometa::ISOServiceIdentification19115_3 -> ISOSRVServiceIdentification19115_3

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:

- ISOSRVServiceIdentification19115_3$new()
- ISOSRVServiceIdentification19115_3$setServiceType()
- ISOSRVServiceIdentification19115_3$addServiceTypeVersion()
- ISOSRVServiceIdentification19115_3$delServiceTypeVersion()

- ISOSRVServiceIdentification19115_3$setAccessProperties()
- ISOSRVServiceIdentification19115_3$setRestrictions()
- ISOSRVServiceIdentification19115_3$addKeywords()
- ISOSRVServiceIdentification19115_3$delKeywords()
- ISOSRVServiceIdentification19115_3$addExtent()
- ISOSRVServiceIdentification19115_3$delExtent()
- ISOSRVServiceIdentification19115_3$addCoupledResource()
- ISOSRVServiceIdentification19115_3$delCoupledResource()
- ISOSRVServiceIdentification19115_3$setCouplingType()
- ISOSRVServiceIdentification19115_3$addOperationMetadata()
- ISOSRVServiceIdentification19115_3$delOperationMetadata()
- ISOSRVServiceIdentification19115_3$addOperatesOn()
- ISOSRVServiceIdentification19115_3$delOperatesOn()
- ISOSRVServiceIdentification19115_3$clone()

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

Usage:

```
ISOSRVServiceIdentification19115_3$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setServiceType()`**:** Set service type

Usage:

```
ISOSRVServiceIdentification19115_3$setServiceType(serviceType)
```

Arguments:

`serviceType` object of class ISOLocalName, ISOScopedName or character

Method `addServiceTypeVersion()`**:** Adds service type version

Usage:

```
ISOSRVServiceIdentification19115_3$addServiceTypeVersion(version)
```

Arguments:

`version` version

Returns: `TRUE` if added, `FALSE` otherwise

Method `delServiceTypeVersion()`**:** Deletes service type version

Usage:

```
ISOSRVServiceIdentification19115_3$delServiceTypeVersion(version)
```

Arguments:

`version` version

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setAccessProperties()`**:** Set access properties

Usage:

```
ISOSRVServiceIdentification19115_3$setAccessProperties(accessProperties)
```

Arguments:

`accessProperties` object of class ISOStandardOrderProcess

Method `setRestrictions()`**:** Set restrictions

Usage:

```
ISOSRVServiceIdentification19115_3$setRestrictions(restrictions)
```

Arguments:

`restrictions` object of class ISOConstraints

Method `addKeywords()`**:** Adds keywords

Usage:

```
ISOSRVServiceIdentification19115_3$addKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if added, `FALSE` otherwise

Method `delKeywords()`**:** Deletes keywords

Usage:

```
ISOSRVServiceIdentification19115_3$delKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addExtent()`**:** Adds extent

Usage:

```
ISOSRVServiceIdentification19115_3$addExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delExtent()`**:** Deletes extent

Usage:

```
ISOSRVServiceIdentification19115_3$delExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addCoupledResource()`**:** Adds coupled resource

Usage:

```
ISOSRVServiceIdentification19115_3$addCoupledResource(resource)
```

Arguments:

`resource` object of class ISOCoupledResource

Returns: `TRUE` if added, `FALSE` otherwise

Method `delCoupledResource()`**:** Deletes coupled resource

Usage:

```
ISOSRVServiceIdentification19115_3$delCoupledResource(resource)
```

Arguments:

`resource` object of class ISOCoupledResource

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setCouplingType()`**:** Set coupling type

Usage:

```
ISOSRVServiceIdentification19115_3$setCouplingType(couplingType)
```

Arguments:

`couplingType` object of class ISOCouplingType or any character among values returned by `ISOCouplingType$values()`

Method `addOperationMetadata()`**:** Adds operation metadata

Usage:

```
ISOSRVServiceIdentification19115_3$addOperationMetadata(operationMetadata)
```

Arguments:

`operationMetadata` object of class ISOOperationMetadata

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOperationMetadata()`**:** Deletes operation metadata

Usage:

```
ISOSRVServiceIdentification19115_3$delOperationMetadata(operationMetadata)
```

Arguments:

`operationMetadata` object of class ISOOperationMetadata

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addOperatesOn()`**:** Adds operates on

Usage:

```
ISOSRVServiceIdentification19115_3$addOperatesOn(dataIdentification)
```

Arguments:

`dataIdentification` object of class ISODataIdentification

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOperatesOn()`**:** Deletes operates on

Usage:

```
ISOSRVServiceIdentification19115_3$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:

```
ISOSRVServiceIdentification19115_3$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

`ISOSRVServiceIdentification19139`

ISOSRVServiceIdentification19139

Description

ISOSRVServiceIdentification19139

ISOSRVServiceIdentification19139

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO SRV ServiceIdentification in ISO 19139

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOIdentification` -> `geometa::ISOIdentification19139` -> `geometa::ISOServiceIdentification19139` -> `ISOSRVServiceIdentifica`

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:

- ISOSRVServiceIdentification19139$new()
- ISOSRVServiceIdentification19139$setServiceType()
- ISOSRVServiceIdentification19139$addServiceTypeVersion()
- ISOSRVServiceIdentification19139$delServiceTypeVersion()
- ISOSRVServiceIdentification19139$setAccessProperties()
- ISOSRVServiceIdentification19139$setRestrictions()
- ISOSRVServiceIdentification19139$addKeywords()
- ISOSRVServiceIdentification19139$delKeywords()
- ISOSRVServiceIdentification19139$addExtent()
- ISOSRVServiceIdentification19139$delExtent()
- ISOSRVServiceIdentification19139$addCoupledResource()
- ISOSRVServiceIdentification19139$delCoupledResource()
- ISOSRVServiceIdentification19139$setCouplingType()
- ISOSRVServiceIdentification19139$addOperationMetadata()
- ISOSRVServiceIdentification19139$delOperationMetadata()
- ISOSRVServiceIdentification19139$addOperatesOn()
- ISOSRVServiceIdentification19139$delOperatesOn()
- ISOSRVServiceIdentification19139$clone()

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

Usage:

```
ISOSRVServiceIdentification19139$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setServiceType()`**:** Set service type

Usage:

```
ISOSRVServiceIdentification19139$setServiceType(serviceType)
```

Arguments:

`serviceType` object of class ISOLocalName, ISOScopedName or character

Method `addServiceTypeVersion()`**:** Adds service type version

Usage:

```
ISOSRVServiceIdentification19139$addServiceTypeVersion(version)
```

Arguments:

`version` version

Returns: `TRUE` if added, `FALSE` otherwise

Method `delServiceTypeVersion()`**:** Deletes service type version

Usage:

```
ISOSRVServiceIdentification19139$delServiceTypeVersion(version)
```

Arguments:

`version` version

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setAccessProperties()`**:** Set access properties

Usage:

```
ISOSRVServiceIdentification19139$setAccessProperties(accessProperties)
```

Arguments:

`accessProperties` object of class ISOStandardOrderProcess

Method `setRestrictions()`**:** Set restrictions

Usage:

```
ISOSRVServiceIdentification19139$setRestrictions(restrictions)
```

Arguments:

`restrictions` object of class ISOConstraints

Method `addKeywords()`**:** Adds keywords

Usage:

```
ISOSRVServiceIdentification19139$addKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if added, `FALSE` otherwise

Method `delKeywords()`**:** Deletes keywords

Usage:

```
ISOSRVServiceIdentification19139$delKeywords(keywords)
```

Arguments:

`keywords` object of class ISOKeywords

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addExtent()`**:** Adds extent

Usage:

```
ISOSRVServiceIdentification19139$addExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if added, `FALSE` otherwise

Method `delExtent()`**:** Deletes extent

Usage:

```
ISOSRVServiceIdentification19139$delExtent(extent)
```

Arguments:

`extent` object of class ISOExtent

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addCoupledResource()`**:** Adds coupled resource

Usage:

```
ISOSRVServiceIdentification19139$addCoupledResource(resource)
```

Arguments:

`resource` object of class ISOCoupledResource

Returns: `TRUE` if added, `FALSE` otherwise

Method `delCoupledResource()`**:** Deletes coupled resource

Usage:

```
ISOSRVServiceIdentification19139$delCoupledResource(resource)
```

Arguments:

`resource` object of class ISOCoupledResource

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `setCouplingType()`**:** Set coupling type

Usage:

```
ISOSRVServiceIdentification19139$setCouplingType(couplingType)
```

Arguments:

`couplingType` object of class ISOCouplingType or any character among values returned by `ISOCouplingType$values()`

Method `addOperationMetadata()`**:** Adds operation metadata

Usage:

```
ISOSRVServiceIdentification19139$addOperationMetadata(operationMetadata)
```

Arguments:

`operationMetadata` object of class ISOOperationMetadata

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOperationMetadata()`**:** Deletes operation metadata

Usage:

```
ISOSRVServiceIdentification19139$delOperationMetadata(operationMetadata)
```

Arguments:

`operationMetadata` object of class ISOOperationMetadata

Returns: `TRUE` if deleted, `FALSE` otherwise

Method `addOperatesOn()`**:** Adds operates on

Usage:

```
ISOSRVServiceIdentification19139$addOperatesOn(dataIdentification)
```

Arguments:

`dataIdentification` object of class ISODataIdentification

Returns: `TRUE` if added, `FALSE` otherwise

Method `delOperatesOn()`**:** Deletes operates on

Usage:

```
ISOSRVServiceIdentification19139$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:

```
ISOSRVServiceIdentification19139$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

`ISOStandaloneQualityReportInformation`
ISOStandaloneQualityReportInformation

Description

ISOStandaloneQualityReportInformation

ISOStandaloneQualityReportInformation

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO standalone quality report information

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOStandaloneQualityReportInformation`

Public fields

`reportReference` reportReference [1]: ISOCitation

`abstract` abstract [1]: character

`elementReport` elementReport [0..*]: ISODataQualityAbstractElement

Methods

Public methods:

- ISOStandaloneQualityReportInformation$new()
- ISOStandaloneQualityReportInformation$setReportReference()
- ISOStandaloneQualityReportInformation$setAbstract()
- ISOStandaloneQualityReportInformation$addElementReport()
- ISOStandaloneQualityReportInformation$delElementReport()
- ISOStandaloneQualityReportInformation$clone()

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

Usage:

```
ISOStandaloneQualityReportInformation$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

Method `setReportReference()`**:** set Report reference

Usage:

```
ISOStandaloneQualityReportInformation$setReportReference(reportReference)
```

Arguments:

`reportReference` object of class ISOCitation

Method `setAbstract()`**:** Set abstract

Usage:

```
ISOStandaloneQualityReportInformation$setAbstract(abstract, locales = NULL)
```

Arguments:

`abstract` abstract

`locales` list of localized abstract Default is `NULL`

Method `addElementReport()`**:** Adds element report

Usage:

```
ISOStandaloneQualityReportInformation$addElementReport(elementReport)
```

Arguments:

`elementReport` object of class ISODataQualityAbstractElement '@return `TRUE` if added, `FALSE` otherwise

Method `delElementReport()`**:** Deletes element report

Usage:

```
ISOStandaloneQualityReportInformation$delElementReport(elementReport)
```

Arguments:

`elementReport` object of class ISODataQualityAbstractElement '@return `TRUE` if deleted, `FALSE` otherwise

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`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

`orderOptionsType` orderOptionsType [0..1]: ISORecordType (=> ISO 19115-3)

`orderOptions` orderOptions [0..1]: ISORecord (=> ISO 19115-3)

Methods

Public methods:

- `ISOStandardOrderProcess$new()`
- `ISOStandardOrderProcess$setFees()`
- `ISOStandardOrderProcess$setPlannedAvailableDateTime()`
- `ISOStandardOrderProcess$setOrderingInstructions()`
- `ISOStandardOrderProcess$setTurnaround()`
- `ISOStandardOrderProcess$setOrderOptionsType()`
- `ISOStandardOrderProcess$setOrderOptions()`
- `ISOStandardOrderProcess$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 `setOrderOptionsType()`**:** Set order options type

Usage:

```
ISOStandardOrderProcess$setOrderOptionsType(orderOptionsType)
```

Arguments:

`orderOptionsType` orderOptionsType object of class ISORecordType or character

Method `setOrderOptions()`**:** Set order options

Usage:

```
ISOStandardOrderProcess$setOrderOptions(orderOptions)
```

Arguments:

`orderOptions` orderOptions object of class ISORecord or character

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>

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` -> `geometa::ISOProgress` -> `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.

Note

deprecated - use ISOProgress instead

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

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>

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

number number

numberType numberType

Methods

Public methods:

- ISOTelephone$new()
- ISOTelephone$setVoice()
- ISOTelephone$setFacsimile()
- ISOTelephone$setNumber()
- ISOTelephone$setNumberType()
- ISOTelephone$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 `setNumber()`**:** Set number

Usage:

```
ISOTelephone$setNumber(number, locales = NULL)
```

Arguments:

`number` number

`locales` list of localized numbers Default is `NULL`

Method `setNumberType()`**:** Set numberType

Usage:

```
ISOTelephone$setNumberType(numberType)
```

Arguments:

`numberType` numberType object of class ISOTelephoneType or any character among values returned by `ISOTelephoneType$values()`

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>

Examples

```
md <- ISOTelephone$new()
md$setVoice("myphonenumber")
md$setFacsimile("myfacsimile")
xml <- md$encode()
```

ISOTelephoneType *ISOTelephoneType*

Description

ISOTelephoneType

ISOTelephoneType

Format

R6Class object.

Value

Object of R6Class for modelling an ISO TelephoneType

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOCodeListValue -> ISOTelephoneType

Methods

Public methods:

- ISOTelephoneType$new()
- ISOTelephoneType$clone()

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

Usage:

```
ISOTelephoneType$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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

Examples

```
## Not run:
  setMetadataStandard("19115-3")
  #possible values
  values <- ISOTelephoneType$values(labels = TRUE)

  voice <- ISOTelephoneType$new(value = "voice")
  setMetadataStandard("19139")

## End(Not run)
```

`ISOTemporalConsistency` *ISOTemporalConsistency*

Description

ISOTemporalConsistency

ISOTemporalConsistency

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISOTemporalConsistency

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `geometa::ISOAbstractQualityElement` -> `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.blondel1@gmail.com>

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.blondel1@gmail.com>

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::ISOAbstractQualityElement -> 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>

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::ISOAbstractQualityElement` -> `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>

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>

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::ISOAbstractQualityElement -> 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.blondel1@gmail.com>

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 *ISOTopologyLevel*

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>

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>

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)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOUomIdentifier` *ISOUomIdentifier*

Description

ISOUomIdentifier

ISOUomIdentifier

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO Uom Identifier

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOUomIdentifier`

Public fields

`value` value

Methods

Public methods:

- `ISOUomIdentifier$new()`
- `ISOUomIdentifier$clone()`

Method `new()`**:** Initializes a Uom identifier

Usage:

```
ISOUomIdentifier$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:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

`ISOURI` *ISOURI*

Description

ISOURI

ISOURI

Format

`R6Class` object.

Value

Object of `R6Class` for modelling an ISO URI

Super classes

`geometa::geometaLogger` -> `geometa::ISOAbstractObject` -> `ISOURI`

Methods

Public methods:

- ISOURI$new()
- ISOURI$clone()

Method new(): Initializes object

Usage:

```
ISOURI$new(xml = NULL)
```

Arguments:

xml object of class XMLInternalNode-class

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

Usage:

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

Arguments:

deep Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOURL *ISOURL*

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

ISOUsabilityElement *ISOUsabilityElement*

Description

ISOUsabilityElement

ISOUsabilityElement

Format

R6Class object.

Value

Object of R6Class for modelling an ISOUsabilityElement

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractQualityElement -> geometa::ISODataQualityAbstractElement -> ISOUsabilityElement

Methods

Public methods:

- ISOUsabilityElement$new()
- ISOUsabilityElement$clone()

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

Usage:

```
ISOUsabilityElement$new(xml = NULL)
```

Arguments:

`xml` object of class XMLInternalNode-class

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

Usage:

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

Arguments:

`deep` Whether to make a deep clone.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

ISOUsage *ISOUsage*

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 (in ISO 19139) or ISOAbstractResponsibility (in ISO 19115-3)

Returns: `TRUE` if added, `FALSE` otherwise

Method `delUserContact()`**:** Deletes user contact

Usage:

```
ISOUsage$delUserContact(contact)
```

Arguments:

`contact` object of class ISOResponsibleParty (in ISO 19139) or ISOAbstractResponsibility (in ISO 19115-3)

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.blondel1@gmail.com>

ISOVectorSpatialRepresentation
ISOVectorSpatialRepresentation

Description

ISOVectorSpatialRepresentation

ISOVectorSpatialRepresentation

Format

R6Class object.

Value

Object of R6Class for modelling an ISO VectorSpatialRepresentation

Super classes

geometa::geometaLogger -> geometa::ISOAbstractObject -> geometa::ISOAbstractSpatialRepresentation -> 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>

Examples

```
md <- ISOVectorSpatialRepresentation$new()
md$setTopologyLevel("geometryOnly")
geomObject1 <- ISOGeometricObjects$new()
geomObject1$setGeometricObjectType("surface")
geomObject1$setGeometricObjectCount(5L)
md$addGeometricObjects(geomObject1)
xml <- md$encode()
```

ISOVerticalExtent *ISOVerticalExtent*

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>

Examples

```
ve <- ISOVerticalExtent$new()
ve$setMinimumValue(0)
ve$setMaximumValue(19)
xml <- ve$encode()
```

parseISOCodelists *parseISOCodelists*

Description

`parseISOCodelists` allows to parse the list of ISO codelists registered in **geometa**

Usage

```
parseISOCodelists(version)
```

Arguments

`version`	the version of the metadata standard

Value

a `list` of ISOCodelist objects

Note

Internal method used to parse ISO codelists for package build

Author(s)

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

pivot_converter *pivot_converter*

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.blondel1@gmail.com>

`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.blondel1@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"
)
```

readISO *readISO*

Description

readISO is a function to read a ISO metadata from a file or url into an object in the **geometa** model.

Usage

```
readISO(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 **geometa** 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 <- readISO(mdfile)
```

readISO19139 *readISO19139*

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 **geometa** 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 *registerISOCodelist*

Description

registerISOCodelist allows to register a new codelist registered in **geometa**

Usage

```
registerISOCodelist(refFile, id, version, force)
```

Arguments

refFile	ISO XML file handling the ISO codelist
id	identifier of the ISO codelist
version	the version of the metadata standard
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",
 version = "19139",
 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(version, xsdFile)
```

Arguments

version	the schema version
xsdFile	the schema XSD file

Author(s)

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

Examples

```
registerISOMetadataSchema(version = "19139", 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>

registerMappings *registerMappings*

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

setGeometaOption *setGeometaOption*

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")
```

setIANAMimeTypes *setIANAMimeTypes*

Description

setIANAMimeTypes

Usage

```
setIANAMimeTypes()
```

setISOCodelists *setISOCodelists*

Description

`setISOCodelists` allows to set the list of ISO codelists registered in **geometa**

Usage

```
setISOCodelists(version)
```

Arguments

`version`	the version of the metadata standard

Author(s)

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

Examples

```
setISOCodelists(version = "19139")
```

setISOMetadataNamespaces *setISOMetadataNamespaces*

Description

setISOMetadataNamespaces sets the default list of namespaces

Usage

```
setISOMetadataNamespaces(version)
```

Arguments

version	the standard version

Author(s)

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

Examples

```
getISOMetadataNamespaces()
```

setISOMetadataSchemas *setISOMetadataSchemas*

Description

setISOMetadataSchemas register the schemas in **geometa**

Usage

```
setISOMetadataSchemas(version)
```

Arguments

version	the schema version

Examples

```
setISOMetadataSchemas(version = "19139")
```

setMappingFormats *setMappingFormats*

Description

setMappingFormats

Usage

```
setMappingFormats()
```

setMetadataStandard *setMetadataStandard*

Description

setMetadataStandard allows to set the standard to use for encoding/decoding in **geometa**. By default the standard "19139" will be used. Possible alternative value "19115-3"

Usage

```
setMetadataStandard(version)
```

Arguments

version	the standard version

Author(s)

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

Examples

```
setMetadataStandard(version = "19139")
```

SWEAbstractDataComponent

SWEAbstractDataComponent

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

SWEAbstractEncoding *SWEAbstractEncoding*

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>

References

SWE Common Data Model Encoding Standard. https://www.ogc.org/standards/swecommon

SWEAbstractObject *SWEAbstractObject*

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>

SWEAbstractSimpleComponent

SWEAbstractSimpleComponent

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.blondel1@gmail.com>

References

SWE Common Data Model Encoding Standard. https://www.ogc.org/standards/swecommon

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>

`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

---

`SWECategory` *SWECategory*

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

SWEDataRecord *SWEDataRecord*

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 <emmanuel.blondel1@gmail.com>

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` *SWETextEncoding*

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.blondel1@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 <emmanuel.blondel1@gmail.com>

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.

Author(s)

Emmanuel Blondel <emmanuel.blondel1@gmail.com>

References

SWE Common Data Model Encoding Standard. https://www.ogc.org/standards/swecommon

Index

* **Abstract**
  GMLAbstractGeneralParameterValue, 39
* **AcquisitionInformation**
  ISOImageryAcquisitionInformation, 442
* **Aggregate**
  GMLAbstractGeometricAggregate, 40
* **Binding**
  ISOBinding, 250
* **BoundAssociationRole**
  ISOBoundAssociationRole, 251
* **BoundFeatureAttribute**
  ISOBoundFeatureAttribute, 252
* **CRS**
  GMLAbstractCRS, 30
  GMLCompoundCRS, 63
* **Classification**
  ISOClassification, 268
* **CoupledResource**
  ISOCoupledResource, 295
* **CoverageContentType**
  ISOCoverageContentType, 298
* **Coverage**
  GMLCOVAbstractCoverage, 71
  GMLCOVExtension, 72
* **Curve**
  GMLAbstractCurve, 31
* **DCP**
  ISODCPList, 331
* **Datatype**
  ISODatatype, 327
* **DimensionNameType**
  ISODimensionNameType, 341
* **EnvelopeWithTimePeriod**
  GMLEnvelopeWithTimePeriod, 84
* **Envelope**
  GMLEnvelope, 82
  GMLGridEnvelope, 94
* **EvaluationMethodType**
  ISOEvaluationMethodType, 356
* **GMLCOV**
  GMLCOVAbstractCoverage, 71
  GMLCOVExtension, 72
* **GML**
  GMLAbstractCoordinateOperation, 24
  GMLAbstractCoordinateSystem, 26
  GMLAbstractCoverage, 28
  GMLAbstractCRS, 30
  GMLAbstractCurve, 31
  GMLAbstractDiscreteCoverage, 32
  GMLAbstractFeature, 34
  GMLAbstractGeneralConversion, 35
  GMLAbstractGeneralDerivedCRS, 37
  GMLAbstractGeneralOperationParameter, 38
  GMLAbstractGeneralParameterValue, 39
  GMLAbstractGeometricAggregate, 40
  GMLAbstractGeometricPrimitive, 41
  GMLAbstractGeometry, 42
  GMLAbstractGML, 44
  GMLAbstractImplicitGeometry, 46
  GMLAbstractObject, 48
  GMLAbstractReferenceableGrid, 49
  GMLAbstractRing, 50
  GMLAbstractSingleCRS, 51
  GMLAbstractSingleOperation, 52
  GMLAbstractSurface, 53
  GMLAbstractTimeObject, 55
  GMLAbstractTimePrimitive, 56
  GMLAffineCS, 58
  GMLBaseUnit, 59
  GMLCartesianCS, 61
  GMLCodeType, 62
  GMLCompoundCRS, 63
  GMLConventionalUnit, 65
  GMLConversion, 67

GMLCoordinateSystemAxis, 69
GMLCOVAbstractCoverage, 71
GMLCOVExtension, 72
GMLCylindricalCS, 74
GMLDefinition, 75
GMLDerivedCRS, 76
GMLDerivedUnit, 78
GMLElement, 80
GMLEllipsoidalCS, 81
GMLEnvelope, 82
GMLEnvelopeWithTimePeriod, 84
GMLGeneralGridAxis, 86
GMLGeodeticCRS, 88
GMLGrid, 90
GMLGridCoverage, 92
GMLGridEnvelope, 94
GMLGridFunction, 95
GMLLinearCS, 97
GMLLinearRing, 98
GMLLineString, 99
GMLMultiCurve, 100
GMLMultiCurveCoverage, 102
GMLMultiPoint, 103
GMLMultiPointCoverage, 105
GMLMultiSolidCoverage, 106
GMLMultiSurface, 108
GMLMultiSurfaceCoverage, 109
GMLObliqueCartesianCS, 111
GMLOperationMethod, 112
GMLOperationParameter, 114
GMLOperationParameterGroup, 115
GMLParameterValue, 116
GMLParameterValueGroup, 119
GMLPoint, 121
GMLPolarCS, 122
GMLPolygon, 123
GMLProjectedCRS, 124
GMLRectifiedGrid, 126
GMLRectifiedGridCoverage, 128
GMLReferenceableGridByArray, 129
GMLReferenceableGridByTransformation, 131
GMLReferenceableGridByVectors, 132
GMLSphericalCS, 134
GMLTemporalCRS, 135
GMLTemporalCS, 136
GMLTimeCS, 137
GMLUnitDefinition, 142
GMLUserDefinedCS, 144
GMLVerticalCRS, 145
GMLVerticalCS, 146
SWEAbstractObject, 775
SWEAbstractSWE, 778
SWEElement, 790

∗ **GeneralGridAxis**
GMLGeneralGridAxis, 86

∗ **GeneralParameterValue**
GMLAbstractGeneralParameterValue, 39

∗ **Geometric**
GMLAbstractGeometricAggregate, 40
GMLAbstractGeometricPrimitive, 41
GMLAbstractRing, 50

∗ **Geometry**
GMLAbstractGeometry, 42
GMLAbstractImplicitGeometry, 46

∗ **Georeferenceable**
ISOImageryGeoreferenceable, 470

∗ **GridFunction**
GMLGridFunction, 95

∗ **Grid**
GMLAbstractReferenceableGrid, 49
GMLGrid, 90
GMLGridEnvelope, 94
GMLRectifiedGrid, 126
GMLReferenceableGridByArray, 129
GMLReferenceableGridByTransformation, 131
GMLReferenceableGridByVectors, 132

∗ **INSPIRE**
INSPIREMetadataValidator, 147

∗ **ISO**
GMLAbstractCoordinateOperation, 24
GMLAbstractCoordinateSystem, 26
GMLAbstractCoverage, 28
GMLAbstractCRS, 30
GMLAbstractCurve, 31
GMLAbstractDiscreteCoverage, 32
GMLAbstractFeature, 34
GMLAbstractGeneralConversion, 35
GMLAbstractGeneralDerivedCRS, 37
GMLAbstractGeneralOperationParameter, 38
GMLAbstractGeneralParameterValue, 39
GMLAbstractGeometricAggregate, 40

GMLAbstractGeometricPrimitive, 41
GMLAbstractGeometry, 42
GMLAbstractGML, 44
GMLAbstractImplicitGeometry, 46
GMLAbstractObject, 48
GMLAbstractReferenceableGrid, 49
GMLAbstractRing, 50
GMLAbstractSingleCRS, 51
GMLAbstractSingleOperation, 52
GMLAbstractSurface, 53
GMLAbstractTimeGeometricPrimitive, 54
GMLAbstractTimeObject, 55
GMLAbstractTimePrimitive, 56
GMLAffineCS, 58
GMLBaseUnit, 59
GMLCartesianCS, 61
GMLCompoundCRS, 63
GMLConventionalUnit, 65
GMLConversion, 67
GMLCoordinateSystemAxis, 69
GMLCylindricalCS, 74
GMLDefinition, 75
GMLDerivedCRS, 76
GMLDerivedUnit, 78
GMLElement, 80
GMLEllipsoidalCS, 81
GMLEnvelope, 82
GMLEnvelopeWithTimePeriod, 84
GMLGeodeticCRS, 88
GMLGrid, 90
GMLGridCoverage, 92
GMLGridEnvelope, 94
GMLGridFunction, 95
GMLLinearCS, 97
GMLLinearRing, 98
GMLLineString, 99
GMLMultiCurve, 100
GMLMultiCurveCoverage, 102
GMLMultiPoint, 103
GMLMultiPointCoverage, 105
GMLMultiSolidCoverage, 106
GMLMultiSurface, 108
GMLMultiSurfaceCoverage, 109
GMLObliqueCartesianCS, 111
GMLOperationMethod, 112
GMLOperationParameter, 114
GMLOperationParameterGroup, 115
GMLParameterValue, 116
GMLParameterValueGroup, 119
GMLPoint, 121
GMLPolarCS, 122
GMLPolygon, 123
GMLProjectedCRS, 124
GMLRectifiedGrid, 126
GMLRectifiedGridCoverage, 128
GMLReferenceableGridByArray, 129
GMLReferenceableGridByTransformation, 131
GMLReferenceableGridByVectors, 132
GMLSphericalCS, 134
GMLTemporalCRS, 135
GMLTemporalCS, 136
GMLTimeCS, 137
GMLTimeInstant, 138
GMLTimePeriod, 140
GMLUnitDefinition, 142
GMLUserDefinedCS, 144
GMLVerticalCRS, 145
GMLVerticalCS, 146
ISOAbsoluteExternalPositionalAccuracy, 150
ISOAbstractAcquisitionInformation, 151
ISOAbstractAggregate, 152
ISOAbstractApplicationSchemaInformation, 155
ISOAbstractCarrierOfCharacteristics, 156
ISOAbstractCatalogue, 158
ISOAbstractCitation, 161
ISOAbstractCompleteness, 162
ISOAbstractConstraints, 163
ISOAbstractContentInformation, 164
ISOAbstractDataEvaluation, 165
ISOAbstractDataQuality, 168
ISOAbstractDistribution, 169
ISOAbstractExtent, 170
ISOAbstractFeatureCatalogue, 171
ISOAbstractFeatureType, 172
ISOAbstractFormat, 173
ISOAbstractGenericName, 174
ISOAbstractLineageInformation, 175
ISOAbstractLogicalConsistency, 176
ISOAbstractMaintenanceInformation, 177

ISOAbstractMDContentInformation, 178
ISOAbstractMetadata, 179
ISOAbstractMetadataExtension, 180
ISOAbstractMetaquality, 181
ISOAbstractObject, 182
ISOAbstractOnlineResource, 190
ISOAbstractParameter, 191
ISOAbstractParty, 194
ISOAbstractPlatform, 196
ISOAbstractPortrayalCatalogueInformation, 197
ISOAbstractPositionalAccuracy, 198
ISOAbstractPropertyType, 199
ISOAbstractQualityElement, 201
ISOAbstractReferenceSystem, 203
ISOAbstractResourceDescription, 204
ISOAbstractResponsibility, 205
ISOAbstractResult, 206
ISOAbstractRSReferenceSystem, 207
ISOAbstractSpatialRepresentation, 209
ISOAbstractSpatialResolution, 210
ISOAbstractStandardOrderProcess, 211
ISOAbstractTemporalAccuracy, 212
ISOAbstractTemporalQuality, 213
ISOAbstractThematicAccuracy, 214
ISOAbstractTypedDate, 215
ISOAccuracyOfATimeMeasurement, 216
ISOAddress, 217
ISOAggregateInformation, 220
ISOAggregationDerivation, 223
ISOAnchor, 224
ISOAngle, 225
ISOApplicationSchemaInformation, 226
ISOAssociatedResource, 228
ISOAssociation, 230
ISOAssociationRole, 231
ISOAssociationType, 234
ISOAttributeGroup, 235
ISOAttributes, 237
ISOBand, 238
ISOBaseBoolean, 241
ISOBaseCharacterString, 242
ISOBaseDate, 243
ISOBaseDateTime, 244
ISOBaseDecimal, 245
ISOBaseInteger, 246
ISOBaseReal, 247
ISOBinary, 248
ISOBinding, 250
ISOBoundAssociationRole, 251
ISOBoundFeatureAttribute, 252
ISOBoundingPolygon, 253
ISOBrowseGraphic, 255
ISOCarrierOfCharacteristics, 257
ISOCellGeometry, 258
ISOCharacterSet, 259
ISOCitation, 260
ISOCitationSeries, 267
ISOClassification, 268
ISOCodeDefinition, 270
ISOCodelist, 271
ISOCodelistCatalogue, 273
ISOCodeListDictionary, 274
ISOCodeListValue, 276
ISOCompletenessCommission, 278
ISOCompletenessOmission, 279
ISOConceptualConsistency, 280
ISOConfidence, 282
ISOConformanceResult, 283
ISOConstraint, 285
ISOConstraints, 286
ISOContact, 290
ISOCountry, 294
ISOCoupledResource, 295
ISOCouplingType, 296
ISOCoverageContentType, 298
ISOCoverageDescription, 299
ISOCTCodelistValue, 301
ISODataFile, 303
ISODataIdentification, 305
ISODataIdentification19115_3, 306
ISODataIdentification19139, 308
ISODataInspection, 314
ISODataQuality, 316
ISODataQualityAbstractElement, 319
ISODataQualityScope, 323
ISODataSet, 325
ISODatatype, 327
ISODate, 328
ISODateType, 330
ISODCPList, 331

ISODefinitionReference, 332
ISODefinitionSource, 333
ISODescriptiveResult, 335
ISODigitalTransferOptions, 336
ISODimension, 340
ISODimensionNameType, 341
ISODistance, 343
ISODistribution, 344
ISODistributionUnits, 346
ISODistributor, 348
ISODomainConsistency, 351
ISOElementSequence, 352
ISOEvaluationMethod, 353
ISOEvaluationMethodType, 356
ISOExtendedElementInformation, 357
ISOExtent, 362
ISOFeatureAssociation, 365
ISOFeatureAssociation19115_3, 366
ISOFeatureAssociation19139, 368
ISOFeatureAttribute, 369
ISOFeatureCatalogue, 372
ISOFeatureCatalogueDescription, 376
ISOFeatureOperation, 379
ISOFeatureType, 381
ISOFeatureType19115_3, 382
ISOFeatureType19139, 388
ISOFeatureTypeInfo, 393
ISOFileName, 395
ISOFormat, 396
ISOFormatConsistency, 399
ISOFreeText, 400
ISOFullInspection, 402
ISOGeographicBoundingBox, 403
ISOGeographicDescription, 405
ISOGeographicExtent, 406
ISOGeometricObjects, 407
ISOGeometricObjectType, 409
ISOGeorectified, 410
ISOGeoreferenceable, 413
ISOGriddedDataPositionalAccuracy, 416
ISOGridSpatialRepresentation, 417
ISOHomogeneity, 420
ISOIdentification, 421
ISOIdentification19115_3, 422
ISOIdentification19139, 430
ISOImageDescription, 437
ISOImageryAbstractGeolocationInformation, 441
ISOImageryAcquisitionInformation, 442
ISOImageryAlgorithm, 446
ISOImageryBand, 448
ISOImageryBandDefinition, 451
ISOImageryContext, 452
ISOImageryCoverageDescription, 453
ISOImageryCoverageResult, 455
ISOImageryEnvironmentalRecord, 458
ISOImageryEvent, 460
ISOImageryGCP, 464
ISOImageryGCPCollection, 465
ISOImageryGeometryType, 467
ISOImageryGeorectified, 469
ISOImageryGeoreferenceable, 470
ISOImageryImageDescription, 472
ISOImageryInstrument, 474
ISOImageryMetadata, 478
ISOImageryNominalResolution, 485
ISOImageryObjective, 487
ISOImageryObjectiveType, 491
ISOImageryOperation, 493
ISOImageryOperationType, 497
ISOImageryPlan, 498
ISOImageryPlatform, 502
ISOImageryPlatformPass, 506
ISOImageryPolarisationOrientation, 508
ISOImageryPriority, 509
ISOImageryProcessing, 510
ISOImageryProcessStep, 514
ISOImageryProcessStepReport, 518
ISOImageryRangeElementDescription, 520
ISOImageryRequestedDate, 522
ISOImageryRequirement, 523
ISOImageryRevision, 528
ISOImagerySensor, 529
ISOImagerySensorType, 531
ISOImagerySequence, 532
ISOImagerySource, 533
ISOImageryTransferFunctionType, 535
ISOImageryTrigger, 536
ISOImageryUsability, 537
ISOImagingCondition, 538

ISOIndirectEvaluation, 539
ISOIndividual, 540
ISOInheritanceRelation, 541
ISOInitiative, 543
ISOInitiativeType, 544
ISOInstrumentationEvent, 546
ISOInstrumentationEventList, 549
ISOInstrumentationEventType, 551
ISOKeywordClass, 552
ISOKeywords, 554
ISOKeywordType, 557
ISOLanguage, 558
ISOLegalConstraints, 559
ISOLength, 562
ISOLineage, 563
ISOListedValue, 565
ISOLocale, 567
ISOLocaleContainer, 570
ISOLocalisedCharacterString, 573
ISOLocalName, 574
ISOMaintenanceFrequency, 575
ISOMaintenanceInformation, 576
ISOMDFeatureCatalogue, 578
ISOMeasure, 579
ISOMeasureReference, 580
ISOMedium, 582
ISOMediumFormat, 585
ISOMediumName, 586
ISOMemberName, 587
ISOMetadata, 589
ISOMetadataExtensionInformation, 607
ISOMetadataNamespace, 609
ISOMetadataScope, 611
ISOMetaIdentifier, 612
ISOMimeFileType, 615
ISOMLCodeDefinition, 616
ISOMLCodeListDictionary, 617
ISOMultiplicity, 618
ISOMultiplicityRange, 620
ISONonQuantitativeAttributeAccuracy, 621
ISONonQuantitativeAttributeCorrectness, 622
ISOObligation, 623
ISOOnLineFunction, 624
ISOOnlineResource, 625
ISOOperationChainMetadata, 628
ISOOperationMetadata, 630
ISOOrganisation, 633
ISOOtherAggregate, 635
ISOParameterDirection, 636
ISOPeriodDuration, 637
ISOPixelOrientation, 639
ISOPlatform, 640
ISOPortrayalCatalogueReference, 641
ISOPresentationForm, 643
ISOProcessParameter, 644
ISOProcessStep, 645
ISOProductionSeries, 648
ISOProgress, 649
ISOPropertyType, 650
ISOQualityResultFile, 651
ISOQuantitativeAttributeAccuracy, 653
ISOQuantitativeResult, 654
ISORangeDimension, 657
ISORecord, 659
ISORecordType, 660
ISOReferenceIdentifier, 661
ISOReferenceSystem, 663
ISOReferenceSystemType, 664
ISOReleasability, 666
ISORepresentativeFraction, 668
ISORepresentativity, 669
ISOResolution, 670
ISOResponsibility, 672
ISOResponsibleParty, 674
ISORestriction, 676
ISORole, 678
ISORoleType, 679
ISOSampleBasedInspection, 680
ISOSampleDimension, 681
ISOScale, 684
ISOScope, 686
ISOScopeCode, 688
ISOScopeDescription, 689
ISOScopedName, 692
ISOSecurityConstraints, 693
ISOSensor, 695
ISOSeries, 696
ISOServiceIdentification, 698
ISOServiceIdentification19115_3, 700
ISOServiceIdentification19139, 701

ISOSource, 702
ISOSpatialRepresentation, 705
ISOSpatialRepresentationType, 706
ISOSpatialTemporalExtent, 707
ISOSRVParameter, 709
ISOSRVParameterDirection, 712
ISOSRVServiceIdentification, 713
ISOSRVServiceIdentification19115_3, 721
ISOSRVServiceIdentification19139, 725
ISOStandaloneQualityReportInformation, 729
ISOStandardOrderProcess, 731
ISOStatus, 733
ISOStereoMate, 734
ISOTelephone, 736
ISOTelephoneType, 738
ISOTemporalConsistency, 739
ISOTemporalExtent, 740
ISOTemporalValidity, 742
ISOThematicClassificationCorrectness, 743
ISOTopicCategory, 744
ISOTopologicalConsistency, 745
ISOTopologyLevel, 747
ISOTypeName, 748
ISOUnlimitedInteger, 749
ISOUomIdentifier, 750
ISOURI, 751
ISOURL, 752
ISOUsabilityElement, 754
ISOUsage, 755
ISOVectorSpatialRepresentation, 757
ISOVerticalExtent, 759
SWEAbstractDataComponent, 772
SWEAbstractEncoding, 774
SWEAbstractObject, 775
SWEAbstractSimpleComponent, 776
SWEAbstractSWE, 778
SWEAbstractSWEIdentifiable, 779
SWECategory, 781
SWECategoryRange, 783
SWECount, 785
SWECountRange, 787
SWEDataRecord, 789
SWEElement, 790
SWENilValues, 792
SWEQuantity, 793
SWEQuantityRange, 795
SWEText, 797
SWETextEncoding, 799
SWETime, 800
SWETimeRange, 802
SWEXMLEncoding, 804
* **Implicit**
GMLAbstractImplicitGeometry, 46
* **InheritanceRelation**
ISOInheritanceRelation, 541
* **LineString**
GMLLineString, 99
* **LinearRing**
GMLLinearRing, 98
* **MultiCurve**
GMLMultiCurve, 100
* **MultiPoint**
GMLMultiPoint, 103
* **MultiSurface**
GMLMultiSurface, 108
* **OGC**
GMLGeneralGridAxis, 86
* **ObjectiveType**
ISOImageryObjectiveType, 491
* **Obligation**
ISOObligation, 623
* **ObliqueCartesian**
GMLObliqueCartesianCS, 111
* **OnLineFunction**
ISOOnLineFunction, 624
* **OperationChainMetadata**
ISOOperationChainMetadata, 628
* **OperationMetadata**
ISOOperationMetadata, 630
* **Operation**
GMLAbstractCoordinateOperation, 24
GMLAbstractSingleOperation, 52
ISOImageryOperation, 493
ISOImageryOperationType, 497
* **Plan**
ISOImageryPlan, 498
* **PlatformPass**
ISOImageryPlatformPass, 506
* **Point**
GMLPoint, 121
GMLPolygon, 123

∗ **Polarisation**
ISOImageryPolarisationOrientation, 508
∗ **Primitive**
GMLAbstractGeometricPrimitive, 41
∗ **ProcessStepReport**
ISOImageryProcessStepReport, 518
∗ **Quantitative**
ISOQuantitativeResult, 654
∗ **Restriction**
ISORestriction, 676
∗ **SWE**
SWEAbstractDataComponent, 772
SWEAbstractEncoding, 774
SWEAbstractSimpleComponent, 776
SWEAbstractSWEIdentifiable, 779
SWECategory, 781
SWECategoryRange, 783
SWECount, 785
SWECountRange, 787
SWEDataRecord, 789
SWENilValues, 792
SWEQuantity, 793
SWEQuantityRange, 795
SWEText, 797
SWETextEncoding, 799
SWETime, 800
SWETimeRange, 802
SWEXMLEncoding, 804
∗ **Sensor**
ISOSensor, 695
∗ **Series**
ISOSeries, 696
∗ **StandardOrderProcess**
ISOStandardOrderProcess, 731
∗ **Surface**
GMLAbstractSurface, 53
∗ **URI**
ISOURI, 751
∗ **URL**
ISOURL, 752
∗ **UserDefined**
GMLUserDefinedCS, 144
∗ **absolute**
ISOAbsoluteExternalPositionalAccuracy, 150
∗ **abstract**
GMLAbstractCoordinateOperation, 24
GMLAbstractCoordinateSystem, 26
GMLAbstractCoverage, 28
GMLAbstractCRS, 30
GMLAbstractDiscreteCoverage, 32
GMLAbstractFeature, 34
GMLAbstractGeneralConversion, 35
GMLAbstractGeneralDerivedCRS, 37
GMLAbstractGeneralOperationParameter, 38
GMLAbstractSingleCRS, 51
GMLAbstractSingleOperation, 52
GMLAbstractTimeObject, 55
GMLAbstractTimePrimitive, 56
ISOAbstractAcquisitionInformation, 151
ISOAbstractAggregate, 152
ISOAbstractApplicationSchemaInformation, 155
ISOAbstractCarrierOfCharacteristics, 156
ISOAbstractCatalogue, 158
ISOAbstractCitation, 161
ISOAbstractCompleteness, 162
ISOAbstractConstraints, 163
ISOAbstractContentInformation, 164
ISOAbstractDataEvaluation, 165
ISOAbstractDataQuality, 168
ISOAbstractDistribution, 169
ISOAbstractExtent, 170
ISOAbstractFormat, 173
ISOAbstractGenericName, 174
ISOAbstractLineageInformation, 175
ISOAbstractLogicalConsistency, 176
ISOAbstractMaintenanceInformation, 177
ISOAbstractMDContentInformation, 178
ISOAbstractMetadata, 179
ISOAbstractMetadataExtension, 180
ISOAbstractMetaquality, 181
ISOAbstractOnlineResource, 190
ISOAbstractParameter, 191
ISOAbstractParty, 194
ISOAbstractPlatform, 196
ISOAbstractPortrayalCatalogueInformation, 197
ISOAbstractPositionalAccuracy, 198
ISOAbstractPropertyType, 199

ISOAbstractQualityElement, 201
ISOAbstractReferenceSystem, 203
ISOAbstractResourceDescription, 204
ISOAbstractResponsibility, 205
ISOAbstractRSReferenceSystem, 207
ISOAbstractSpatialRepresentation, 209
ISOAbstractSpatialResolution, 210
ISOAbstractStandardOrderProcess, 211
ISOAbstractTemporalAccuracy, 212
ISOAbstractTemporalQuality, 213
ISOAbstractThematicAccuracy, 214
ISOAbstractTypedDate, 215
ISODataQualityAbstractElement, 319
ISOImageryAbstractGeolocationInformation, 441
* **accuracy**
ISOAbsoluteExternalPositionalAccuracy, 150
ISOAbstractPositionalAccuracy, 198
ISOAbstractTemporalAccuracy, 212
ISOAbstractThematicAccuracy, 214
ISOAccuracyOfATimeMeasurement, 216
ISOGriddedDataPositionalAccuracy, 416
ISONonQuantitativeAttributeAccuracy, 621
ISOQuantitativeAttributeAccuracy, 653
ISOThematicClassificationCorrectness, 743
* **acquisition**
ISOAbstractAcquisitionInformation, 151
* **address**
ISOAddress, 217
ISOSpatialRepresentation, 705
ISOVectorSpatialRepresentation, 757
* **affine**
GMLAffineCS, 58
* **aggregated**
ISOAggregateInformation, 220
* **aggregate**
ISOAbstractAggregate, 152
ISOOtherAggregate, 635
* **aggregation**
ISOAggregationDerivation, 223
* **algorithm**
ISOImageryAlgorithm, 446
* **anchor**
ISOAnchor, 224
* **angle**
ISOAngle, 225
* **application**
ISOAbstractApplicationSchemaInformation, 155
ISOApplicationSchemaInformation, 226
* **associated**
ISOAssociatedResource, 228
* **association**
ISOAssociation, 230
ISOAssociationRole, 231
ISOAssociationType, 234
ISOFeatureAssociation, 365
ISOFeatureAssociation19115_3, 366
ISOFeatureAssociation19139, 368
* **attributes**
ISOAttributes, 237
* **attribute**
ISOAttributeGroup, 235
ISONonQuantitativeAttributeAccuracy, 621
ISONonQuantitativeAttributeCorrectness, 622
ISOQuantitativeAttributeAccuracy, 653
* **axis**
GMLCoordinateSystemAxis, 69
* **band**
ISOBand, 238
ISOImageryBand, 448
ISOImageryBandDefinition, 451
* **based**
ISOSampleBasedInspection, 680
* **base**
GMLBaseUnit, 59
* **binary**
ISOBinary, 248
* **boolean**
ISOBaseBoolean, 241
* **bounding**
ISOBoundingPolygon, 253

∗ **browse**
ISOBrowseGraphic, 255
ISOScopeDescription, 689
∗ **carrierOfCharacteristics**
ISOAbstractCarrierOfCharacteristics, 156
ISOCarrierOfCharacteristics, 257
∗ **cartesian**
GMLCartesianCS, 61
∗ **catalogue**
ISOAbstractCatalogue, 158
ISOAbstractFeatureCatalogue, 171
ISOAbstractPortrayalCatalogueInformation, 197
ISOFeatureCatalogue, 372
ISOFeatureCatalogueDescription, 376
ISOMDFeatureCatalogue, 578
ISOPortrayalCatalogueReference, 641
∗ **category**
ISOTopicCategory, 744
∗ **cell**
ISOCellGeometry, 258
∗ **characterSet**
ISOCharacterSet, 259
∗ **character**
ISOBaseCharacterString, 242
ISOLocalisedCharacterString, 573
∗ **charset**
ISOCharacterSet, 259
ISOTopologyLevel, 747
∗ **citation**
ISOAbstractCitation, 161
ISOCitation, 260
ISOCitationSeries, 267
ISOCodelistCatalogue, 273
∗ **classification**
ISOThematicClassificationCorrectness, 743
∗ **codelist**
ISOCodelist, 271
∗ **codetype**
GMLCodeType, 62
∗ **code**
ISOCodeDefinition, 270
ISOCodeListDictionary, 274
ISOCodeListValue, 276
ISOCTCodelistValue, 301
ISOMLCodeDefinition, 616
ISOMLCodeListDictionary, 617
ISOScopeCode, 688
∗ **collection**
ISOImageryGCP, 464
ISOImageryGCPCollection, 465
∗ **commission**
ISOCompletenessCommission, 278
∗ **completeness**
ISOAbstractCompleteness, 162
ISOCompletenessCommission, 278
ISOCompletenessOmission, 279
∗ **compound**
GMLCompoundCRS, 63
∗ **conceptual**
ISOConceptualConsistency, 280
∗ **condition**
ISOImagingCondition, 538
∗ **confidence**
ISOConfidence, 282
∗ **conformance**
ISOConformanceResult, 283
∗ **consistency**
ISOAbstractLogicalConsistency, 176
ISOConceptualConsistency, 280
ISODomainConsistency, 351
ISOFormatConsistency, 399
ISOTemporalConsistency, 739
ISOTopologicalConsistency, 745
∗ **constraints**
ISOAbstractConstraints, 163
ISOConstraints, 286
ISOLegalConstraints, 559
ISOSecurityConstraints, 693
∗ **constraint**
ISOConstraint, 285
∗ **contact**
ISOContact, 290
∗ **container**
ISOLocaleContainer, 570
∗ **content**
ISOAbstractContentInformation, 164
ISOAbstractMDContentInformation, 178
∗ **context**
ISOImageryContext, 452
∗ **conventional**

GMLConventionalUnit, 65
* **conversion**
GMLAbstractGeneralConversion, 35
GMLConversion, 67
* **convert**
pivot_converter, 761
pivot_format, 762
* **coordinate**
GMLAbstractCoordinateOperation, 24
GMLAbstractCoordinateSystem, 26
GMLAffineCS, 58
GMLCartesianCS, 61
GMLCoordinateSystemAxis, 69
GMLCylindricalCS, 74
GMLEllipsoidalCS, 81
GMLLinearCS, 97
GMLObliqueCartesianCS, 111
GMLPolarCS, 122
GMLSphericalCS, 134
GMLTemporalCS, 136
GMLTimeCS, 137
GMLUserDefinedCS, 144
GMLVerticalCS, 146
* **correctness**
ISONonQuantitativeAttributeCorrectness, 622
ISOThematicClassificationCorrectness, 743
* **country**
ISOCountry, 294
* **coupling**
ISOCouplingType, 296
* **coverage**
GMLAbstractCoverage, 28
GMLAbstractDiscreteCoverage, 32
GMLGridCoverage, 92
GMLMultiCurveCoverage, 102
GMLMultiPointCoverage, 105
GMLMultiSolidCoverage, 106
GMLMultiSurfaceCoverage, 109
GMLRectifiedGridCoverage, 128
ISOCoverageDescription, 299
ISOImageDescription, 437
ISOImageryCoverageResult, 455
* **crs**
GMLAbstractGeneralDerivedCRS, 37
GMLAbstractSingleCRS, 51
GMLDerivedCRS, 76
GMLGeodeticCRS, 88
GMLProjectedCRS, 124
GMLTemporalCRS, 135
GMLVerticalCRS, 145
* **cylindrical**
GMLCylindricalCS, 74
* **datasets**
codelists, 12
* **dataset**
ISODataSet, 325
* **data**
ISOAbsoluteExternalPositionalAccuracy, 150
ISOAbstractCompleteness, 162
ISOAbstractDataEvaluation, 165
ISOAbstractDataQuality, 168
ISOAbstractLogicalConsistency, 176
ISOAbstractPositionalAccuracy, 198
ISOAbstractResult, 206
ISOAbstractTemporalAccuracy, 212
ISOAbstractThematicAccuracy, 214
ISOAccuracyOfATimeMeasurement, 216
ISOCompletenessCommission, 278
ISOCompletenessOmission, 279
ISOConceptualConsistency, 280
ISODataFile, 303
ISODataIdentification, 305
ISODataIdentification19115_3, 306
ISODataIdentification19139, 308
ISODataInspection, 314
ISODataQuality, 316
ISODataQualityAbstractElement, 319
ISODescriptiveResult, 335
ISODomainConsistency, 351
ISOFormatConsistency, 399
ISOGriddedDataPositionalAccuracy, 416
ISONonQuantitativeAttributeAccuracy, 621
ISONonQuantitativeAttributeCorrectness, 622
ISOQuantitativeAttributeAccuracy, 653
ISOTemporalConsistency, 739
ISOTemporalValidity, 742
ISOThematicClassificationCorrectness, 743
ISOTopologicalConsistency, 745

ISOUsabilityElement, 754
* **datetime**
ISOBaseDateTime, 244
* **datetype**
ISODateType, 330
* **date**
ISOAbstractTypedDate, 215
ISOBaseDate, 243
ISODate, 328
ISOImageryRequestedDate, 522
* **decimal**
ISOBaseDecimal, 245
* **definition**
GMLBaseUnit, 59
GMLConventionalUnit, 65
GMLDefinition, 75
GMLDerivedUnit, 78
GMLUnitDefinition, 142
ISOCodeDefinition, 270
ISOCTCodelistValue, 301
ISODefinitionReference, 332
ISODefinitionSource, 333
ISOImageryBandDefinition, 451
ISOMLCodeDefinition, 616
* **derivation**
ISOAggregationDerivation, 223
* **derived**
GMLDerivedCRS, 76
GMLDerivedUnit, 78
* **description**
ISOAbstractResourceDescription, 204
ISOCoverageDescription, 299
ISOFeatureCatalogueDescription, 376
ISOGeographicDescription, 405
ISOImageDescription, 437
ISOImageryCoverageDescription, 453
ISOImageryImageDescription, 472
ISOImageryRangeElementDescription, 520
* **descriptive**
ISODescriptiveResult, 335
* **dimension**
ISODimension, 340
ISORangeDimension, 657
ISOSampleDimension, 681
* **direction**
ISOParameterDirection, 636
ISOSRVParameterDirection, 712
* **discrete**
GMLAbstractDiscreteCoverage, 32
* **distance**
ISODistance, 343
* **distribution**
ISOAbstractDistribution, 169
ISODigitalTransferOptions, 336
ISODistribution, 344
ISODistributionUnits, 346
* **distributor**
ISODistributor, 348
* **domain**
ISODomainConsistency, 351
* **duration**
ISOPeriodDuration, 637
* **element**
GMLElement, 80
ISOAbstractObject, 182
ISOAbstractQualityElement, 201
ISOCodeListDictionary, 274
ISODataQualityAbstractElement, 319
ISOExtendedElementInformation, 357
ISOImageryAcquisitionInformation, 442
ISOImageryMetadata, 478
ISOImageryRangeElementDescription, 520
ISOMetadata, 589
ISOMLCodeListDictionary, 617
ISOUsabilityElement, 754
SWEElement, 790
* **ellipsoidal**
GMLEllipsoidalCS, 81
* **environmental**
ISOImageryEnvironmentalRecord, 458
* **evaluation**
ISOAbstractDataEvaluation, 165
ISOEvaluationMethod, 353
ISOIndirectEvaluation, 539
* **event**
ISOImageryEvent, 460
ISOInstrumentationEvent, 546
ISOInstrumentationEventList, 549
ISOInstrumentationEventType, 551
* **extended**
ISOExtendedElementInformation, 357

* **extension**
  ISOAbstractMetadataExtension, 180
  ISOMetadataExtensionInformation, 607
* **extent**
  ISOAbstractExtent, 170
  ISODataQualityScope, 323
  ISOExtent, 362
  ISOGeographicBoundingBox, 403
  ISOGeographicExtent, 406
  ISOResolution, 670
  ISOSpatialTemporalExtent, 707
  ISOTemporalExtent, 740
  ISOVerticalExtent, 759
* **external**
  ISOAbsoluteExternalPositionalAccuracy, 150
* **feature**
  GMLAbstractFeature, 34
  ISOAbstractFeatureCatalogue, 171
  ISOAbstractFeatureType, 172
  ISOConstraint, 285
  ISOFeatureAssociation, 365
  ISOFeatureAssociation19115_3, 366
  ISOFeatureAssociation19139, 368
  ISOFeatureAttribute, 369
  ISOFeatureCatalogue, 372
  ISOFeatureCatalogueDescription, 376
  ISOFeatureOperation, 379
  ISOFeatureType, 381
  ISOFeatureType19115_3, 382
  ISOFeatureType19139, 388
  ISOFeatureTypeInfo, 393
  ISOMDFeatureCatalogue, 578
* **file**
  ISODataFile, 303
  ISOFileName, 395
  ISOMimeFileType, 615
  ISOQualityResultFile, 651
  ISOResponsibleParty, 674
  ISOTelephone, 736
* **format**
  ISOAbstractFormat, 173
  ISOFormat, 396
  ISOFormatConsistency, 399
  ISOMediumFormat, 585
* **form**
  ISOPresentationForm, 643
* **fraction**
  ISORepresentativeFraction, 668
* **freeText**
  ISOFreeText, 400
* **full**
  ISOFullInspection, 402
* **function**
  ISOImageryTransferFunctionType, 535
* **gcp**
  ISOImageryGCP, 464
  ISOImageryGCPCollection, 465
* **general**
  GMLAbstractGeneralConversion, 35
  GMLAbstractGeneralOperationParameter, 38
* **generic**
  ISOAbstractGenericName, 174
* **geodetic**
  GMLGeodeticCRS, 88
* **geographic**
  ISOGeographicDescription, 405
* **geolocation**
  ISOImageryAbstractGeolocationInformation, 441
* **geometric**
  ISOGeometricObjectType, 409
* **geometry**
  ISOCellGeometry, 258
  ISOGeometricObjects, 407
  ISOImageryGeometryType, 467
* **georectified**
  ISOGeorectified, 410
  ISOImageryGeorectified, 469
* **georeferenceable**
  ISOGeoreferenceable, 413
* **graphic**
  ISOBrowseGraphic, 255
  ISOScopeDescription, 689
* **gridded**
  ISOGriddedDataPositionalAccuracy, 416
* **grid**
  GMLGridCoverage, 92
  GMLRectifiedGridCoverage, 128
  ISOGeoreferenceable, 413
  ISOGridSpatialRepresentation, 417

∗ **group**
GMLOperationParameterGroup, 115
GMLParameterValueGroup, 119
ISOAttributeGroup, 235
∗ **hierarchyLevel**
ISOMaintenanceFrequency, 575
∗ **hierarchy**
ISOScopeCode, 688
∗ **homogeneity**
ISOHomogeneity, 420
∗ **identification**
ISODataIdentification, 305
ISODataIdentification19115_3, 306
ISODataIdentification19139, 308
ISOIdentification, 421
ISOIdentification19115_3, 422
ISOIdentification19139, 430
ISOServiceIdentification, 698
ISOServiceIdentification19115_3, 700
ISOServiceIdentification19139, 701
ISOSRVServiceIdentification, 713
ISOSRVServiceIdentification19115_3, 721
ISOSRVServiceIdentification19139, 725
∗ **identifier**
ISOMetaIdentifier, 612
ISOReferenceIdentifier, 661
ISOResponsibleParty, 674
ISOTelephone, 736
ISOUomIdentifier, 750
∗ **imagery**
ISOImageryAbstractGeolocationInformation, 441
ISOImageryAcquisitionInformation, 442
ISOImageryAlgorithm, 446
ISOImageryBand, 448
ISOImageryBandDefinition, 451
ISOImageryContext, 452
ISOImageryCoverageDescription, 453
ISOImageryCoverageResult, 455
ISOImageryEnvironmentalRecord, 458
ISOImageryEvent, 460
ISOImageryGCP, 464
ISOImageryGCPCollection, 465
ISOImageryGeometryType, 467
ISOImageryGeoreferenceable, 470
ISOImageryImageDescription, 472
ISOImageryInstrument, 474
ISOImageryMetadata, 478
ISOImageryNominalResolution, 485
ISOImageryObjective, 487
ISOImageryObjectiveType, 491
ISOImageryOperation, 493
ISOImageryOperationType, 497
ISOImageryPlan, 498
ISOImageryPlatform, 502
ISOImageryPlatformPass, 506
ISOImageryPolarisationOrientation, 508
ISOImageryPriority, 509
ISOImageryProcessing, 510
ISOImageryProcessStep, 514
ISOImageryProcessStepReport, 518
ISOImageryRangeElementDescription, 520
ISOImageryRequestedDate, 522
ISOImageryRequirement, 523
ISOImageryRevision, 528
ISOImagerySensor, 529
ISOImagerySensorType, 531
ISOImagerySequence, 532
ISOImagerySource, 533
ISOImageryTransferFunctionType, 535
ISOImageryTrigger, 536
ISOImageryUsability, 537
ISOInstrumentationEvent, 546
ISOInstrumentationEventList, 549
∗ **image**
ISOImageryCoverageDescription, 453
ISOImageryGeorectified, 469
ISOImageryImageDescription, 472
∗ **imaging**
ISOImagingCondition, 538
∗ **indirect**
ISOIndirectEvaluation, 539
∗ **individual**
ISOIndividual, 540
∗ **information**
ISOAbstractAcquisitionInformation, 151
ISOAbstractApplicationSchemaInformation, 155

ISOAbstractContentInformation, 164
ISOAbstractLineageInformation, 175
ISOAbstractMaintenanceInformation, 177
ISOAbstractMDContentInformation, 178
ISOAbstractPortrayalCatalogueInformation, 197
ISOAggregateInformation, 220
ISOApplicationSchemaInformation, 226
ISOExtendedElementInformation, 357
ISOImageryAbstractGeolocationInformation, 441
ISOMaintenanceInformation, 576
ISOMetadataExtensionInformation, 607
ISOStandaloneQualityReportInformation, 729
* **info**
ISOFeatureTypeInfo, 393
* **initative**
ISOInitiativeType, 544
* **initiative**
ISOInitiative, 543
* **inspection**
ISODataInspection, 314
ISOFullInspection, 402
ISOSampleBasedInspection, 680
* **instant**
GMLTimeInstant, 138
* **instrumenetation**
ISOInstrumentationEventType, 551
* **instrumentation**
ISOInstrumentationEvent, 546
ISOInstrumentationEventList, 549
* **integer**
ISOBaseInteger, 246
ISOUnlimitedInteger, 749
* **item**
ISOCodeListValue, 276
* **keywordclass**
ISOKeywordClass, 552
* **keywords**
ISOKeywords, 554
* **keywordtype**
ISOKeywordType, 557
* **language**
ISOLanguage, 558
* **legal**
ISOLegalConstraints, 559
* **length**
ISODistance, 343
ISOLength, 562
* **level**
ISOScopeCode, 688
ISOTopologyLevel, 747
* **lineage**
ISOAbstractLineageInformation, 175
ISOLineage, 563
* **linear**
GMLLinearCS, 97
* **listed**
ISOListedValue, 565
* **list**
ISOCodeListValue, 276
ISOInstrumentationEventList, 549
* **locale**
ISOLocale, 567
ISOLocaleContainer, 570
* **localised**
ISOLocalisedCharacterString, 573
* **local**
ISOLocalName, 574
* **logger**
geometaLogger, 15
* **logical**
ISOAbstractLogicalConsistency, 176
* **maintenance**
ISOAbstractMaintenanceInformation, 177
ISOMaintenanceInformation, 576
* **mapping**
pivot_converter, 761
pivot_format, 762
* **mate**
ISOStereoMate, 734
* **measurement**
ISOAccuracyOfATimeMeasurement, 216
* **measure**
ISOAngle, 225
ISODistance, 343
ISOLength, 562
ISOMeasure, 579
ISOMeasureReference, 580
ISOScale, 684

∗ **medium**
ISOMedium, 582
ISOMediumFormat, 585
ISOMediumName, 586
∗ **metadata**
INSPIREMetadataValidator, 147
ISOAbstractMetadata, 179
ISOAbstractMetadataExtension, 180
ISOAbstractObject, 182
ISOImageryMetadata, 478
ISOMetadata, 589
ISOMetadataExtensionInformation, 607
ISOMetadataNamespace, 609
ISOMetadataScope, 611
pivot_converter, 761
pivot_format, 762
∗ **meta**
ISOAbstractMetaquality, 181
ISOMetaIdentifier, 612
∗ **method**
GMLOperationMethod, 112
ISOEvaluationMethod, 353
∗ **mime**
ISOMimeFileType, 615
∗ **multicurve**
GMLMultiCurveCoverage, 102
∗ **multiplicity**
ISOMultiplicity, 618
ISOMultiplicityRange, 620
∗ **multipoint**
GMLMultiPointCoverage, 105
∗ **multisolid**
GMLMultiSolidCoverage, 106
∗ **multisurface**
GMLMultiSurfaceCoverage, 109
∗ **namespace**
ISOMetadataNamespace, 609
∗ **name**
ISOAbstractGenericName, 174
ISOFileName, 395
ISOLocalName, 574
ISOMediumName, 586
ISOScopedName, 692
∗ **nominal**
ISOImageryNominalResolution, 485
∗ **non-quantitative**
ISONonQuantitativeAttributeCorrectness, 622
∗ **nonquantitative**
ISONonQuantitativeAttributeAccuracy, 621
∗ **objective**
ISOImageryObjective, 487
∗ **objects**
ISOGeometricObjects, 407
∗ **object**
GMLAbstractTimeObject, 55
ISOGeometricObjectType, 409
∗ **omission**
ISOCompletenessOmission, 279
∗ **online**
ISOAbstractOnlineResource, 190
ISOOnlineResource, 625
∗ **operation**
GMLAbstractGeneralOperationParameter, 38
GMLOperationMethod, 112
GMLOperationParameter, 114
GMLOperationParameterGroup, 115
ISOFeatureAttribute, 369
ISOFeatureOperation, 379
∗ **order**
ISOAbstractStandardOrderProcess, 211
∗ **organisation**
ISOOrganisation, 633
∗ **orientation**
ISOImageryPolarisationOrientation, 508
ISOPixelOrientation, 639
∗ **other**
ISOOtherAggregate, 635
∗ **parameter**
GMLAbstractGeneralOperationParameter, 38
GMLOperationParameter, 114
GMLOperationParameterGroup, 115
GMLParameterValue, 116
GMLParameterValueGroup, 119
ISOAbstractParameter, 191
ISOAbstractReferenceSystem, 203
ISOParameterDirection, 636
ISOProcessParameter, 644
ISOSRVParameter, 709
ISOSRVParameterDirection, 712

* **party**
  ISOAbstractParty, 194
* **period**
  GMLTimePeriod, 140
  ISOPeriodDuration, 637
* **pixel**
  ISOPixelOrientation, 639
* **platform**
  ISOAbstractPlatform, 196
  ISOImageryInstrument, 474
  ISOImageryPlatform, 502
  ISOPlatform, 640
* **polar**
  GMLPolarCS, 122
* **polygon**
  ISOBoundingPolygon, 253
* **portrayal**
  ISOAbstractPortrayalCatalogueInformation, 197
  ISOPortrayalCatalogueReference, 641
* **positional**
  ISOAbsoluteExternalPositionalAccuracy, 150
  ISOAbstractPositionalAccuracy, 198
  ISOGriddedDataPositionalAccuracy, 416
* **presentation**
  ISOPresentationForm, 643
* **primitive**
  GMLAbstractTimeGeometricPrimitive, 54
  GMLAbstractTimePrimitive, 56
* **priority**
  ISOImageryPriority, 509
* **processing**
  ISOImageryProcessing, 510
* **process**
  ISOAbstractStandardOrderProcess, 211
  ISOImageryProcessStep, 514
  ISOProcessParameter, 644
  ISOProcessStep, 645
* **production**
  ISOProductionSeries, 648
* **projected**
  GMLProjectedCRS, 124
* **property**
  ISOAbstractPropertyType, 199
  ISOPropertyType, 650
* **quality**
  ISOAbsoluteExternalPositionalAccuracy, 150
  ISOAbstractCompleteness, 162
  ISOAbstractDataQuality, 168
  ISOAbstractLogicalConsistency, 176
  ISOAbstractMetaquality, 181
  ISOAbstractPositionalAccuracy, 198
  ISOAbstractQualityElement, 201
  ISOAbstractResult, 206
  ISOAbstractTemporalAccuracy, 212
  ISOAbstractTemporalQuality, 213
  ISOAbstractThematicAccuracy, 214
  ISOAccuracyOfATimeMeasurement, 216
  ISOCompletenessCommission, 278
  ISOCompletenessOmission, 279
  ISOConceptualConsistency, 280
  ISODataQuality, 316
  ISODataQualityAbstractElement, 319
  ISODescriptiveResult, 335
  ISODomainConsistency, 351
  ISOFormatConsistency, 399
  ISOGriddedDataPositionalAccuracy, 416
  ISONonQuantitativeAttributeAccuracy, 621
  ISONonQuantitativeAttributeCorrectness, 622
  ISOQualityResultFile, 651
  ISOQuantitativeAttributeAccuracy, 653
  ISOStandaloneQualityReportInformation, 729
  ISOTemporalConsistency, 739
  ISOTemporalValidity, 742
  ISOThematicClassificationCorrectness, 743
  ISOTopologicalConsistency, 745
  ISOUsabilityElement, 754
* **quantitative**
  ISOQuantitativeAttributeAccuracy, 653
* **range**
  ISOImageryRangeElementDescription, 520
  ISOMultiplicityRange, 620

ISORangeDimension, 657
* **real**
ISOBaseReal, 247
* **record**
ISOElementSequence, 352
ISOImageryEnvironmentalRecord, 458
ISOMemberName, 587
ISORecord, 659
ISORecordType, 660
* **rectified**
GMLRectifiedGridCoverage, 128
* **reference**
ISOAbstractRSReferenceSystem, 207
ISODefinitionReference, 332
ISOMeasureReference, 580
ISOPortrayalCatalogueReference, 641
ISOReferenceIdentifier, 661
ISOReferenceSystem, 663
ISOReferenceSystemType, 664
* **releasability**
ISOReleasability, 666
* **report**
ISOStandaloneQualityReportInformation, 729
* **representation**
ISOAbstractSpatialRepresentation, 209
ISOGeoreferenceable, 413
ISOGridSpatialRepresentation, 417
ISOSpatialRepresentationType, 706
* **representative**
ISORepresentativeFraction, 668
* **representativity**
ISORepresentativity, 669
* **requested**
ISOImageryRequestedDate, 522
* **requirement**
ISOImageryRequirement, 523
* **resolution**
ISOAbstractSpatialResolution, 210
ISOImageryNominalResolution, 485
* **resource**
ISOAbstractOnlineResource, 190
ISOAbstractResourceDescription, 204
ISOAssociatedResource, 228
ISOOnlineResource, 625
* **responsibility**
ISOAbstractResponsibility, 205
ISOResponsibility, 672
* **result**
ISOAbstractResult, 206
ISOConformanceResult, 283
ISODescriptiveResult, 335
ISOImageryCoverageResult, 455
ISOQualityResultFile, 651
ISOQuantitativeResult, 654
* **revision**
ISOImageryRevision, 528
* **ring**
GMLAbstractRing, 50
* **roleType**
ISORoleType, 679
* **role**
ISOAssociationRole, 231
ISORole, 678
* **sample**
ISOSampleBasedInspection, 680
ISOSampleDimension, 681
* **scale**
ISOScale, 684
* **schema**
ISOAbstractApplicationSchemaInformation, 155
ISOApplicationSchemaInformation, 226
* **scoped**
ISOScopedName, 692
* **scope**
ISOMetadataScope, 611
ISOScope, 686
ISOScopeCode, 688
* **security**
ISOSecurityConstraints, 693
* **sensor**
ISOImagerySensor, 529
ISOImagerySensorType, 531
* **sequence**
ISOImagerySequence, 532
* **series**
ISOCitationSeries, 267
ISOCodelistCatalogue, 273
ISOProductionSeries, 648
* **service**
ISOServiceIdentification, 698

ISOServiceIdentification19115_3, 700
ISOServiceIdentification19139, 701
ISOSRVServiceIdentification, 713
ISOSRVServiceIdentification19115_3, 721
ISOSRVServiceIdentification19139, 725
* **single**
GMLAbstractGeneralDerivedCRS, 37
GMLAbstractSingleCRS, 51
GMLAbstractSingleOperation, 52
* **source**
ISODefinitionSource, 333
ISOImagerySource, 533
ISOSource, 702
* **spatialtemporal**
ISOSpatialTemporalExtent, 707
* **spatial**
ISOAbstractSpatialRepresentation, 209
ISOAbstractSpatialResolution, 210
ISOGeoreferenceable, 413
ISOGridSpatialRepresentation, 417
ISOSpatialRepresentationType, 706
* **spherical**
GMLSphericalCS, 134
* **standalone**
ISOStandaloneQualityReportInformation, 729
* **standard**
ISOAbstractStandardOrderProcess, 211
* **status**
ISOProgress, 649
ISOStatus, 733
* **step**
ISOImageryProcessStep, 514
ISOProcessStep, 645
* **stereo**
ISOStereoMate, 734
* **string**
ISOBaseCharacterString, 242
ISOLocalisedCharacterString, 573
* **system**
GMLAbstractCoordinateSystem, 26
GMLAffineCS, 58
GMLCartesianCS, 61
GMLCoordinateSystemAxis, 69
GMLCylindricalCS, 74
GMLEllipsoidalCS, 81
GMLLinearCS, 97
GMLObliqueCartesianCS, 111
GMLPolarCS, 122
GMLSphericalCS, 134
GMLTemporalCS, 136
GMLTimeCS, 137
GMLUserDefinedCS, 144
GMLVerticalCS, 146
ISOAbstractRSReferenceSystem, 207
ISOReferenceSystem, 663
ISOReferenceSystemType, 664
* **telephone**
ISOTelephoneType, 738
* **temporal**
GMLAbstractTimeGeometricPrimitive, 54
GMLTemporalCRS, 135
GMLTemporalCS, 136
ISOAbstractTemporalAccuracy, 212
ISOAbstractTemporalQuality, 213
ISOAccuracyOfATimeMeasurement, 216
ISOTemporalConsistency, 739
ISOTemporalExtent, 740
ISOTemporalValidity, 742
* **thematic**
ISOAbstractThematicAccuracy, 214
ISOThematicClassificationCorrectness, 743
* **time**
GMLAbstractTimeObject, 55
GMLAbstractTimePrimitive, 56
GMLTimeCS, 137
GMLTimeInstant, 138
GMLTimePeriod, 140
ISOAccuracyOfATimeMeasurement, 216
* **topic**
ISOTopicCategory, 744
* **topological**
ISOTopologicalConsistency, 745
* **topology**
ISOTopologyLevel, 747
* **transfer**
ISOImageryTransferFunctionType, 535
* **trigger**

ISOImageryTrigger, 536
∗ **typed**
ISOAbstractTypedDate, 215
∗ **typename**
ISOTypeName, 748
∗ **type**
ISOAbstractFeatureType, 172
ISOAbstractPropertyType, 199
ISOAssociationType, 234
ISOCouplingType, 296
ISOFeatureType, 381
ISOFeatureType19115_3, 382
ISOFeatureType19139, 388
ISOFeatureTypeInfo, 393
ISOGeometricObjectType, 409
ISOImageryGeometryType, 467
ISOImageryOperationType, 497
ISOImagerySensorType, 531
ISOImageryTransferFunctionType, 535
ISOInitiativeType, 544
ISOInstrumentationEventType, 551
ISOMimeFileType, 615
ISOPropertyType, 650
ISOReferenceSystemType, 664
ISOSpatialRepresentationType, 706
ISOTelephoneType, 738
∗ **units**
ISODistributionUnits, 346
∗ **unit**
GMLBaseUnit, 59
GMLConventionalUnit, 65
GMLDerivedUnit, 78
GMLUnitDefinition, 142
∗ **unlimited**
ISOUnlimitedInteger, 749
∗ **uom**
ISOUomIdentifier, 750
∗ **usability**
ISOImageryUsability, 537
ISOUsabilityElement, 754
∗ **usage**
ISOUsage, 755
∗ **validation**
INSPIREMetadataValidator, 147
∗ **validator**
INSPIREMetadataValidator, 147
∗ **validity**
ISOTemporalValidity, 742
∗ **value**
GMLParameterValue, 116
GMLParameterValueGroup, 119
ISOListedValue, 565
∗ **vertical**
GMLVerticalCRS, 145
GMLVerticalCS, 146
ISOVerticalExtent, 759

cacheISOClasses, 12, *12*
character, *113*, *139*, *149*, *160*, *167*, *192*, *200*, *221*, *222*, *232*, *253*, *264*, *277*, *292*, *300*, *304*, *310–312*, *321*, *322*, *324*, *329*, *341*, *355*, *359*, *370*, *384*, *385*, *390*, *394*, *408*, *411*, *412*, *419*, *425–427*, *433*, *438*, *449*, *450*, *457*, *462*, *466*, *476*, *488*, *489*, *494*, *495*, *499*, *500*, *503*, *507*, *511*, *521*, *525*, *534*, *548*, *555*, *561*, *569*, *571*, *572*, *577*, *582–584*, *592–596*, *626*, *627*, *631*, *652*, *656*, *664*, *673*, *675*, *687*, *694*, *710*, *711*, *714*, *716*, *722*, *724*, *726*, *728*, *732*, *733*, *737*, *758*
codelists, 12
convert_metadata, 13

data.frame, *272*, *610*
Date, *85*, *86*, *139*, *141*, *263*, *329*

FALSE, *157*

geometa, 14
geometa-package *(*geometa*)*, 14
geometa::geometaLogger, *24*, *27*, *28*, *30*, *32–34*, *36–39*, *41*, *42*, *44*, *46*, *48–55*, *57–59*, *61–63*, *65*, *67*, *69*, *71*, *73–75*, *77*, *78*, *80–82*, *84*, *86*, *89*, *90*, *93–95*, *97–100*, *102*, *103*, *105*, *106*, *108*, *110–112*, *114*, *115*, *117*, *119*, *121–123*, *125*, *126*, *128*, *129*, *131*, *132*, *134*, *135*, *137*, *138*, *140*, *143–145*, *147*, *148*, *150–152*, *155*, *156*, *158*, *162–165*, *168–181*, *183*, *190*, *191*, *194*, *196–199*, *202–207*, *209–217*, *220*, *223–226*, *229–231*, *234*, *235*, *238*, *241–246*, *248–252*, *254*, *255*, *257–259*, *261*, *267*, *269–271*, *273*, *275*, *276*, *278*, *279*,

281–283, *285*, *287*, *290*, *294*, *295*, *297–299*, *302*, *303*, *305*, *306*, *309*, *315*, *316*, *319*, *324*, *325*, *327*, *328*, *330–332*, *334*, *335*, *337*, *340*, *342–344*, *347*, *348*, *351*, *352*, *354*, *356*, *357*, *362*, *365*, *366*, *368*, *369*, *372*, *376*, *379*, *381*, *383*, *388*, *394–396*, *399*, *401–403*, *405*, *406*, *408–410*, *413*, *416*, *417*, *420–422*, *430*, *437*, *441*, *442*, *446*, *449*, *451*, *452*, *454*, *456*, *458*, *461*, *464*, *465*, *468–470*, *472*, *474*, *478*, *486*, *487*, *492*, *493*, *497*, *499*, *502*, *506*, *508*, *509*, *511*, *514*, *518*, *520*, *522*, *523*, *528*, *530–533*, *535–540*, *542*, *544–546*, *549*, *551*, *553*, *554*, *557–559*, *562*, *563*, *566*, *568*, *570*, *573–576*, *578–580*, *582*, *585*, *586*, *588*, *589*, *607*, *611*, *613*, *615*, *616*, *618–624*, *626*, *628*, *630*, *633*, *635–637*, *639–641*, *643*, *645*, *646*, *648–651*, *653*, *654*, *657*, *659–661*, *663*, *665*, *666*, *668–670*, *672*, *674*, *677–681*, *685*, *686*, *688*, *689*, *692*, *693*, *695*, *696*, *698*, *700–702*, *705*, *706*, *708*, *709*, *712*, *713*, *721*, *725*, *729*, *731*, *733*, *735*, *736*, *738–740*, *742–744*, *746–752*, *754*, *755*, *757*, *759*, *772*, *774–776*, *778*, *779*, *781*, *783*, *785*, *787*, *789*, *791–793*, *795*, *797*, *799*, *800*, *802*, *804*

geometa::GMLAbstractCoordinateOperation, *36*, *52*, *67*

geometa::GMLAbstractCoordinateSystem, *58*, *61*, *74*, *81*, *97*, *111*, *122*, *134*, *137*, *138*, *144*, *147*

geometa::GMLAbstractCoverage, *33*, *71*, *93*, *102*, *105*, *106*, *110*, *128*

geometa::GMLAbstractCRS, *37*, *51*, *63*, *77*, *89*, *125*, *135*, *145*

geometa::GMLAbstractCurve, *99*

geometa::GMLAbstractDiscreteCoverage, *93*, *102*, *105*, *106*, *110*, *128*

geometa::GMLAbstractFeature, *28*, *33*, *71*, *93*, *102*, *105*, *106*, *110*, *128*

geometa::GMLAbstractGeneralConversion, *67*

geometa::GMLAbstractGeneralDerivedCRS, *77*, *125*

geometa::GMLAbstractGeneralOperationParameter, *114*, *115*

geometa::GMLAbstractGeneralParameterValue, *117*, *119*

geometa::GMLAbstractGeometricAggregate, *100*, *103*, *108*

geometa::GMLAbstractGeometricPrimitive, *32*, *53*, *99*, *121*, *123*

geometa::GMLAbstractGeometry, *32*, *41*, *46*, *49*, *53*, *90*, *99*, *100*, *103*, *108*, *121*, *123*, *126*, *129*, *131*, *132*

geometa::GMLAbstractGML, *24*, *27*, *30*, *32*, *36–38*, *41*, *42*, *46*, *49*, *51–55*, *57–59*, *61*, *63*, *65*, *67*, *69*, *74*, *75*, *77*, *78*, *81*, *89*, *90*, *97*, *99*, *100*, *103*, *108*, *111*, *112*, *114*, *115*, *121–123*, *125*, *126*, *129*, *131*, *132*, *134*, *135*, *137*, *138*, *140*, *143–145*, *147*

geometa::GMLAbstractImplicitGeometry, *49*, *90*, *126*, *129*, *131*, *132*

geometa::GMLAbstractObject, *24*, *27*, *28*, *30*, *32–34*, *36–39*, *41*, *42*, *44*, *46*, *49–55*, *57–59*, *61*, *63*, *65*, *67*, *69*, *71*, *74*, *75*, *77*, *78*, *80–82*, *84*, *86*, *89*, *90*, *93–95*, *97–100*, *102*, *103*, *105*, *106*, *108*, *110–112*, *114*, *115*, *117*, *119*, *121–123*, *125*, *126*, *128*, *129*, *131*, *132*, *134*, *135*, *137*, *138*, *140*, *143–145*, *147*, *464*

geometa::GMLAbstractReferenceableGrid, *129*, *131*, *132*

geometa::GMLAbstractRing, *98*

geometa::GMLAbstractSingleCRS, *37*, *77*, *125*, *135*, *145*

geometa::GMLAbstractSingleOperation, *36*, *67*

geometa::GMLAbstractSurface, *123*

geometa::GMLAbstractTimeGeometricPrimitive, *138*, *140*

geometa::GMLAbstractTimeObject, *54*, *57*, *138*, *140*

geometa::GMLAbstractTimePrimitive, *54*, *138*, *140*

geometa::GMLCodeType, *174*, *574*, *692*

geometa::GMLDefinition, *24*, *27*, *30*, *36–38*, *51*, *52*, *58*, *59*, *61*, *63*, *65*, *67*, *69*, *74*, *77*, *78*, *81*, *89*, *97*, *111*, *112*, *114*,

115, *122*, *125*, *134*, *135*, *137*, *138*, *143–145*, *147*
geometa::GMLEnvelope, *84*
geometa::GMLGrid, *49*, *126*, *129*, *131*, *132*
geometa::GMLUnitDefinition, *59*, *65*, *78*
geometa::ISOAbstractAcquisitionInformation, *442*
geometa::ISOAbstractAggregate, *544*, *635*, *640*, *648*, *695*, *696*, *735*
geometa::ISOAbstractCarrierOfCharacteristics, *199*, *231*, *250–252*, *257*, *369*, *379*, *650*
geometa::ISOAbstractCatalogue, *171*, *273*, *372*
geometa::ISOAbstractCitation, *261*
geometa::ISOAbstractContentInformation, *299*, *376*, *437*, *454*, *472*, *578*
geometa::ISOAbstractGenericName, *574*, *692*
geometa::ISOAbstractLogicalConsistency, *281*, *351*, *399*, *746*
geometa::ISOAbstractMetaquality, *282*, *420*, *669*
geometa::ISOAbstractObject, *24*, *27*, *28*, *30*, *32–34*, *36–39*, *41*, *42*, *44*, *46*, *48–55*, *57–59*, *61–63*, *65*, *67*, *69*, *71*, *73–75*, *77*, *78*, *80–82*, *84*, *86*, *89*, *90*, *93–95*, *97–100*, *102*, *103*, *105*, *106*, *108*, *110–112*, *114*, *115*, *117*, *119*, *121–123*, *125*, *126*, *128*, *129*, *131*, *132*, *134*, *135*, *137*, *138*, *140*, *143–145*, *147*, *150–152*, *155*, *156*, *158*, *162–165*, *168–181*, *190*, *191*, *194*, *196–199*, *202–207*, *209–217*, *220*, *223–226*, *229–231*, *234*, *235*, *238*, *241–246*, *248–252*, *254*, *255*, *257–259*, *261*, *267*, *269–271*, *273*, *275*, *276*, *278*, *279*, *281–283*, *285*, *287*, *290*, *294*, *295*, *297–299*, *302*, *303*, *305*, *306*, *309*, *315*, *316*, *319*, *324*, *325*, *327*, *328*, *330–332*, *334*, *335*, *337*, *340*, *342–344*, *347*, *348*, *351*, *352*, *354*, *356*, *357*, *362*, *365*, *366*, *368*, *369*, *372*, *376*, *379*, *381*, *383*, *388*, *394–396*, *399*, *401–403*, *405*, *406*, *408–410*, *413*, *416*, *417*, *420–422*, *430*, *437*, *441*, *442*, *446*, *449*, *451*, *452*, *454*, *456*, *458*, *461*, *464*, *465*, *468–470*, *472*, *474*, *478*, *486*, *487*, *492*, *493*, *497*, *499*, *502*, *506*, *508*, *509*, *511*, *514*, *518*, *520*, *522*, *523*, *528*, *530–533*, *535–540*, *542*, *544–546*, *549*, *551*, *553*, *554*, *557–559*, *562*, *563*, *566*, *568*, *570*, *573–576*, *578–580*, *582*, *585*, *586*, *588*, *589*, *607*, *611*, *613*, *615*, *616*, *618–624*, *626*, *628*, *630*, *633*, *635–637*, *639–641*, *643*, *645*, *646*, *648–651*, *653*, *654*, *657*, *659–661*, *663*, *665*, *666*, *668–670*, *672*, *674*, *677–681*, *685*, *686*, *688*, *689*, *692*, *693*, *695*, *696*, *698*, *700–702*, *705*, *706*, *708*, *709*, *712*, *713*, *721*, *725*, *729*, *731*, *733*, *735*, *736*, *738–740*, *742–744*, *746–752*, *754*, *755*, *757*, *759*, *772*, *774–776*, *778*, *779*, *781*, *783*, *785*, *787*, *789*, *791–793*, *795*, *797*, *799*, *800*, *802*, *804*
geometa::ISOAbstractOnlineResource, *626*
geometa::ISOAbstractParameter, *645*
geometa::ISOAbstractParty, *540*, *633*
geometa::ISOAbstractPositionalAccuracy, *150*, *416*
geometa::ISOAbstractPropertyType, *231*, *369*, *379*, *650*
geometa::ISOAbstractQualityElement, *150*, *163*, *176*, *181*, *198*, *212–214*, *216*, *278*, *279*, *281*, *282*, *319*, *351*, *399*, *416*, *420*, *486*, *537*, *621*, *622*, *653*, *669*, *739*, *742*, *743*, *746*, *754*
geometa::ISOAbstractReferenceSystem, *663*
geometa::ISOAbstractResponsibility, *672*
geometa::ISOAbstractResult, *283*, *456*, *654*
geometa::ISOAbstractSpatialRepresentation, *410*, *413*, *417*, *469*, *470*, *705*, *757*
geometa::ISOAbstractTemporalAccuracy, *216*, *622*, *739*, *742*, *743*
geometa::ISOAbstractThematicAccuracy, *278*, *279*, *621*, *653*
geometa::ISOAbstractTypedDate, *328*
geometa::ISOBand, *449*
geometa::ISOBaseCharacterString, *573*

geometa::ISOBinding, *251, 252*
geometa::ISOCodeDefinition, *616*
geometa::ISOCodeListDictionary, *618*
geometa::ISOCodeListValue, *234*, *258, 259*, *269*, *294*, *297, 298*, *327*, *330, 331*, *342*, *347*, *356*, *409*, *451, 452*, *468*, *492*, *497*, *508, 509*, *531, 532*, *535, 536*, *538*, *545*, *551*, *557, 558*, *575*, *585, 586*, *623, 624*, *636*, *639*, *643*, *649*, *665*, *677–679*, *688*, *706*, *712*, *733*, *738*, *744*, *747*
geometa::ISOConstraints, *559*, *693*
geometa::ISOCoverageDescription, *437*, *454*, *472*
geometa::ISODataQualityAbstractElement, *150*, *163*, *176*, *181*, *198*, *212–214*, *216*, *278, 279*, *281, 282*, *351*, *399*, *416*, *420*, *486*, *537*, *621, 622*, *653*, *669*, *739*, *742, 743*, *746*, *754*
geometa::ISOEvaluationMethod, *223*, *315*, *402*, *539*, *680*
geometa::ISOFeatureType, *365, 366*, *368*, *383*, *388*
geometa::ISOFeatureType19115_3, *366*
geometa::ISOFeatureType19139, *368*
geometa::ISOGeographicExtent, *254*, *403*, *405*
geometa::ISOGeorectified, *469*
geometa::ISOGeoreferenceable, *470*
geometa::ISOGridSpatialRepresentation, *410*, *413*, *469, 470*
geometa::ISOIdentification, *305, 306*, *309*, *422*, *430*, *698*, *700, 701*, *713*, *721*, *725*
geometa::ISOIdentification19115_3, *306*, *700*, *721*
geometa::ISOIdentification19139, *309*, *701*, *725*
geometa::ISOImageDescription, *472*
geometa::ISOImageryAbstractGeolocationInformation, *465*
geometa::ISOImageryInstrument, *530*
geometa::ISOLength, *343*
geometa::ISOMeasure, *225*, *343*, *562*, *685*
geometa::ISOMetadata, *478*
geometa::ISOProcessStep, *514*
geometa::ISOProgress, *733*
geometa::ISOPropertyType, *231*, *369*, *379*
geometa::ISORangeDimension, *238*, *449*, *681*
geometa::ISOSeries, *640*, *648*, *695*
geometa::ISOServiceIdentification, *713*
geometa::ISOServiceIdentification19115_3, *721*
geometa::ISOServiceIdentification19139, *725*
geometa::ISOSpatialRepresentation, *410*, *413*, *417*, *469, 470*, *757*
geometa::ISOTemporalExtent, *708*
geometa::SWEAbstractDataComponent, *776*, *781*, *783*, *785*, *787*, *789*, *793*, *795*, *797*, *800*, *802*
geometa::SWEAbstractEncoding, *799*, *804*
geometa::SWEAbstractObject, *772*, *774*, *776*, *778, 779*, *781*, *783*, *785*, *787*, *789*, *791–793*, *795*, *797*, *799, 800*, *802*, *804*
geometa::SWEAbstractSimpleComponent, *781*, *783*, *785*, *787*, *793*, *795*, *797*, *800*, *802*
geometa::SWEAbstractSWE, *772*, *774*, *776*, *779*, *781*, *783*, *785*, *787*, *789*, *792, 793*, *795*, *797*, *799, 800*, *802*, *804*
geometa::SWEAbstractSWEIdentifiable, *772*, *776*, *781*, *783*, *785*, *787*, *789*, *793*, *795*, *797*, *800*, *802*
geometa_coverae *(*geometa_coverage*)*, 14
geometa_coverage, 14
geometaLogger, 15
getClassesInheriting, 16
getGeometaOption, 17
getGeometaOptions, 17
getIANAMimeTypes, 18
getISOClasses, *12*, 18
getISOCodelist, 19
getISOCodelists, 19
getISOInternalCodelists, 20
getISOMetadataNamespace, 20
getISOMetadataNamespaces, 21
getISOMetadataSchemaFile, 21
getISOMetadataSchemas, 22
getMappingFormats, *13*, 22
getMappings, *13*, 23
getMetadataStandard, 23
GMLAbstractCoordinateOperation, 24
GMLAbstractCoordinateSystem, 26, *77*

GMLAbstractCoverage, 28
GMLAbstractCRS, 30
GMLAbstractCurve, 31, *101*
GMLAbstractDiscreteCoverage, 32
GMLAbstractFeature, 34
GMLAbstractGeneralConversion, 35
GMLAbstractGeneralDerivedCRS, 37
GMLAbstractGeneralOperationParameter, 38
GMLAbstractGeneralParameterValue, 39, *68*
GMLAbstractGeometricAggregate, 40
GMLAbstractGeometricPrimitive, 41
GMLAbstractGeometry, *29*, 42, *254*
GMLAbstractGML, 44
GMLAbstractImplicitGeometry, 46
GMLAbstractObject, 48
GMLAbstractReferenceableGrid, 49
GMLAbstractRing, 50
GMLAbstractSingleCRS, *26*, 51, *64*, *77*
GMLAbstractSingleOperation, 52
GMLAbstractSurface, 53, *109*
GMLAbstractTimeGeometricPrimitive, 54
GMLAbstractTimeObject, *29*, 55
GMLAbstractTimePrimitive, 56
GMLAffineCS, 58
GMLBaseUnit, 59
GMLCartesianCS, 61, *89*
GMLCodeType, 62
GMLCompoundCRS, 63
GMLConventionalUnit, 65
GMLConversion, *37*, 67
GMLCoordinateSystemAxis, 69
GMLCOVAbstractCoverage, 71
GMLCOVExtension, 72
GMLCylindricalCS, 74
GMLDefinition, 75
GMLDerivedCRS, 76
GMLDerivedUnit, 78
GMLElement, 80, *112*
GMLEllipsoidalCS, 81, *89*
GMLEnvelope, *35*, 82
GMLEnvelopeWithTimePeriod, 84
GMLGeneralGridAxis, 86, *133*, *134*
GMLGeodeticCRS, 88, *125*
GMLGrid, 90
GMLGridCoverage, 92
GMLGridEnvelope, 94
GMLGridFunction, *33*, 95
GMLLinearCS, 97
GMLLinearRing, 98
GMLLineString, 99
GMLMultiCurve, 100
GMLMultiCurveCoverage, 102
GMLMultiPoint, 103
GMLMultiPointCoverage, 105
GMLMultiSolidCoverage, 106
GMLMultiSurface, 108
GMLMultiSurfaceCoverage, 109
GMLObliqueCartesianCS, 111
GMLOperationMethod, *68*, 112
GMLOperationParameter, *112*, *113*, 114, *116*, *118*
GMLOperationParameterGroup, *112*, *113*, 115, *116*
GMLParameterValue, 116, *120*
GMLParameterValueGroup, 119
GMLPoint, *104*, 121
GMLPolarCS, 122
GMLPolygon, 123
GMLProjectedCRS, 124
GMLRectifiedGrid, 126
GMLRectifiedGridCoverage, 128
GMLReferenceableGridByArray, 129
GMLReferenceableGridByTransformation, 131
GMLReferenceableGridByVectors, 132
GMLSphericalCS, *89*, 134
GMLTemporalCRS, 135
GMLTemporalCS, 136
GMLTimeCS, *136*, 137
GMLTimeInstant, *57*, 138, *741*
GMLTimePeriod, *57*, 140, *741*
GMLUnitDefinition, 142, *239*, *370*, *656*, *682*
GMLUserDefinedCS, 144
GMLVerticalCRS, 145
GMLVerticalCS, *145*, 146, *146*

INSPIREMetadataValidator, 147, *185*, *186*
integer, *38*, *113*, *115*, *118*, *341*, *359*, *394*, *408*, *418*, *439*, *466*, *584*, *668*, *683*, *684*
ISOAbsoluteExternalPositionalAccuracy, 150
ISOAbstractAcquisitionInformation, 151
ISOAbstractAggregate, 152, *154*, *326*

ISOAbstractApplicationSchemaInformation, 155
ISOAbstractCarrierOfCharacteristics, 156, *385*, *392*
ISOAbstractCatalogue, 158, *161*
ISOAbstractCitation, 161, *229, 230*, *547*
ISOAbstractCompleteness, 162
ISOAbstractConstraints, 163
ISOAbstractContentInformation, 164, *600*
ISOAbstractDataEvaluation, 165
ISOAbstractDataQuality, 168
ISOAbstractDistribution, 169
ISOAbstractExtent, 170, *547*, *687*
ISOAbstractFeatureCatalogue, 171, *578, 579*
ISOAbstractFeatureType, 172
ISOAbstractFormat, 173
ISOAbstractGenericName, 174, *394*
ISOAbstractLineageInformation, 175
ISOAbstractLogicalConsistency, 176
ISOAbstractMaintenanceInformation, 177
ISOAbstractMDContentInformation, 178
ISOAbstractMetadata, 179
ISOAbstractMetadataExtension, 180
ISOAbstractMetaquality, 181
ISOAbstractObject, *18*, 182
ISOAbstractOnlineResource, 190
ISOAbstractParameter, 191
ISOAbstractParty, 194, *554*
ISOAbstractPlatform, 196
ISOAbstractPortrayalCatalogueInformation, 197
ISOAbstractPositionalAccuracy, *25, 26*, 198
ISOAbstractPropertyType, 199
ISOAbstractQualityElement, 201
ISOAbstractReferenceSystem, 203, *466*
ISOAbstractResourceDescription, 204
ISOAbstractResponsibility, 205, *289*, *594*, *667*, *756*
ISOAbstractResult, 206, *322, 323*
ISOAbstractRSReferenceSystem, 207
ISOAbstractSpatialRepresentation, 209
ISOAbstractSpatialResolution, 210
ISOAbstractStandardOrderProcess, 211
ISOAbstractTemporalAccuracy, 212
ISOAbstractTemporalQuality, 213
ISOAbstractThematicAccuracy, 214
ISOAbstractTypedDate, 215
ISOAccuracyOfATimeMeasurement, 216
ISOAddress, 217, *291, 292*
ISOAggregateInformation, 220, *436*
ISOAggregationDerivation, 223
ISOAnchor, 224
ISOAngle, 225, *341*
ISOApplicationSchemaInformation, 226
ISOAssociatedResource, 228, *430*
ISOAssociation, 230
ISOAssociationRole, 231, *365–369*
ISOAssociationType, *221*, *229*, 234
ISOAttributeGroup, 235
ISOAttributes, 237
ISOBand, 238
ISOBaseBoolean, 241
ISOBaseCharacterString, 242
ISOBaseDate, 243
ISOBaseDateTime, *166*, *202*, 244, *336*, *354*
ISOBaseDecimal, 245
ISOBaseInteger, 246
ISOBaseReal, 247
ISOBinary, 248
ISOBinding, 250
ISOBoundAssociationRole, 251
ISOBoundFeatureAttribute, 252
ISOBoundingPolygon, 253
ISOBrowseGraphic, 255, *265, 266*, *428*, *434*
ISOCarrierOfCharacteristics, 257
ISOCellGeometry, 258, *419*
ISOCharacterSet, *160*, 259, *311*, *569*, *571*, *592*
ISOCitation, *112*, *167*, *221*, 260, *322*, *333, 334*, *355*, *374*, *378*, *415*, *424*, *427*, *432*, *447*, *475, 476*, *494*, *500*, *503*, *512*, *524*, *556*, *595, 596*, *613*, *642*, *662*, *704*, *730*
ISOCitationSeries, *264*, 267
ISOClassification, 268, *694*
ISOCodeDefinition, 270
ISOCodelist, 271, *274, 275*, *761*
ISOCodelistCatalogue, 273
ISOCodeListDictionary, 274, *274*
ISOCodeListValue, 276, *276*
ISOCompletenessCommission, 278
ISOCompletenessOmission, 279
ISOConceptualConsistency, 280
ISOConfidence, 282

ISOConformanceResult, 283
ISOConstraint, *157*, 285, *386*, *391, 392*
ISOConstraints, 286, *429*, *435*, *715*, *723*, *727*
ISOContact, *195*, 290, *675*
ISOCountry, 294, *569*, *571*
ISOCoupledResource, 295, *716*, *724*, *728*
ISOCouplingType, 296, *716*, *724*, *728*
ISOCoverageContentType, *236*, 298, *300*
ISOCoverageDescription, 299, *457*
ISOCTCodelistValue, *270*, 301
ISODataFile, 303, *457*
ISODataIdentification, *263*, 305, *717*, *724, 725*, *729*
ISODataIdentification19115_3, 306
ISODataIdentification19139, 308
ISODataInspection, 314
ISODataQuality, 316, *599*
ISODataQualityAbstractElement, *181, 182*, *317*, 319, *323*, *537*, *730*
ISODataQualityScope, 323
ISODataSet, *153*, 325
ISODatatype, 327, *359*
ISODate, 328, *572*, *594*
ISODateType, *329*, 330
ISODCPList, 331, *631*
ISODefinitionReference, *201*, 332, *387*, *392*, *567*
ISODefinitionSource, 333, *333*, *374*
ISODescriptiveResult, 335
ISODigitalTransferOptions, 336, *345, 346*, *349, 350*
ISODimension, 340, *418*
ISODimensionNameType, 341, *341*
ISODistance, *341*, 343, *486*, *671*
ISODistribution, 344, *599*
ISODistributionUnits, 346
ISODistributor, *345*, 348, *398, 399*
ISODomainConsistency, 351
ISOElementSequence, 352
ISOEvaluationMethod, *322*, 353
ISOEvaluationMethodType, *167*, *322*, *355*, 356
ISOExtendedElementInformation, 357, *608*
ISOExtent, *25*, *208*, *312*, 362, *427*, *489*, *673*, *704*, *715, 716*, *723*, *727, 728*
ISOFeatureAssociation, 365
ISOFeatureAssociation19115_3, 366
ISOFeatureAssociation19139, 368
ISOFeatureAttribute, 369
ISOFeatureCatalogue, *189*, *201*, 372, *387*, *391*
ISOFeatureCatalogueDescription, 376
ISOFeatureOperation, 379
ISOFeatureType, *157*, *233*, *252*, *373, 374*, 381, *543*
ISOFeatureType19115_3, 382
ISOFeatureType19139, 388
ISOFeatureTypeInfo, 393
ISOFileName, *304*, 395, *652*
ISOFormat, *304*, *339*, *345*, *349*, 396, *428*, *434, 435*, *458*, *652*
ISOFormatConsistency, 399
ISOFreeText, 400
ISOFullInspection, 402
ISOGeographicBoundingBox, 403
ISOGeographicDescription, 405
ISOGeographicExtent, *363*, 406, *708*
ISOGeometricObjects, 407, *758*
ISOGeometricObjectType, *408*, 409
ISOGeorectified, 410
ISOGeoreferenceable, 413
ISOGriddedDataPositionalAccuracy, 416
ISOGridSpatialRepresentation, 417
ISOHomogeneity, 420
ISOIdentification, 421, *598*
ISOIdentification19115_3, 422
ISOIdentification19139, 430
ISOImageDescription, 437
ISOImageryAbstractGeolocationInformation, 441, *471*
ISOImageryAcquisitionInformation, 442, *479*
ISOImageryAlgorithm, 446, *513*
ISOImageryBand, 448
ISOImageryBandDefinition, *449*, 451
ISOImageryContext, 452, *462*
ISOImageryCoverageDescription, 453
ISOImageryCoverageResult, 455
ISOImageryEnvironmentalRecord, *446*, 458
ISOImageryEvent, 460, *490*, *496*, *507*
ISOImageryGCP, 464, *466, 467*
ISOImageryGCPCollection, 465
ISOImageryGeometryType, 467, *499*
ISOImageryGeorectified, 469
ISOImageryGeoreferenceable, 470
ISOImageryImageDescription, 472

ISOImageryInstrument, *444*, *462, 463*, 474, *490*, *504*, *530*
ISOImageryMetadata, 478
ISOImageryNominalResolution, 485, *534*
ISOImageryObjective, *445*, *463*, 487, *496*
ISOImageryObjectiveType, *489*, 491
ISOImageryOperation, *444*, 493, *495*, *500*
ISOImageryOperationType, *495*, 497
ISOImageryPlan, *445*, *496*, 498, *526*
ISOImageryPlatform, *444*, *476*, *495, 496*, 502
ISOImageryPlatformPass, *462*, *490*, 506
ISOImageryPolarisationOrientation, *450*, 508
ISOImageryPriority, 509, *525*
ISOImageryProcessing, 510, *515*
ISOImageryProcessStep, 514
ISOImageryProcessStepReport, *516*, 518
ISOImageryRangeElementDescription, *454*, *473*, 520
ISOImageryRequestedDate, 522, *525*
ISOImageryRequirement, *445*, *500*, 523
ISOImageryRevision, 528, *548*
ISOImagerySensor, *477*, 529
ISOImagerySensorType, 531
ISOImagerySequence, *462*, 532
ISOImagerySource, *515*, 533
ISOImageryTransferFunctionType, *450*, 535
ISOImageryTrigger, *462*, 536
ISOImageryUsability, 537
ISOImagingCondition, *438*, 538
ISOIndirectEvaluation, 539
ISOIndividual, 540, *634*
ISOInheritanceRelation, *386*, *391*, 541
ISOInitiative, 543
ISOInitiativeType, *222*, *230*, 544
ISOInstrumentationEvent, 546
ISOInstrumentationEventList, *477*, *504, 505*, 549
ISOInstrumentationEventType, *548*, 551
ISOKeywordClass, 552
ISOKeywords, *429*, *435*, 554, *715*, *723*, *727*
ISOKeywordType, *555*, 557
ISOLanguage, *160*, *311*, 558, *569*, *571*, *592*
ISOLegalConstraints, 559
ISOLength, *341*, 562
ISOLineage, *317*, 563, *599*
ISOListedValue, *371*, 565
ISOLocale, *160, 161*, *307*, *377*, 567, *571*, *592*, *596, 597*
ISOLocaleContainer, 570
ISOLocalisedCharacterString, *401*, 573
ISOLocalName, *200*, *304*, *385*, *390*, 574, *714*, *722*, *726*
ISOMaintenanceFrequency, 575, *577*
ISOMaintenanceInformation, *428*, *433, 434*, 576, *600*
ISOMDFeatureCatalogue, 578
ISOMeasure, *341*, 579
ISOMeasureReference, *321*, 580
ISOMedium, *338, 339*, *398*, 582
ISOMediumFormat, *584*, 585
ISOMediumName, *583*, 586
ISOMemberName, 587, *658*
ISOMetadata, *13*, *149*, *153, 154*, *189*, *326*, 589
ISOMetadataExtensionInformation, *598*, 607
ISOMetadataNamespace, 609
ISOMetadataScope, *593, 594*, 611
ISOMetaIdentifier, *221*, *263*, *321*, *406*, *427*, *438, 439*, *462*, *476*, *488*, *494*, *503*, *507*, *511*, *525*, *534*, *581*, 612, *664*
ISOMimeFileType, *304*, 615, *652*
ISOMLCodeDefinition, 616
ISOMLCodeListDictionary, 617
ISOMultiplicity, 618
ISOMultiplicityRange, 620
ISONonQuantitativeAttributeAccuracy, 621
ISONonQuantitativeAttributeCorrectness, 622
ISOObligation, *359*, 623
ISOOnLineFunction, 624, *627*
ISOOnlineResource, *265*, *292*, *338*, *596*, *608*, 625, *632*
ISOOperationChainMetadata, 628
ISOOperationMetadata, *629*, 630, *632, 633*, *716*, *724*, *728*
ISOOrganisation, 633
ISOOtherAggregate, 635
ISOParameterDirection, *192*, 636
ISOPeriodDuration, *426*, 637
ISOPixelOrientation, *412*, 639
ISOPlatform, 640
ISOPortrayalCatalogueReference, *600*,

641
ISOPresentationForm, *264*, 643
ISOProcessParameter, 644
ISOProcessStep, *564*, 645, *704*
ISOProductionSeries, 648
ISOProgress, *425*, *433*, 649, *734*
ISOPropertyType, *251*, 650
ISOQualityResultFile, *457*, 651
ISOQuantitativeAttributeAccuracy, 653
ISOQuantitativeResult, 654
ISORangeDimension, *236*, *300*, 657
ISORecord, *193*, *415*, *477*, *497*, *504*, *521*, *656*, 659, *683*, *733*
ISORecordType, *193*, *300*, *477*, *497*, *504*, *656*, 660, *683*, *732*
ISOReferenceIdentifier, *208*, 661, *664*
ISOReferenceSystem, *597, 598*, 663, *703*
ISOReferenceSystemType, 664, *664*
ISOReleasability, *289*, 666
ISORepresentativeFraction, 668, *671*, *703*
ISORepresentativity, 669
ISOResolution, *310*, *426*, 670
ISOResponsibility, *264*, *373*, *425*, *572*, 672
ISOResponsibleParty, *264*, *349*, *361*, *373*, *433*, *504*, *525*, *572*, *594*, *647*, 674, *756*
ISORestriction, *560, 561*, *667*, 676
ISORole, *673*, *675*, 678
ISORoleType, *232*, 679
ISOSampleBasedInspection, 680
ISOSampleDimension, 681
ISOScale, *341*, 684
ISOScope, *284*, *288*, *336*, *443*, *457*, *655*, 686
ISOScopeCode, *324*, *593*, *687*, 688
ISOScopeDescription, *687*, 689
ISOScopedName, *304*, 692, *714*, *722*, *726*
ISOSecurityConstraints, 693
ISOSensor, 695
ISOSeries, 696
ISOServiceIdentification, 698
ISOServiceIdentification19115_3, 700
ISOServiceIdentification19139, 701
ISOSource, *193, 194*, *564*, *647*, 702
ISOSpatialRepresentation, *457*, *597*, 705
ISOSpatialRepresentationType, *310*, *425, 426*, *457*, 706
ISOSpatialTemporalExtent, 707
ISOSRVParameter, *632*, 709
ISOSRVParameterDirection, *710*, 712
ISOSRVServiceIdentification, 713
ISOSRVServiceIdentification19115_3, 721
ISOSRVServiceIdentification19139, 725
ISOStandaloneQualityReportInformation, *317*, 729
ISOStandardOrderProcess, *349*, *715*, *723*, *727*, 731
ISOStatus, *495*, *500*, 733
ISOStereoMate, 734
ISOTelephone, *291*, 736
ISOTelephoneType, *737*, 738
ISOTemporalConsistency, 739
ISOTemporalExtent, *364*, 740
ISOTemporalValidity, 742
ISOThematicClassificationCorrectness, 743
ISOTopicCategory, *312*, *426, 427*, 744
ISOTopologicalConsistency, 745
ISOTopologyLevel, 747, *758*
ISOTypeName, *253*, *711*, 748
ISOUnlimitedInteger, 749
ISOUomIdentifier, *370*, 750
ISOURI, *553*, 751
ISOURL, *626*, 752
ISOUsabilityElement, 754
ISOUsage, *429*, *436*, 755
ISOVectorSpatialRepresentation, 757
ISOVerticalExtent, *364*, 759

list, *133*, *149*, *159, 160*, *200, 201*, *272*, *610*
logical, *118*, *187*, *193*, *232, 233*, *284*, *377, 378*, *384*, *390*, *411*, *414*, *419*, *439, 440*, *543*, *711*

matrix, *83*, *85*, *91*, *94*, *98*, *121*, *404*, *411, 412*, *464*, *470*

numeric, *117*, *139*, *141*, *239, 240*, *404*, *438, 439*, *450*, *459, 460*, *583*, *671*, *682, 683*

parseISOCodelists, 761
pivot_converter, 761
pivot_format, 762
POSIXct, *263*, *284*, *322*, *329*, *457*, *462*, *523*, *526*, *647*, *655*, *732*, *756*
POSIXct-class, *85, 86*, *141*

POSIXt, *139*, *329*

R6Class, *15*, *24*, *27, 28*, *30–34*, *36–42*, *44*, *46*, *48–59*, *61–63*, *65*, *67*, *69*, *71, 72*, *74–78*, *80–82*, *84*, *86*, *88*, *90*, *92*, *94, 95*, *97–100*, *102, 103*, *105, 106*, *108–112*, *114–116*, *119*, *121–126*, *128, 129*, *131, 132*, *134–138*, *140*, *142–147*, *150–152*, *155, 156*, *158*, *161–165*, *168–182*, *187*, *189–191*, *194*, *196–199*, *201*, *203–207*, *209–217*, *220*, *223–226*, *228*, *230, 231*, *234, 235*, *237, 238*, *241–253*, *255*, *257–261*, *267–271*, *273, 274*, *276*, *278–283*, *285–287*, *290*, *294–299*, *301*, *303*, *305, 306*, *308, 309*, *315, 316*, *319*, *323*, *325*, *327, 328*, *330–336*, *340*, *342–344*, *346–348*, *351–354*, *356, 357*, *362*, *365, 366*, *368, 369*, *372*, *376*, *379*, *381*, *383*, *388*, *393–396*, *399*, *401–403*, *405–407*, *409, 410*, *413*, *416, 417*, *420–422*, *430*, *437*, *441, 442*, *446*, *448, 449*, *451–454*, *456*, *458*, *460, 461*, *464, 465*, *467*, *469, 470*, *472*, *474*, *478*, *485*, *487*, *492, 493*, *497–499*, *502*, *506*, *508–511*, *514*, *518*, *520*, *522, 523*, *528, 529*, *531–533*, *535–544*, *546*, *549*, *551–554*, *557–559*, *562, 563*, *565*, *567, 568*, *570*, *573–576*, *578–580*, *582*, *585, 586*, *588, 589*, *607*, *609*, *611–613*, *615–626*, *628*, *630*, *633*, *635–637*, *639–641*, *643–645*, *648–651*, *653, 654*, *657*, *659–661*, *663, 664*, *666*, *668–670*, *672*, *674*, *676*, *678–681*, *685, 686*, *688, 689*, *692, 693*, *695, 696*, *698*, *700–702*, *705–709*, *712, 713*, *721*, *725*, *729*, *731*, *733*, *735, 736*, *738–740*, *742–752*, *754, 755*, *757*, *759*, *761, 762*, *772*, *774–776*, *778, 779*, *781*, *783*, *785*, *787*, *789–793*, *795*, *797*, *799, 800*, *802*, *804*

readISO, 764

readISO19139, *12*, 764

registerISOCodelist, 765

registerISOMetadataNamespace, 766

registerISOMetadataSchema, 767

registerMappingFormat, 767

registerMappings, 768

setGeometaOption, 768

setIANAMimeTypes, 769

setISOCodelists, 769

setISOMetadataNamespaces, 770

setISOMetadataSchemas, 770

setMappingFormats, 771

setMetadataStandard, 771

SWEAbstractDataComponent, 772, *772*

SWEAbstractEncoding, 774

SWEAbstractObject, 775, *775*

SWEAbstractSimpleComponent, 776, *777*

SWEAbstractSWE, 778, *778*

SWEAbstractSWEIdentifiable, 779

SWECategory, 781, *782*

SWECategoryRange, 783, *784*

SWECount, 785, *786*

SWECountRange, 787, *787*

SWEDataRecord, 789, *789*

SWEElement, 790

SWENilValues, 792

SWEQuantity, 793, *794*

SWEQuantityRange, 795, *796*

SWEText, 797, *798*

SWETextEncoding, 799

SWETime, 800, *801*

SWETimeRange, 802, *803*

SWEXMLEncoding, 804

vector, *87*, *127*

XMLInternalNode-class, *25*, *27*, *29, 30*, *33*, *35*, *40*, *43*, *45*, *47, 48*, *50*, *55–57*, *60*, *62*, *64, 65*, *70*, *72, 73*, *75*, *79–81*, *83*, *85*, *87*, *91*, *93*, *96*, *98*, *100, 101*, *103, 104*, *106–108*, *110*, *117*, *120, 121*, *124*, *127, 128*, *130, 131*, *133*, *139*, *141*, *143*, *149*, *152, 153*, *155, 156*, *159*, *162*, *164–166*, *168–175*, *177–181*, *184–186*, *190*, *192*, *195*, *197, 198*, *200*, *202–207*, *209–211*, *213*, *215*, *218*, *221*, *224*, *226, 227*, *229*, *231, 232*, *234*, *236*, *239*, *241–243*, *245–249*, *254*, *256–258*, *260*, *262*, *267*, *269, 270*, *272–275*, *277*, *282*, *284*, *286, 287*, *291*, *294*, *296–298*, *300*, *302*, *304*, *306, 307*,

310, *315*, *316*, *320*, *324*, *325*, *327*,
329–331, *333–335*, *337*, *340*,
342–344, *347*, *349*, *353*, *354*, *356*,
358, *363*, *365*, *367*, *368*, *370*, *373*,
377, *380*, *381*, *384*, *389*, *394*, *395*,
397, *401*, *402*, *404*, *406–409*, *411*,
414, *418*, *420*, *421*, *424*, *432*, *438*,
442, *443*, *447*, *449*, *452–454*, *457*,
459, *461*, *464*, *466*, *468*, *469*, *471*,
472, *475*, *479*, *486*, *488*, *492*, *494*,
498, *499*, *503*, *507*, *509–511*, *515*,
518, *520*, *522*, *524*, *528*, *530–532*,
534–536, *538–541*, *544*, *545*, *547*,
550, *552*, *553*, *555*, *557*, *559*, *560*,
562, *563*, *566*, *568*, *571*, *573–575*,
577, *578*, *580*, *581*, *583*, *585*, *587*,
588, *592*, *607*, *611*, *613*, *615*,
617–620, *624–626*, *628*, *631*,
634–636, *638–640*, *642*, *644–646*,
648, *649*, *651*, *652*, *655*, *657*, *659*,
660, *662*, *663*, *665*, *666*, *668*,
670–672, *674*, *677–679*, *681*, *682*,
685, *686*, *688*, *690*, *692*, *693*, *695*,
697, *698*, *701–703*, *706–708*, *710*,
712, *714*, *722*, *726*, *730*, *732*,
734–736, *738*, *741*, *745*, *747*, *748*,
750–755, *757*, *759*, *772*, *774*, *775*,
777, *778*, *780*, *782*, *784*, *786*, *788*,
789, *791*, *793*, *794*, *796*, *798*, *799*,
801, *803*, *805*