

OGC® DOCUMENT: 18-053R2

External identifier of this OGC® document: <http://www.opengis.net/docs/CS/3DTiles/1.0>



Open
Geospatial
Consortium

OGC DOCUMENT TITLE

COMMUNITY STANDARD

APPROVED

Version: 1.0

Submission Date: 2018-06-04

Approval Date: 2018-12-14

Publication Date: 2019-01-31

Editor: Patrick Cozzi, Sean Lilley

Notice: This document is an OGC Member approved international standard. This document is available on a royalty free, non-discriminatory basis. Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

License Agreement

Use of this document is subject to the license agreement at <https://www.ogc.org/license>

Copyright notice

Copyright © 2025 Open Geospatial Consortium

To obtain additional rights of use, visit <https://www.ogc.org/legal>

Note

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The Open Geospatial Consortium shall not be held responsible for identifying any or all such patent rights.

Recipients of this document are requested to submit, with their comments, notification of any relevant patent claims or other intellectual property rights of which they may be aware that might be infringed by any implementation of the standard set forth in this document, and to provide supporting documentation.

CONTENTS

I. ABSTRACT	xxii
II. KEYWORDS	xxii
III. PREFACE	xxiii
IV. SECURITY CONSIDERATIONS	xxiv
V. SUBMITTERS	xxiv
VI. SOURCE OF THE CONTENT FOR THIS OGC DOCUMENT	xxiv
VII. VALIDITY OF CONTENT	xxiv
VIII. FUTURE WORK	xxiv
IX. CONTRIBUTORS	xxv
1. SCOPE	2
2. CONFORMANCE	4
3. NORMATIVE REFERENCES	6
4. TERMS AND DEFINITIONS	8
5. CONVENTIONS	10
5.1. Identifiers	10
5.2. Other conventions	10
6. CORE	12
6.1. Class: geosrs:CoordinateSystem	12
6.2. Class: geosrs:CartesianCoordinateSystem	12
6.3. Class: geosrs:EllipsoidalCoordinateSystem	12
6.4. Class: geosrs:LinearCoordinateSystem	13
6.5. Class: geosrs:OrdinalCoordinateSystem	13
6.6. Class: geosrs:ParametricCoordinateSystem	14
6.7. Class: geosrs:PolarCoordinateSystem	14
6.8. Class: geosrs:SphericalCoordinateSystem	14
6.9. Class: geosrs:VerticalCoordinateSystem	15
6.10. Class: geosrs:CoordinateSystemAxis	15

6.11. Class: geosrs:CRS	15
6.12. Class: geosrs:EngineeringCRS	16
6.13. Class: geosrs:GeodeticCRS	16
6.14. Class: geosrs:GeographicCRS	17
6.15. Class: geosrs:ProjectedCRS	17
6.16. Class: geosrs:ReferenceSystem	18
6.17. Class: geosrs:SingleCRS	18
6.18. Class: geosrs:SpatialReferenceSystem	18
6.19. Class: geosrs:CoordinateOperation	19
6.20. Class: geosrs:SingleOperation	19
6.21. Class: geosrs:Transformation	20
6.22. Class: geosrs:Conversion	20
6.23. Class: geosrs:OperationMethod	20
6.24. Class: geosrs:OperationParameter	21
6.25. Class: geosrs:OperationParameterValue	21
6.26. Class: geosrs:Datum	21
6.27. Class: geosrs:GeodeticDatum	22
6.28. Class: geosrs:PrimeMeridian	22
6.29. Class: geosrs:Ellipsoid	22
6.30. Class: geosrs:VerticalDatum	23
6.31. Property: geosrs:semiMajorAxis	23
6.32. Property: geosrs:semiMinorAxis	24
6.33. Property: geosrs:axis	24
6.34. Property: geosrs:baseCRS	24
6.35. Property: geosrs:coordinateSystem	25
6.36. Property: geosrs:datum	25
6.37. Property: geosrs:domainOfValidity	26
6.38. Property: geosrs:ellipsoid	26
6.39. Property: geosrs:sourceCRS	26
6.40. Property: geosrs:targetCRS	27
 7. COORDINATE OPERATION MODULE	 29
7.1. Property: geosrs:derivingConversion	29
7.2. Property: geosrs:method	29
7.3. Property: geosrs:parameter	29
 8. COORDINATE SYSTEM MODULE	 32
8.1. Class: geosrs:1DCoordinateSystem	32
8.2. Class: geosrs:3DCoordinateSystem	32
8.3. Class: geosrs:AffineCoordinateSystem	32
8.4. Class: geosrs:BarycentricCoordinateSystem	33
8.5. Class: geosrs:CelestialCoordinateSystem	33
8.6. Class: geosrs:ConicalCoordinateSystem	33
8.7. Class: geosrs:CurvilinearCoordinateSystem	34
8.8. Class: geosrs:CylindricalCoordinateSystem	34
8.9. Class: geosrs:EclipticCoordinateSystem	34
8.10. Class: geosrs:EngineeringCoordinateSystem	35

8.11. Class: geosrs:EquatorialCoordinateSystem	35
8.12. Class: geosrs:GalacticCoordinateSystem	36
8.13. Class: geosrs:GeodeticCoordinateSystem	36
8.14. Class: geosrs:GeographicalCoordinateSystem	36
8.15. Class: geosrs:GridCoordinateSystem	37
8.16. Class: geosrs:HexagonalCoordinateSystem	37
8.17. Class: geosrs:HorizontalCoordinateSystem	37
8.18. Class: geosrs:LocalCoordinateSystem	38
8.19. Class: geosrs:ObliqueCoordinateSystem	38
8.20. Class: geosrs:OrthogonalCoordinateSystem	38
8.21. Class: geosrs:PerifocalCoordinateSystem	39
8.22. Class: geosrs:PlanarCoordinateSystem	39
8.23. Class: geosrs:SkewCoordinateSystem	39
8.24. Class: geosrs:DateTimeTemporalCoordinateSystem	40
8.25. Class: geosrs:TemporalCountCoordinateSystem	40
8.26. Class: geosrs:TemporalCoordinateSystem	40
8.27. Class: geosrs:TemporalMeasureCoordinateSystem	41
8.28. Class: geosrs:SuperGalacticCS	41
8.29. Property: geosrs:axisDirection	41
8.30. Property: geosrs:cylindricalCS	42
 9. DATUM MODULE	 44
9.1. Class: geosrs:DynamicGeodeticReferenceFrame	44
9.2. Class: geosrs:TriaxialEllipsoid	44
9.3. Class: geosrs:DynamicVerticalDatum	44
9.4. Class: geosrs:ParametricDatum	45
9.5. Class: geosrs:DefiningParameter	45
9.6. Class: geosrs:EngineeringDatum	45
9.7. Class: geosrs:TemporalDatum	46
9.8. Class: geosrs:DatumEnsemble	46
9.9. Property: geosrs:inverseFlattening	47
9.10. Property: geosrs:primeMeridian	47
 10. SRS APPLICATION MODULE	 49
 11. PROJECTIONS MODULE	 51
11.1. Class: geosrs:A4Projection	51
11.2. Class: geosrs:AdamsProjection	51
11.3. Class: geosrs:AdamsWorldInASquareIIProjection	51
11.4. Class: geosrs:AdamsWorldInASquareIProjection	52
11.5. Class: geosrs:AiryProjection	52
11.6. Class: geosrs:AitoffObliqueProjection	52
11.7. Class: geosrs:AitoffProjection	52
11.8. Class: geosrs:AlbersEqualAreaProjection	53
11.9. Class: geosrs:AmericanPolyconicProjection	53
11.10. Class: geosrs:ApianGlobularIProjection	53
11.11. Class: geosrs:ApianIIProjection	54

11.12. Class: geosrs:ArchaicProjection	54
11.13. Class: geosrs:ArdenCloseProjection	54
11.14. Class: geosrs:ArmadilloProjection	54
11.15. Class: geosrs:AtlantisProjection	55
11.16. Class: geosrs:AugustEpicycloidalProjection	55
11.17. Class: geosrs:AuthaGraphProjection	55
11.18. Class: geosrs:AzimuthalEqualAreaProjection	55
11.19. Class: geosrs:AzimuthalEquidistantProjection	56
11.20. Class: geosrs:AzimuthalProjection	56
11.21. Class: geosrs:BSAMCylindricalProjection	56
11.22. Class: geosrs:BaconGlobularProjection	57
11.23. Class: geosrs:BakerDinomicProjection	57
11.24. Class: geosrs:BalthasartProjection	57
11.25. Class: geosrs:BaranyillIProjection	57
11.26. Class: geosrs:BaranyillIProjection	58
11.27. Class: geosrs:BaranyillIProjection	58
11.28. Class: geosrs:BaranyillIProjection	58
11.29. Class: geosrs:BartholomewProjection	59
11.30. Class: geosrs:BehrmannProjection	59
11.31. Class: geosrs:BerghausStarProjection	59
11.32. Class: geosrs:BertinProjection	59
11.33. Class: geosrs:BipolarObliqueConicConformalProjection	60
11.34. Class: geosrs:BoggsEumorphicProjection	60
11.35. Class: geosrs:BonneProjection	60
11.36. Class: geosrs:BottomleyProjection	61
11.37. Class: geosrs:BraunPerspectiveProjection	61
11.38. Class: geosrs:BraunStereographicProjection	61
11.39. Class: geosrs:BreusingGeometricProjection	61
11.40. Class: geosrs:BreusingHarmonicProjection	62
11.41. Class: geosrs:BriesemeisterProjection	62
11.42. Class: geosrs:BromleyProjection	62
11.43. Class: geosrs:CabotProjection	62
11.44. Class: geosrs:CahillKeyesProjection	63
11.45. Class: geosrs:CassiniProjection	63
11.46. Class: geosrs:CentralConicProjection	63
11.47. Class: geosrs:CentralCylindricalProjection	64
11.48. Class: geosrs:ChamberlinTrimetricProjection	64
11.49. Class: geosrs:CiricIProjection	64
11.50. Class: geosrs:CollignonButterflyProjection	64
11.51. Class: geosrs:CollignonProjection	65
11.52. Class: geosrs:ColombiaUrbanProjection	65
11.53. Class: geosrs:CompactMillerProjection	65
11.54. Class: geosrs:CompromiseProjection	65
11.55. Class: geosrs:ConformalProjection	66
11.56. Class: geosrs:ConicalProjection	66
11.57. Class: geosrs:CordiformProjection	66
11.58. Class: geosrs:CoxConformalProjection	66

11.59. Class: geosrs:CraigRetroazimuthalProjection	67
11.60. Class: geosrs:CrasterParabolicProjection	67
11.61. Class: geosrs:CupolaProjection	67
11.62. Class: geosrs:CylindricalEqualArea	67
11.63. Class: geosrs:CylindricalProjection	68
11.64. Class: geosrs:CylindricalStereographicProjection	68
11.65. Class: geosrs:DeakinMinimumErrorProjection	68
11.66. Class: geosrs:DedistortProjection	68
11.67. Class: geosrs:DenoyerSemiEllipticalProjection	69
11.68. Class: geosrs:DietrichKitadaProjection	69
11.69. Class: geosrs:DodecahedralProjection	69
11.70. Class: geosrs:DymaxionProjection	70
11.71. Class: geosrs:Eckert1Projection	70
11.72. Class: geosrs:Eckert2Projection	70
11.73. Class: geosrs:Eckert3Projection	70
11.74. Class: geosrs:Eckert4Projection	71
11.75. Class: geosrs:Eckert5Projection	71
11.76. Class: geosrs:Eckert6Projection	71
11.77. Class: geosrs:EisenlohrProjection	71
11.78. Class: geosrs:EqualAreaProjection	72
11.79. Class: geosrs:EqualEarthProjection	72
11.80. Class: geosrs:EquallySpacedParallelsProjection	72
11.81. Class: geosrs:EquidistantConicProjection	72
11.82. Class: geosrs:EquidistantCylindricalProjection	73
11.83. Class: geosrs:EquidistantProjection	73
11.84. Class: geosrs:EquirectangularProjection	73
11.85. Class: geosrs:FaheyProjection	74
11.86. Class: geosrs:FairgrieveProjection	74
11.87. Class: geosrs:FoucautProjection	74
11.88. Class: geosrs:FoucautSinusoidalProjection	74
11.89. Class: geosrs:FournierGlobularIProjection	75
11.90. Class: geosrs:FournierIIProjection	75
11.91. Class: geosrs:FranculaIProjection	75
11.92. Class: geosrs:FranculaIVProjection	75
11.93. Class: geosrs:FranculaIXProjection	76
11.94. Class: geosrs:FranculaVIIIProjection	76
11.95. Class: geosrs:FranculaVProjection	76
11.96. Class: geosrs:FranculaXIIIProjection	77
11.97. Class: geosrs:FranculaXIIProjection	77
11.98. Class: geosrs:FranculaXIVProjection	77
11.99. Class: geosrs:GS50Projection	77
11.100. Class: geosrs:GallStereographicProjection	78
11.101. Class: geosrs:GallPetersProjection	78
11.102. Class: geosrs:GallStereographicProjection	78
11.103. Class: geosrs:GaussKruegerProjection	78
11.104. Class: geosrs:GeneralVerticalPerspectiveProjection	79
11.105. Class: geosrs:GilbertTwoWorldPerspectiveProjection	79

11.106. Class: geosrs:GingeryProjection	79
11.107. Class: geosrs:GinzburgIIProjection	80
11.108. Class: geosrs:GinzburgIProjection	80
11.109. Class: geosrs:GinzburgIVProjection	80
11.110. Class: geosrs:GinzburgIXProjection	80
11.111. Class: geosrs:GinzburgVIIIProjection	81
11.112. Class: geosrs:GinzburgVIPProjection	81
11.113. Class: geosrs:GinzburgVProjection	81
11.114. Class: geosrs:GlobularProjection	81
11.115. Class: geosrs:GnomonicButterflyProjection	82
11.116. Class: geosrs:GnomonicCubedSphereProjection	82
11.117. Class: geosrs:GnomonicIcosahedronProjection	82
11.118. Class: geosrs:GnomonicProjection	83
11.119. Class: geosrs:GoodeHomolosineProjection	83
11.120. Class: geosrs:GottWagnerProjection	83
11.121. Class: geosrs:GringortenProjection	83
11.122. Class: geosrs:GringortenQuincuncialProjection	84
11.123. Class: geosrs:GuyouProjection	84
11.124. Class: geosrs:HEALPixProjection	84
11.125. Class: geosrs:HammerProjection	84
11.126. Class: geosrs:HammerRetroazimuthalProjection	85
11.127. Class: geosrs:HamusoidalProjection	85
11.128. Class: geosrs:HatanoAsymmetricalEqualAreaProjection	85
11.129. Class: geosrs:HerschelConformalConicProjection	86
11.130. Class: geosrs:HillEucyclicProjection	86
11.131. Class: geosrs:HoboDyerProjection	86
11.132. Class: geosrs:HufnagelIIIProjection	86
11.133. Class: geosrs:HufnagelIIProjection	87
11.134. Class: geosrs:HufnagelIProjection	87
11.135. Class: geosrs:HufnagelIVProjection	87
11.136. Class: geosrs:HufnagelIXProjection	87
11.137. Class: geosrs:HufnagelProjection	87
11.138. Class: geosrs:HufnagelVIIIProjection	88
11.139. Class: geosrs:HufnagelVIIProjection	88
11.140. Class: geosrs:HufnagelVIPProjection	88
11.141. Class: geosrs:HufnagelVProjection	88
11.142. Class: geosrs:HufnagelXIIProjection	89
11.143. Class: geosrs:HufnagelXIProjection	89
11.144. Class: geosrs:HufnagelXProjection	89
11.145. Class: geosrs:IcosahedralProjection	89
11.146. Class: geosrs:InterruptedGoodeHomolosineOceanicViewProjection	90
11.147. Class: geosrs:InterruptedGoodeHomolosineProjection	90
11.148. Class: geosrs:InterruptedQuarticAuthalicProjection	90
11.149. Class: geosrs:JamesAzimuthalProjection	90
11.150. Class: geosrs:KamenetskiyIProjection	91
11.151. Class: geosrs:KarchenkoShabanovaProjection	91
11.152. Class: geosrs:Kavrayskiy7Projection	91

11.153. Class: geosrs:KissProjection	92
11.154. Class: geosrs:Krovak	92
11.155. Class: geosrs:LaHireProjection	92
11.156. Class: geosrs:LabordeProjection	92
11.157. Class: geosrs:LagrangeProjection	93
11.158. Class: geosrs:LambertAzimuthalEqualArea	93
11.159. Class: geosrs:LambertConformalConicProjection	93
11.160. Class: geosrs:LambertCylindricalEqualAreaProjection	94
11.161. Class: geosrs:LarriveeProjection	94
11.162. Class: geosrs:LaskowskiProjection	94
11.163. Class: geosrs:LatLonProjection	94
11.164. Class: geosrs:LeeProjection	95
11.165. Class: geosrs:LenticularProjection	95
11.166. Class: geosrs:LittrowProjection	95
11.167. Class: geosrs:LonLatProjection	95
11.168. Class: geosrs:LorgnaProjection	96
11.169. Class: geosrs:LowryProjection	96
11.170. Class: geosrs:LoximuthalProjection	96
11.171. Class: geosrs:MaurerNo73Projection	96
11.172. Class: geosrs:MayrProjection	97
11.173. Class: geosrs:McBrydeThomasFlatPolarParabolicProjection	97
11.174. Class: geosrs:McBrydeThomasFlatPolarQuarticProjection	97
11.175. Class: geosrs:McBrydeThomasFlatPolarSinusoidalProjection	98
11.176. Class: geosrs:McBrydeThomasIIProjection	98
11.177. Class: geosrs:McBrydeThomasIProjection	98
11.178. Class: geosrs:MercatorProjection	98
11.179. Class: geosrs:MillerOblatedStereographicProjection	99
11.180. Class: geosrs:MillerProjection	99
11.181. Class: geosrs:MinimumErrorProjection	99
11.182. Class: geosrs:MollweideProjection	100
11.183. Class: geosrs:MurdochIIIProjection	100
11.184. Class: geosrs:MurdochIIProjection	100
11.185. Class: geosrs:MurdochIProjection	100
11.186. Class: geosrs:MyrahedalProjection	101
11.187. Class: geosrs:NaturalEarth2Projection	101
11.188. Class: geosrs:NaturalEarthProjection	101
11.189. Class: geosrs:NellHammerProjection	102
11.190. Class: geosrs:NellProjection	102
11.191. Class: geosrs:NicolosiGlobularProjection	102
11.192. Class: geosrs:NordicProjection	102
11.193. Class: geosrs:ObliqueCylindricalEqualAreaProjection	103
11.194. Class: geosrs:ObliqueMercatorProjection	103
11.195. Class: geosrs:ObliquePlateCarreeProjection	103
11.196. Class: geosrs:ObliqueProjection	104
11.197. Class: geosrs:ObliqueStereographicProjection	104
11.198. Class: geosrs:OctantProjection	104
11.199. Class: geosrs:OrteliusOvalProjection	104

11.200. Class: geosrs:OrthographicProjection	105
11.201. Class: geosrs:OvalProjection	105
11.202. Class: geosrs:PattersonCylindricalProjection	105
11.203. Class: geosrs:PavlovProjection	105
11.204. Class: geosrs:PeirceQuincuncialProjection	106
11.205. Class: geosrs:PerspectiveConicProjection	106
11.206. Class: geosrs:PerspectiveProjection	106
11.207. Class: geosrs:PetermannStarProjection	106
11.208. Class: geosrs:PlateCarreeProjection	107
11.209. Class: geosrs:PoleLineProjection	107
11.210. Class: geosrs:PolyconicProjection	107
11.211. Class: geosrs:PolyhedralProjection	107
11.212. Class: geosrs:Projection	108
11.213. Class: geosrs:PseudoAzimuthalProjection	108
11.214. Class: geosrs:PseudoConicalProjection	108
11.215. Class: geosrs:PseudoCylindricalProjection	108
11.216. Class: geosrs:PseudoOrthographicProjection	109
11.217. Class: geosrs:PtolemyIIProjection	109
11.218. Class: geosrs:PtolemyIProjection	109
11.219. Class: geosrs:PutninsP1Projection	109
11.220. Class: geosrs:PutninsP2Projection	110
11.221. Class: geosrs:PutninsP3Projection	110
11.222. Class: geosrs:PutninsP5Projection	110
11.223. Class: geosrs:PutninsP6Projection	110
11.224. Class: geosrs:QuadrilateralizedSphericalCubeProjection	111
11.225. Class: geosrs:QuarticAuthalicProjection	111
11.226. Class: geosrs:RectangularPolyconicProjection	111
11.227. Class: geosrs:RetroazimuthalProjection	112
11.228. Class: geosrs:RobinsonProjection	112
11.229. Class: geosrs:RoussilheProjection	112
11.230. Class: geosrs:SchjernerIProjection	112
11.231. Class: geosrs:SinusoidalProjection	113
11.232. Class: geosrs:SmythEqualSurfaceProjection	113
11.233. Class: geosrs:SpaceObliqueMercatorProjection	113
11.234. Class: geosrs:SpilhausOceanicProjection	113
11.235. Class: geosrs:StabiusWernerIIIProjection	114
11.236. Class: geosrs:StabiusWernerIIProjection	114
11.237. Class: geosrs:StabiusWernerIProjection	114
11.238. Class: geosrs:StereographicProjection	114
11.239. Class: geosrs:Strebe1995Projection	115
11.240. Class: geosrs:TheTimesProjection	115
11.241. Class: geosrs:TiltedPerspectiveProjection	115
11.242. Class: geosrs:ToblerCylindricalIProjection	115
11.243. Class: geosrs:ToblerCylindricalIIProjection	116
11.244. Class: geosrs:ToblerG1Projection	116
11.245. Class: geosrs:ToblerHyperellipticalProjection	116
11.246. Class: geosrs:ToblerWorldInASquareProjection	117

11.247. Class: geosrs:TransverseCylindricalEqualAreaProjection	117
11.248. Class: geosrs:TransverseMercatorProjection	117
11.249. Class: geosrs:TrystanEdwardsProjection	117
11.250. Class: geosrs:TwoPointEquidistantProjection	118
11.251. Class: geosrs:UniversalTransverseMercatorProjection	118
11.252. Class: geosrs:UrmayevIIIProjection	118
11.253. Class: geosrs:VanDerGrintenIIIProjection	119
11.254. Class: geosrs:VanDerGrintenIIProjection	119
11.255. Class: geosrs:VanDerGrintenIProjection	119
11.256. Class: geosrs:VanDerGrintenIVProjection	119
11.257. Class: geosrs:VerticalPerspectiveProjection	120
11.258. Class: geosrs:VitkovskylIProjection	120
11.259. Class: geosrs:WagnerIIIProjection	120
11.260. Class: geosrs:WagnerIIProjection	120
11.261. Class: geosrs:WagnerIProjection	121
11.262. Class: geosrs:WagnerIVProjection	121
11.263. Class: geosrs:WagnerIXProjection	121
11.264. Class: geosrs:WagnerVIIIProjection	122
11.265. Class: geosrs:WagnerVIIProjection	122
11.266. Class: geosrs:WagnerVIProjection	122
11.267. Class: geosrs:WagnerVProjection	122
11.268. Class: geosrs:WatermanButterflyProjection	123
11.269. Class: geosrs:WebMercatorProjection	123
11.270. Class: geosrs:WerenskioldIProjection	123
11.271. Class: geosrs:WernerProjection	123
11.272. Class: geosrs:WiechelProjection	124
11.273. Class: geosrs:WinkelIIIProjection	124
11.274. Class: geosrs:WinkelIIProjection	124
11.275. Class: geosrs:WinkelSnyderProjection	125
11.276. Class: geosrs:WinkelTripelProjection	125
11.277. Class: geosrs:PutninsP3'Projection	125
11.278. Class: geosrs:PutninsP4'Projection	125
11.279. Class: geosrs:PutninsP5'Projection	126
11.280. Class: geosrs:PutninsP6'Projection	126
11.281. Class: geosrs:MollweideWagnerProjection	126
 12. PLANET MODULE	 128
 ANNEX A (INFORMATIVE) ALIGNMENTS	 130
Overview	
A.1. IGN Ontology	130
A.2. ISO19111 Ontology	132
A.3. IFC Ontology	133
 ANNEX B (INFORMATIVE) SHACL SHAPES	 135
Overview	

ANNEX C (INFORMATIVE) REVISION HISTORY	137
BIBLIOGRAPHY	139

LIST OF TABLES

Table 1 – geosrs:CoordinateSystem	12
Table 2 – geosrs:CartesianCoordinateSystem	12
Table 3 – geosrs:EllipsoidalCoordinateSystem	13
Table 4 – geosrs:LinearCoordinateSystem	13
Table 5 – geosrs:OrdinalCoordinateSystem	13
Table 6 – geosrs:ParametricCoordinateSystem	14
Table 7 – geosrs:PolarCoordinateSystem	14
Table 8 – geosrs:SphericalCoordinateSystem	14
Table 9 – geosrs:VerticalCoordinateSystem	15
Table 10 – geosrs:CoordinateSystemAxis	15
Table 11 – geosrs:CRS	16
Table 12 – geosrs:EngineeringCRS	16
Table 13 – geosrs:GeodeticCRS	16
Table 14 – geosrs:GeographicCRS	17
Table 15 – geosrs:ProjectedCRS	17
Table 16 – geosrs:ReferenceSystem	18
Table 17 – geosrs:SingleCRS	18
Table 18 – geosrs:SpatialReferenceSystem	18
Table 19 – geosrs:CoordinateOperation	19
Table 20 – geosrs:SingleOperation	19
Table 21 – geosrs:Transformation	20
Table 22 – geosrs:Conversion	20
Table 23 – geosrs:OperationMethod	20
Table 24 – geosrs:OperationParameter	21
Table 25 – geosrs:OperationParameterValue	21
Table 26 – geosrs:Datum	21
Table 27 – geosrs:GeodeticDatum	22
Table 28 – geosrs:PrimeMeridian	22
Table 29 – geosrs:Ellipsoid	22
Table 30 – geosrs:VerticalDatum	23
Table 31 – geosrs:semiMajorAxis	23
Table 32 – geosrs:semiMinorAxis	24
Table 33 – geosrs:axis	24

Table 34 – geosrs:baseCRS	24
Table 35 – geosrs:coordinateSystem	25
Table 36 – geosrs:datum	25
Table 37 – geosrs:domainOfValidity	26
Table 38 – geosrs:ellipsoid	26
Table 39 – geosrs:sourceCRS	27
Table 40 – geosrs:targetCRS	27
Table 41 – geosrs:derivingConversion	29
Table 42 – geosrs:method	29
Table 43 – geosrs:parameter	30
Table 44 – geosrs:1DCoordinateSystem	32
Table 45 – geosrs:3DCoordinateSystem	32
Table 46 – geosrs:AffineCoordinateSystem	32
Table 47 – geosrs:BarycentricCoordinateSystem	33
Table 48 – geosrs:CelestialCoordinateSystem	33
Table 49 – geosrs:ConicalCoordinateSystem	33
Table 50 – geosrs:CurvilinearCoordinateSystem	34
Table 51 – geosrs:CylindricalCoordinateSystem	34
Table 52 – geosrs:EclipticCoordinateSystem	35
Table 53 – geosrs:EngineeringCoordinateSystem	35
Table 54 – geosrs:EquatorialCoordinateSystem	35
Table 55 – geosrs:GalacticCoordinateSystem	36
Table 56 – geosrs:GeodeticCoordinateSystem	36
Table 57 – geosrs:GeographicalCoordinateSystem	36
Table 58 – geosrs:GridCoordinateSystem	37
Table 59 – geosrs:HexagonalCoordinateSystem	37
Table 60 – geosrs:HorizontalCoordinateSystem	37
Table 61 – geosrs:LocalCoordinateSystem	38
Table 62 – geosrs:ObliqueCoordinateSystem	38
Table 63 – geosrs:OrthogonalCoordinateSystem	38
Table 64 – geosrs:PerifocalCoordinateSystem	39
Table 65 – geosrs:PlanarCoordinateSystem	39
Table 66 – geosrs:SkewCoordinateSystem	39
Table 67 – geosrs:DateTimeTemporalCoordinateSystem	40
Table 68 – geosrs:TemporalCountCoordinateSystem	40
Table 69 – geosrs:TemporalCoordinateSystem	40
Table 70 – geosrs:TemporalMeasureCoordinateSystem	41
Table 71 – geosrs:SuperGalacticCS	41
Table 72 – geosrs:axisDirection	41
Table 73 – geosrs:cylindricalCS	42
Table 74 – geosrs:DynamicGeodeticReferenceFrame	44

Table 75 – geosrs:TriaxialEllipsoid	44
Table 76 – geosrs:DynamicVerticalDatum	44
Table 77 – geosrs:ParametricDatum	45
Table 78 – geosrs:DefiningParameter	45
Table 79 – geosrs:EngineeringDatum	46
Table 80 – geosrs:TemporalDatum	46
Table 81 – geosrs:DatumEnsemble	46
Table 82 – geosrs:inverseFlattening	47
Table 83 – geosrs:primeMeridian	47
Table 84 – geosrs:A4Projection	51
Table 85 – geosrs:AdamsProjection	51
Table 86 – geosrs:AdamsWorldInASquareIIProjection	51
Table 87 – geosrs:AdamsWorldInASquareIProjection	52
Table 88 – geosrs:AiryProjection	52
Table 89 – geosrs:AitoffObliqueProjection	52
Table 90 – geosrs:AitoffProjection	53
Table 91 – geosrs:AlbersEqualAreaProjection	53
Table 92 – geosrs:AmericanPolyconicProjection	53
Table 93 – geosrs:ApianGlobularIProjection	53
Table 94 – geosrs:ApianIIProjection	54
Table 95 – geosrs:ArchaicProjection	54
Table 96 – geosrs:ArdenCloseProjection	54
Table 97 – geosrs:ArmadilloProjection	54
Table 98 – geosrs:AtlantisProjection	55
Table 99 – geosrs:AugustEpicycloidalProjection	55
Table 100 – geosrs:AuthaGraphProjection	55
Table 101 – geosrs:AzimuthalEqualAreaProjection	56
Table 102 – geosrs:AzimuthalEquidistantProjection	56
Table 103 – geosrs:AzimuthalProjection	56
Table 104 – geosrs:BSAMCylindricalProjection	56
Table 105 – geosrs:BaconGlobularProjection	57
Table 106 – geosrs:BakerDinomicProjection	57
Table 107 – geosrs:BalthasartProjection	57
Table 108 – geosrs:BaranyIIIProjection	58
Table 109 – geosrs:BaranyIIProjection	58
Table 110 – geosrs:BaranyIProjection	58
Table 111 – geosrs:BaranyIVProjection	58
Table 112 – geosrs:BartholomewProjection	59
Table 113 – geosrs:BehrmannProjection	59
Table 114 – geosrs:BerghausStarProjection	59
Table 115 – geosrs:BertinProjection	60

Table 116 – geosrs:BipolarObliqueConicConformalProjection	60
Table 117 – geosrs:BoggsEumorphicProjection	60
Table 118 – geosrs:BonneProjection	60
Table 119 – geosrs:BottomleyProjection	61
Table 120 – geosrs:BraunPerspectiveProjection	61
Table 121 – geosrs:BraunStereographicProjection	61
Table 122 – geosrs:BreusingGeometricProjection	61
Table 123 – geosrs:BreusingHarmonicProjection	62
Table 124 – geosrs:BriesemeisterProjection	62
Table 125 – geosrs:BromleyProjection	62
Table 126 – geosrs:CabotProjection	63
Table 127 – geosrs:CahillKeyesProjection	63
Table 128 – geosrs:CassiniProjection	63
Table 129 – geosrs:CentralConicProjection	63
Table 130 – geosrs:CentralCylindricalProjection	64
Table 131 – geosrs:ChamberlinTrimetricProjection	64
Table 132 – geosrs:CiricIProjection	64
Table 133 – geosrs:CollignonButterflyProjection	64
Table 134 – geosrs:CollignonProjection	65
Table 135 – geosrs:ColombiaUrbanProjection	65
Table 136 – geosrs:CompactMillerProjection	65
Table 137 – geosrs:CompromiseProjection	66
Table 138 – geosrs:ConformalProjection	66
Table 139 – geosrs:ConicalProjection	66
Table 140 – geosrs:CordiformProjection	66
Table 141 – geosrs:CoxConformalProjection	66
Table 142 – geosrs:CraigRetroazimuthalProjection	67
Table 143 – geosrs:CrasterParabolicProjection	67
Table 144 – geosrs:CupolaProjection	67
Table 145 – geosrs:CylindricalEqualArea	67
Table 146 – geosrs:CylindricalProjection	68
Table 147 – geosrs:CylindricalStereographicProjection	68
Table 148 – geosrs:DeakinMinimumErrorProjection	68
Table 149 – geosrs:DedistortProjection	69
Table 150 – geosrs:DenoyerSemiEllipticalProjection	69
Table 151 – geosrs:DietrichKitadaProjection	69
Table 152 – geosrs:DodecahedralProjection	69
Table 153 – geosrs:DymaxionProjection	70
Table 154 – geosrs:Eckert1Projection	70
Table 155 – geosrs:Eckert2Projection	70
Table 156 – geosrs:Eckert3Projection	70

Table 157 – geosrs:Eckert4Projection	71
Table 158 – geosrs:Eckert5Projection	71
Table 159 – geosrs:Eckert6Projection	71
Table 160 – geosrs:EisenlohrProjection	72
Table 161 – geosrs:EqualAreaProjection	72
Table 162 – geosrs:EqualEarthProjection	72
Table 163 – geosrs:EquallySpacedParallelsProjection	72
Table 164 – geosrs:EquidistantConicProjection	73
Table 165 – geosrs:EquidistantCylindricalProjection	73
Table 166 – geosrs:EquidistantProjection	73
Table 167 – geosrs:EquirectangularProjection	73
Table 168 – geosrs:FaheyProjection	74
Table 169 – geosrs:FairgrieveProjection	74
Table 170 – geosrs:FoucautProjection	74
Table 171 – geosrs:FoucautSinusoidalProjection	74
Table 172 – geosrs:FournierGlobularIProjection	75
Table 173 – geosrs:FournierIIProjection	75
Table 174 – geosrs:FranculaIIIProjection	75
Table 175 – geosrs:FranculaIVProjection	76
Table 176 – geosrs:FranculaXProjection	76
Table 177 – geosrs:FranculaVIIIProjection	76
Table 178 – geosrs:FranculaVProjection	76
Table 179 – geosrs:FranculaXIIIProjection	77
Table 180 – geosrs:FranculaXIIProjection	77
Table 181 – geosrs:FranculaXIVProjection	77
Table 182 – geosrs:GS50Projection	77
Table 183 – geosrs:GallIsographicProjection	78
Table 184 – geosrs:GallPetersProjection	78
Table 185 – geosrs:GallStereographicProjection	78
Table 186 – geosrs:GaussKruegerProjection	79
Table 187 – geosrs:GeneralVerticalPerspectiveProjection	79
Table 188 – geosrs:GilbertTwoWorldPerspectiveProjection	79
Table 189 – geosrs:GingeryProjection	79
Table 190 – geosrs:GinzburgIProjection	80
Table 191 – geosrs:GinzburgIIProjection	80
Table 192 – geosrs:GinzburgIVProjection	80
Table 193 – geosrs:GinzburgIXProjection	80
Table 194 – geosrs:GinzburgVIIIProjection	81
Table 195 – geosrs:GinzburgVIProjection	81
Table 196 – geosrs:GinzburgVProjection	81
Table 197 – geosrs:GlobularProjection	82

Table 198 – geosrs:GnomonicButterflyProjection	82
Table 199 – geosrs:GnomonicCubedSphereProjection	82
Table 200 – geosrs:GnomonicIcosahedronProjection	82
Table 201 – geosrs:GnomonicProjection	83
Table 202 – geosrs:GoodeHomolosineProjection	83
Table 203 – geosrs:GottWagnerProjection	83
Table 204 – geosrs:GringortenProjection	83
Table 205 – geosrs:GringortenQuincuncialProjection	84
Table 206 – geosrs:GuyouProjection	84
Table 207 – geosrs:HEALPixProjection	84
Table 208 – geosrs:HammerProjection	85
Table 209 – geosrs:HammerRetroazimuthalProjection	85
Table 210 – geosrs:HamusoidalProjection	85
Table 211 – geosrs:HatanoAsymmetricalEqualAreaProjection	85
Table 212 – geosrs:HerschelConformalConicProjection	86
Table 213 – geosrs:HillEucyclicProjection	86
Table 214 – geosrs:HoboDyerProjection	86
Table 215 – geosrs:HufnagelIIIProjection	86
Table 216 – geosrs:HufnagelIIProjection	87
Table 217 – geosrs:HufnagelIProjection	87
Table 218 – geosrs:HufnagelIVProjection	87
Table 219 – geosrs:HufnagelIXProjection	87
Table 220 – geosrs:HufnagelProjection	88
Table 221 – geosrs:HufnagelVIIIProjection	88
Table 222 – geosrs:HufnagelVIIProjection	88
Table 223 – geosrs:HufnagelVIProjection	88
Table 224 – geosrs:HufnagelVProjection	88
Table 225 – geosrs:HufnagelXIIProjection	89
Table 226 – geosrs:HufnagelXIProjection	89
Table 227 – geosrs:HufnagelXProjection	89
Table 228 – geosrs:IcosahedralProjection	89
Table 229 – geosrs:InterruptedGoodeHomolosineOceanicViewProjection	90
Table 230 – geosrs:InterruptedGoodeHomolosineProjection	90
Table 231 – geosrs:InterruptedQuarticAuthalicProjection	90
Table 232 – geosrs:JamesAzimuthalProjection	91
Table 233 – geosrs:KamenetskiyIProjection	91
Table 234 – geosrs:KarchenkoShabanovaProjection	91
Table 235 – geosrs:Kavrayskiy7Projection	91
Table 236 – geosrs:KissProjection	92
Table 237 – geosrs:Krovak	92
Table 238 – geosrs:LaHireProjection	92

Table 239 – geosrs:LabordeProjection	92
Table 240 – geosrs:LagrangeProjection	93
Table 241 – geosrs:LambertAzimuthalEqualArea	93
Table 242 – geosrs:LambertConformalConicProjection	93
Table 243 – geosrs:LambertCylindricalEqualAreaProjection	94
Table 244 – geosrs:LarriveeProjection	94
Table 245 – geosrs:LaskowskiProjection	94
Table 246 – geosrs:LatLonProjection	95
Table 247 – geosrs:LeeProjection	95
Table 248 – geosrs:LenticularProjection	95
Table 249 – geosrs:LittrowProjection	95
Table 250 – geosrs:LonLatProjection	96
Table 251 – geosrs:LorgnaProjection	96
Table 252 – geosrs:LowryProjection	96
Table 253 – geosrs:LoximuthalProjection	96
Table 254 – geosrs:MaurerNo73Projection	97
Table 255 – geosrs:MayrProjection	97
Table 256 – geosrs:McBrydeThomasFlatPolarParabolicProjection	97
Table 257 – geosrs:McBrydeThomasFlatPolarQuarticProjection	97
Table 258 – geosrs:McBrydeThomasFlatPolarSinusoidalProjection	98
Table 259 – geosrs:McBrydeThomasIIProjection	98
Table 260 – geosrs:McBrydeThomasIProjection	98
Table 261 – geosrs:MercatorProjection	99
Table 262 – geosrs:MillerOblatedStereographicProjection	99
Table 263 – geosrs:MillerProjection	99
Table 264 – geosrs:MinimumErrorProjection	99
Table 265 – geosrs:MollweideProjection	100
Table 266 – geosrs:MurdochIIIProjection	100
Table 267 – geosrs:MurdochIIProjection	100
Table 268 – geosrs:MurdochIProjection	100
Table 269 – geosrs:MyrahedalProjection	101
Table 270 – geosrs:NaturalEarth2Projection	101
Table 271 – geosrs:NaturalEarthProjection	101
Table 272 – geosrs:NellHammerProjection	102
Table 273 – geosrs:NellProjection	102
Table 274 – geosrs:NicolosiGlobularProjection	102
Table 275 – geosrs:NordicProjection	102
Table 276 – geosrs:ObliqueCylindricalEqualAreaProjection	103
Table 277 – geosrs:ObliqueMercatorProjection	103
Table 278 – geosrs:ObliquePlateCarreeProjection	103
Table 279 – geosrs:ObliqueProjection	104

Table 280 – geosrs:ObliqueStereographicProjection	104
Table 281 – geosrs:OctantProjection	104
Table 282 – geosrs:OrteliusOvalProjection	104
Table 283 – geosrs:OrthographicProjection	105
Table 284 – geosrs:OvalProjection	105
Table 285 – geosrs:PattersonCylindricalProjection	105
Table 286 – geosrs:PavlovProjection	105
Table 287 – geosrs:PeirceQuincuncialProjection	106
Table 288 – geosrs:PerspectiveConicProjection	106
Table 289 – geosrs:PerspectiveProjection	106
Table 290 – geosrs:PetermannStarProjection	106
Table 291 – geosrs:PlateCarreeProjection	107
Table 292 – geosrs:PoleLineProjection	107
Table 293 – geosrs:PolyconicProjection	107
Table 294 – geosrs:PolyhedralProjection	107
Table 295 – geosrs:Projection	108
Table 296 – geosrs:PseudoAzimuthalProjection	108
Table 297 – geosrs:PseudoConicalProjection	108
Table 298 – geosrs:PseudoCylindricalProjection	108
Table 299 – geosrs:PseudoOrthographicProjection	109
Table 300 – geosrs:PtolemyIIProjection	109
Table 301 – geosrs:PtolemyIProjection	109
Table 302 – geosrs:PutninsP1Projection	109
Table 303 – geosrs:PutninsP2Projection	110
Table 304 – geosrs:PutninsP3Projection	110
Table 305 – geosrs:PutninsP5Projection	110
Table 306 – geosrs:PutninsP6Projection	110
Table 307 – geosrs:QuadrilateralizedSphericalCubeProjection	111
Table 308 – geosrs:QuarticAuthalicProjection	111
Table 309 – geosrs:RectangularPolyconicProjection	111
Table 310 – geosrs:RetroazimuthalProjection	112
Table 311 – geosrs:RobinsonProjection	112
Table 312 – geosrs:RoussilheProjection	112
Table 313 – geosrs:SchjernerIProjection	112
Table 314 – geosrs:SinusoidalProjection	113
Table 315 – geosrs:SmythEqualSurfaceProjection	113
Table 316 – geosrs:SpaceObliqueMercatorProjection	113
Table 317 – geosrs:SpilhausOceanicProjection	113
Table 318 – geosrs:StabiusWernerIIProjection	114
Table 319 – geosrs:StabiusWernerIProjection	114
Table 320 – geosrs:StabiusWernerIProjection	114

Table 321 – geosrs:StereographicProjection	114
Table 322 – geosrs:Strebe1995Projection	115
Table 323 – geosrs:TheTimesProjection	115
Table 324 – geosrs:TiltedPerspectiveProjection	115
Table 325 – geosrs:ToblerCylindricalIIProjection	116
Table 326 – geosrs:ToblerCylindricalIProjection	116
Table 327 – geosrs:ToblerG1Projection	116
Table 328 – geosrs:ToblerHyperellipticalProjection	116
Table 329 – geosrs:ToblerWorldInASquareProjection	117
Table 330 – geosrs:TransverseCylindricalEqualAreaProjection	117
Table 331 – geosrs:TransverseMercatorProjection	117
Table 332 – geosrs:TrystanEdwardsProjection	118
Table 333 – geosrs:TwoPointEquidistantProjection	118
Table 334 – geosrs:UniversalTransverseMercatorProjection	118
Table 335 – geosrs:UrmayevIIProjection	118
Table 336 – geosrs:VanDerGrintenIIIProjection	119
Table 337 – geosrs:VanDerGrintenIIProjection	119
Table 338 – geosrs:VanDerGrintenIProjection	119
Table 339 – geosrs:VanDerGrintenIVProjection	119
Table 340 – geosrs:VerticalPerspectiveProjection	120
Table 341 – geosrs:VitkovskyIProjection	120
Table 342 – geosrs:WagnerIIIProjection	120
Table 343 – geosrs:WagnerIIProjection	121
Table 344 – geosrs:WagnerIProjection	121
Table 345 – geosrs:WagnerIVProjection	121
Table 346 – geosrs:WagnerIXProjection	121
Table 347 – geosrs:WagnerVIIIProjection	122
Table 348 – geosrs:WagnerVIIProjection	122
Table 349 – geosrs:WagnerVIProjection	122
Table 350 – geosrs:WagnerVProjection	122
Table 351 – geosrs:WatermanButterflyProjection	123
Table 352 – geosrs:WebMercatorProjection	123
Table 353 – geosrs:WerenskioldIProjection	123
Table 354 – geosrs:WernerProjection	124
Table 355 – geosrs:WiechelProjection	124
Table 356 – geosrs:WinkelIIIProjection	124
Table 357 – geosrs:WinkelIIProjection	124
Table 358 – geosrs:WinkelSnyderProjection	125
Table 359 – geosrs:WinkelTripelProjection	125
Table 360 – geosrs:PutninsP3'Projection	125
Table 361 – geosrs:PutninsP4'Projection	125

Table 362 – geosrs:PutninsP5'Projection	126
Table 363 – geosrs:PutninsP6'Projection	126
Table 364 – geosrs:MollweideWagnerProjection	126
Table A.1 – Alignment: Namespaces	130
Table A.2 – Alignment: IGN Ontology	131
Table A.3 – Alignment: ISO19111 Ontology	132
Table A.4 – Alignment: IFC Ontology	133



ABSTRACT

<Insert Abstract Text here>



KEYWORDS

The following are keywords to be used by search engines and document catalogues.

keyword_1, keyword_2, keyword_3, etc.



PREFACE

NOTE: Insert Preface Text here. Give OGC specific commentary: describe the technical content, reason for document, history of the document and precursors, and plans for future work.

There are two ways to specify the Preface: “simple clause” or “full clause”

If the Preface does not contain subclauses, it is considered a simple preface clause. This one is entered as text after the `.Preface` label and must be placed between the AsciiDoc document attributes and the first AsciiDoc section title. It should not be give a section title of its own.

If the Preface contains subclauses, it needs to be encoded as a full preface clause. This one is recognized as a full Metanorma AsciiDoc section with the title “Preface”, i.e. `== Preface`. (Simple preface content can also be encoded like full preface.)



SECURITY CONSIDERATIONS

No security considerations have been made for this Standard.



SUBMITTERS

All questions regarding this submission should be directed to the editor or the submitters:

NAME	AFFILIATION	OGC MEMBER
Steve Liang	University of Calgary, Canada / SensorUp Inc.	Yes



SOURCE OF THE CONTENT FOR THIS OGC DOCUMENT



VALIDITY OF CONTENT



FUTURE WORK

NOTE:If you need to place any further sections in the preface area use the [.preface] attribute.



CONTRIBUTORS

Additional contributors to this Standard include the following:

Individual name(s), Organization



1

SCOPE



SCOPE

<Insert Scope text here>

NOTE: Give the subject of the document and the aspects of that scope covered by the document.



2

CONFORMANCE



CONFORMANCE

<Insert conformance content here>

NOTE: Provide a short description of the content approached in subsequent sections and the main subject of the document



3

NORMATIVE REFERENCES

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Identification of Common Molecular Subsequences. Smith, T.F., Waterman, M.S., J. Mol. Biol. 147, 195–197 (1981)

ZIB Structure Prediction Pipeline: Composing a Complex Biological Workflow through Web Services. May, P., Ehrlich, H.C., Steinke, T. In: Nagel, W.E., Walter, W.V., Lehner, W. (eds.) Euro-Par 2006. LNCS, vol. 4128, pp. 1148–1158. Springer, Heidelberg (2006)

The Grid: Blueprint for a New Computing Infrastructure., Foster, I., Kesselman, C.. Morgan Kaufmann, San Francisco (1999).

Grid Information Services for Distributed Resource Sharing. Czajkowski, K., Fitzgerald, S., Foster, I., Kesselman, C. In: 10th IEEE International Symposium on High Performance Distributed Computing, pp. 181–184. IEEE Press, New York (2001)

The background features a dark blue field with several thin, light yellow lines intersecting at various points. Three of these intersection points are marked with small yellow dots. One dot is located in the upper right quadrant, another in the middle right, and a third in the lower left. The overall aesthetic is modern and minimalist.

4

TERMS AND DEFINITIONS

This document uses the terms defined in OGC Policy Directive 49, which is based on the ISO/IEC Directives, Part 2, Rules for the structure and drafting of International Standards. In particular, the word “shall” (not “must”) is the verb form used to indicate a requirement to be strictly followed to conform to this document and OGC documents do not use the equivalent phrases in the ISO/IEC Directives, Part 2.

This document also uses terms defined in the OGC Standard for Modular specifications (OGC 08-131r3), also known as the ‘ModSpec’. The definitions of terms such as standard, specification, requirement, and conformance test are provided in the ModSpec.

For the purposes of this document, the following additional terms and definitions apply.

4.1. example term

term used for exemplary purposes

Note 1 to entry: An example note.

Example Here’s an example of an example term.

[SOURCE:]



5

CONVENTIONS

NOTE: This section provides details and examples for any conventions used in the document. Examples of conventions are symbols, abbreviations, use of XML schema, or special notes regarding how to read the document.

5.1. Identifiers

The normative provisions in this standard are denoted by the URI

<http://www.opengis.net/spec/{standard}/{m.n}>

All requirements and conformance tests that appear in this document are denoted by partial URIs which are relative to this base.

5.2. Other conventions

<Place any other convention needed with its corresponding title>



6

CORE

This clause establishes the **Core** Requirements class, with IRI /req/core, which has a corresponding Conformance Class, **Core**, with IRI /conf/core.

6.1. Class: geosrs:CoordinateSystem

Table 1 — geosrs:CoordinateSystem

Type	owl:Class
URI	https://w3id.org/geosrs/cs/CoordinateSystem
Definition	Set of axes that spans a given coordinate space and of mathematical rules for specifying how coordinates are to be assigned to points. Cf. ISO 19111:2007:2007-07, part 9.2, table 17 and annex B.2.

6.2. Class: geosrs:CartesianCoordinateSystem

Table 2 — geosrs:CartesianCoordinateSystem

Type	owl:Class
URI	https://w3id.org/geosrs/cs/CartesianCoordinateSystem
Definition	Coordinate system which gives the position of points relative to n mutually perpendicular axes. Cf. ISO 19111:2007:2007-07, tables 15 and 18.
Super-classes	PseudoCylindricalProjection

6.3. Class: geosrs:EllipsoidalCoordinateSystem

Table 3 — geosrs:EllipsoidalCoordinateSystem

Type	<u>owl:Class</u>
URI	<u>https://w3id.org/geosrs/cs/EllipsoidalCoordinateSystem</u>
Definition	Coordinate system which gives the position is specified by geodetic latitude, geodetic longitude and (in the three-dimensional case) ellipsoidal height. Cf. ISO 19111:2007:2007-07, tables 15 and 20.
Super-classes	<u>PseudoCylindricalProjection</u>

6.4. Class: geosrs:LinearCoordinateSystem

Table 4 — geosrs:LinearCoordinateSystem

Type	<u>owl:Class</u>
URI	<u>https://w3id.org/geosrs/cs/LinearCoordinateSystem</u>
Definition	One-dimensional coordinate system in which a linear feature forms the axis.

6.5. Class: geosrs:OrdinalCoordinateSystem

Table 5 — geosrs:OrdinalCoordinateSystem

Type	<u>owl:Class</u>
URI	<u>https://w3id.org/geosrs/cs/OrdinalCoordinateSystem</u>
Definition	n-dimensional coordinate system in which every axis uses integers.
Super-classes	<u>GeodeticCoordinateSystem</u>

6.6. Class: geosrs:ParametricCoordinateSystem

Table 6 — geosrs:ParametricCoordinateSystem

Type	owl:Class
URI	https://w3id.org/geosrs/cs/ParametricCoordinateSystem
Definition	One-dimensional coordinate system where the axis units are parameter values which are not inherently spatial.
Super-classes	GeodeticCoordinateSystem

6.7. Class: geosrs:PolarCoordinateSystem

Table 7 — geosrs:PolarCoordinateSystem

Type	owl:Class
URI	https://w3id.org/geosrs/cs/PolarCoordinateSystem
Definition	Two-dimensional coordinate system in Euclidean space in which position is specified by one distance coordinate and one angular coordinate.
Super-classes	GeodeticCoordinateSystem

6.8. Class: geosrs:SphericalCoordinateSystem

Table 8 — geosrs:SphericalCoordinateSystem

Type	owl:Class
URI	https://w3id.org/geosrs/cs/SphericalCoordinateSystem

Definition	Three-dimensional coordinate system in Euclidean space with one distance measured from the origin and two angular coordinates
Super-classes	<u>GeodeticCoordinateSystem</u>

6.9. Class: geosrs:VerticalCoordinateSystem

Table 9 — geosrs:VerticalCoordinateSystem

Type	<u>owl:Class</u>
URI	<u>https://w3id.org/geosrs/cs/VerticalCoordinateSystem</u>
Definition	One-dimensional coordinate system used for gravity related height or depth measurements. Cf. ISO 19111:2007:2007-07, tables 15 and 25.
Super-classes	<u>3DCoordinateSystem</u>

6.10. Class: geosrs:CoordinateSystemAxis

Table 10 — geosrs:CoordinateSystemAxis

Type	<u>owl:Class</u>
URI	<u>https://w3id.org/geosrs/cs/CoordinateSystemAxis</u>
Definition	Axis relative to which a coordinate of a point is specified in a coordinate system. See ISO 19111:2007:2007-07, part 9.3, table 27 and annex B.2.2.

6.11. Class: geosrs:CRS

Table 11 — geosrs:CRS

Type	<u>owl:Class</u>
URI	https://w3id.org/geosrs/srs/CRS
Definition	Depending on the spatial dimension of coordinates (1D, 2D, 3D), this piece of metadata is used for specifying the elements of definition associated to a given set of coordinates: its datum, its ellipsoid, its prime meridian, the type of coordinates (geocentric, geographic, projected,...), the coordinates units of measure, when appropriate the cartographic projection used, the vertical coordinate reference system.
Super-classes	CRS[CRS]

6.12. Class: geosrs:EngineeringCRS

Table 12 — geosrs:EngineeringCRS

Type	<u>owl:Class</u>
URI	https://w3id.org/geosrs/srs/EngineeringCRS
Definition	A contextually local coordinate reference system which can be divided into two broad categories: — earth-fixed systems applied to engineering activities on or near the surface of the earth; — CRSs on moving platforms such as road vehicles, vessels, aircraft or spacecraft.
Super-classes	CRS[CRS]

6.13. Class: geosrs:GeodeticCRS

Table 13 — geosrs:GeodeticCRS

Type	<u>owl:Class</u>
------	------------------

URI	https://w3id.org/geosrs/srs/GeodeticCRS
Definition	Coordinate Reference System associated with a geodetic datum. Cf. ISO 19111:2007:2007-07, part 8.2.2.a, table 10 and annex B.1.2.1.a.
Super-classes	CRS[CRS]

6.14. Class: geosrs:GeographicCRS

Table 14 — geosrs:GeographicCRS

Type	owl:Class
URI	https://w3id.org/geosrs/srs/GeographicCRS
Definition	Coordinate Reference System that has a geodetic reference frame and an ellipsoidal coordinate system
Super-classes	CRS[CRS]

6.15. Class: geosrs:ProjectedCRS

Table 15 — geosrs:ProjectedCRS

Type	owl:Class
URI	https://w3id.org/geosrs/srs/ProjectedCRS
Definition	Coordinate Reference System derived from a two-dimensional geodetic coordinate reference system by applying a map projection. Cf. ISO 19111:2007:2007-07, part 8.2.3.b, table 11 and annex B.1.2.3.
Super-classes	CRS[CRS]

6.16. Class: geosrs:ReferenceSystem

Table 16 — geosrs:ReferenceSystem

Type	owl:Class
URI	https://w3id.org/geosrs/srs/ReferenceSystem
Definition	An abstract coordinate system, whose origin, orientation and scale are specified in physical space. It is based on a set of reference points, defined as geometric points whose position is identified physically and mathematically.

6.17. Class: geosrs:SingleCRS

Table 17 — geosrs:SingleCRS

Type	owl:Class
URI	https://w3id.org/geosrs/srs/SingleCRS
Definition	Coordinate reference system consisting of one coordinate system and one datum. Cf. ISO 19111:2007:2007-07, table 5.
Super-classes	CRS[CRS]

6.18. Class: geosrs:SpatialReferenceSystem

Table 18 — geosrs:SpatialReferenceSystem

Type	owl:Class
URI	https://w3id.org/geosrs/srs/SpatialReferenceSystem

Definition	A spatial reference system (SRS) is a system for establishing spatial position. A spatial reference system can use geographic identifiers (place names, for example), coordinates (in which case it is a coordinate reference system), or identifiers with structured geometry (in which case it is a discrete global grid system).
Super-classes	CRS[CRS]

6.19. Class: geosrs:CoordinateOperation

Table 19 — geosrs:CoordinateOperation

Type	<u>owl:Class</u>
URI	https://w3id.org/geosrs/co/CoordinateOperation
Definition	Mathematical operation on coordinates, based on one-to-one relationship, that changes coordinates from one coordinate reference system to another. Cf. ISO 19111:2007:2007-07, part 11.1, table 42 and annex B.4.
Super-classes	CRS[CRS]

6.20. Class: geosrs:SingleOperation

Table 20 — geosrs:SingleOperation

Type	<u>owl:Class</u>
URI	https://w3id.org/geosrs/co/SingleOperation
Definition	A non concatenated coordinate operation. Cf. ISO 19111:2007:2007-07, table 43.
Super-classes	CRS[CRS]

6.21. Class: geosrs:Transformation

Table 21 — geosrs:Transformation

Type	owl:Class
URI	https://w3id.org/geosrs/co/Transformation
Definition	Coordinate operation in which the two coordinate reference systems are based on different datums. Cf. ISO 19111:2007:2007-07, table 44.
Super-classes	CRS[CRS]

6.22. Class: geosrs:Conversion

Table 22 — geosrs:Conversion

Type	owl:Class
URI	https://w3id.org/geosrs/co/Conversion
Definition	Coordinate operation in which both coordinate reference systems are based on the same datum. Cf. ISO 19111:2007:2007-07, table 45 and annex B.4.2.
Super-classes	CRS[CRS]

6.23. Class: geosrs:OperationMethod

Table 23 — geosrs:OperationMethod

Type	owl:Class
URI	https://w3id.org/geosrs/co/OperationMethod

Definition	Method used to perform an operation on coordinates. See ISO 19111:2007:2007-07, table 48 and annex B.4.5.
------------	--

6.24. Class: geosrs:OperationParameter

Table 24 — geosrs:OperationParameter

Type	owl:Class
URI	https://w3id.org/geosrs/co/OperationParameter
Definition	Parameter used by a method to perform an operation on coordinates. See ISO 19111:2007:2007-07, table 52 and annex B.4.5.

6.25. Class: geosrs:OperationParameterValue

Table 25 — geosrs:OperationParameterValue

Type	owl:Class
URI	https://w3id.org/geosrs/co/OperationParameterValue
Definition	Value of a parameter used by a method to perform an operation on coordinates. See ISO 19111:2007:2007-07, table 55.

6.26. Class: geosrs:Datum

Table 26 — geosrs:Datum

Type	owl:Class
URI	https://w3id.org/geosrs/datum/Datum

Definition	Parameter or set of parameters that define the position of the origin, the scale and the orientation of a coordinate system. Cf. ISO 19111:2007:2007-07, part 10.1, table 33 and annex B.3.
------------	---

6.27. Class: geosrs:GeodeticDatum

Table 27 — geosrs:GeodeticDatum

Type	owl:Class
URI	https://w3id.org/geosrs/datum/GeodeticDatum
Definition	Datum describing the relation of a two- or three-dimensional coordinate system to the Earth. Cf. ISO 19111:2007:2007-07, part 10.2, table 34 and annex B.3.2.

6.28. Class: geosrs:PrimeMeridian

Table 28 — geosrs:PrimeMeridian

Type	owl:Class
URI	https://w3id.org/geosrs/datum/PrimeMeridian
Definition	Meridian from which the longitudes of other meridians are quantified. Cf. ISO 19111:2007:2007-07, part 10.2.1, table 35 and annex B.3.2.2.

6.29. Class: geosrs:Ellipsoid

Table 29 — geosrs:Ellipsoid

Type	owl:Class
------	---------------------------

URI	https://w3id.org/geosrs/datum/Ellipsoid
Definition	Surface formed by the rotation of an ellipse about its minor axis, defined by a semi-major axis and a flattening parameter and fairly geocentric. NB : It is a mathematical model of the geoid, i.e. the Earth without its relief. Many geodetic ellipsoids exist. Cf. ISO 19111:2007:2007-07, part 10.2.2, table 36 and annex B.3.2.3.

6.30. Class: geosrs:VerticalDatum

Table 30 — geosrs:VerticalDatum

Type	owl:Class
URI	https://w3id.org/geosrs/datum/VerticalDatum
Definition	Datum describing the relation of gravity-related heights or depths to the Earth. Cf. ISO 19111:2007:2007-07, table 41 and annex B.3.3.
Super-classes	Frame[Frame]

6.31. Property: geosrs:semiMajorAxis

Table 31 — geosrs:semiMajorAxis

URI	https://w3id.org/geosrs/semiMajorAxis
Type	owl:DatatypeProperty
Definition	Indicates the length of the semi major axis of an ellipsoid. Cf. ISO 19111:2007:2007-07, table 36, attribute length of semi-major axis.
Range	xsd:double[xsd:double]
Domain	Ellipsoid

6.32. Property: geosrs:semiMinorAxis

Table 32 — geosrs:semiMinorAxis

URI	https://w3id.org/geosrs/semiMinorAxis
Type	owl:DatatypeProperty
Definition	Indicates the length of the semi minor axis of an ellipsoid. Cf. ISO 19111:2007:2007-07, table 37, attribute length of semi-minor axis.
Range	xsd:double[xsd:double]
Domain	Ellipsoid

6.33. Property: geosrs:axis

Table 33 — geosrs:axis

URI	https://w3id.org/geosrs/axis
Type	owl:ObjectProperty
Definition	The property relates a coordinate system to one of its axis
Range	Axis
Domain	CoordinateSystem

6.34. Property: geosrs:baseCRS

Table 34 — geosrs:baseCRS

URI	https://w3id.org/geosrs/baseCRS
-----	---

Type	owl:ObjectProperty
Definition	The geodetic coordinate reference system on which a projected coordinate reference system is based. Cf. ISO 19111:2007:2007-07, table 11, association role base CRS.
Range	CRS
Domain	CRS

6.35. Property: geosrs:coordinateSystem

Table 35 — geosrs:coordinateSystem

URI	https://w3id.org/geosrs/coordinateSystem
Type	owl:ObjectProperty
Definition	The property relates a coordinate reference system to its coordinate system
Range	CoordinateSystem
Domain	CRS

6.36. Property: geosrs:datum

Table 36 — geosrs:datum

URI	https://w3id.org/geosrs/datum
Type	owl:ObjectProperty
Definition	The property relates a coordinate reference system to a datum
Range	Datum

Domain	<u>CRS</u>
--------	----------------------------

6.37. Property: geosrs:domainOfValidity

Table 37 — geosrs:domainOfValidity

URI	<u>https://w3id.org/geosrs/domainOfValidity</u>
Type	<u>owl:ObjectProperty</u>
Definition	Geographic area or time interval in which the referring object is valid. Cf. ISO 19111:2007:2007-07, tables 4, 33 and 42, attribute domainOfValidity.
Range	<u>AreaOfUse</u>
Domain	<u>CRS</u>

6.38. Property: geosrs:ellipsoid

Table 38 — geosrs:ellipsoid

URI	<u>https://w3id.org/geosrs/ellipsoid</u>
Type	<u>owl:ObjectProperty</u>
Definition	The properties relates a datum to its ellipsoid definition
Range	<u>Ellipsoid</u>
Domain	<u>Datum</u>

6.39. Property: geosrs:sourceCRS

Table 39 — geosrs:sourceCRS

URI	https://w3id.org/geosrs/sourceCRS
Type	owl:ObjectProperty
Definition	The coordinate reference system associated to the data used as input of a given operation. Cf. ISO 19111:2007:2007-07, table 42, named association Source.
Range	CRS
Domain	CRS

6.40. Property: geosrs:targetCRS

Table 40 — geosrs:targetCRS

URI	https://w3id.org/geosrs/targetCRS
Type	owl:ObjectProperty
Definition	The coordinate reference system associated to the data obtained as output of a given operation. Cf. ISO 19111:2007:2007-07, table 42, named association Target.
Range	CRS
Domain	CRS

7

COORDINATE OPERATION MODULE

This clause establishes the **Co** Requirements class, with IRI /req/co, which has a corresponding Conformance Class, **Co**, with IRI /conf/co.

7.1. Property: geosrs:derivingConversion

Table 41 — geosrs:derivingConversion

URI	https://w3id.org/geosrs/co/derivingConversion
Type	owl:ObjectProperty
Range	CRS
Domain	CRS

7.2. Property: geosrs:method

Table 42 — geosrs:method

URI	https://w3id.org/geosrs/co/method
Type	owl:ObjectProperty
Range	CoordinateOperation
Domain	CRS

7.3. Property: geosrs:parameter

Table 43 — geosrs:parameter

URI	https://w3id.org/geosrs/co/parameter
Type	owl:ObjectProperty
Range	OperationParameter
Domain	Conversion



8

COORDINATE SYSTEM MODULE

This clause establishes the **CS** Requirements class, with IRI /req/cs, which has a corresponding Conformance Class, **CS**, with IRI /conf/cs.

8.1. Class: geosrs:1DCoordinateSystem

Table 44 — geosrs:1DCoordinateSystem

URI	https://w3id.org/geosrs/cs/1DCoordinateSystem
Definition	Non-repeating sequence of coordinate system axes that spans a given coordinate space in one dimension
Super-classes	1DCoordinateSystem

8.2. Class: geosrs:3DCoordinateSystem

Table 45 — geosrs:3DCoordinateSystem

URI	https://w3id.org/geosrs/cs/3DCoordinateSystem
Definition	Non-repeating sequence of coordinate system axes that spans a given coordinate space in three dimensions
Super-classes	3DCoordinateSystem

8.3. Class: geosrs:AffineCoordinateSystem

Table 46 — geosrs:AffineCoordinateSystem

URI	https://w3id.org/geosrs/cs/AffineCoordinateSystem
-----	---

Definition	Coordinate system in Euclidean space with straight axes that are not necessarily mutually perpendicular
Super-classes	<u>AffineCoordinateSystem</u>

8.4. Class: geosrs:BarycentricCoordinateSystem

Table 47 — geosrs:BarycentricCoordinateSystem

URI	<u>https://w3id.org/geosrs/cs/BarycentricCoordinateSystem</u>
Definition	A coordinate system in which the location of a point is specified by reference to a simplex (a triangle for points in a plane, a tetrahedron for points in three-dimensional space, etc.)
Super-classes	<u>BarycentricCoordinateSystem</u>

8.5. Class: geosrs:CelestialCoordinateSystem

Table 48 — geosrs:CelestialCoordinateSystem

URI	<u>https://w3id.org/geosrs/cs/CelestialCoordinateSystem</u>
Definition	A coordinate system for specifying positions of celestial objects relative to physical reference points
Super-classes	<u>CelestialCoordinateSystem</u>

8.6. Class: geosrs:ConicalCoordinateSystem

Table 49 — geosrs:ConicalCoordinateSystem

URI	<u>https://w3id.org/geosrs/cs/ConicalCoordinateSystem</u>
-----	--

Definition	A conical coordinate system is a three-dimensional orthogonal coordinate system consisting of concentric spheres (described by their radius r) and by two families of perpendicular cones, aligned along the z - and x -axes, respectively
Super-classes	<u>ConicalCoordinateSystem</u>

8.7. Class: geosrs:CurvilinearCoordinateSystem

Table 50 — geosrs:CurvilinearCoordinateSystem

URI	<u>https://w3id.org/geosrs/cs/CurvilinearCoordinateSystem</u>
Definition	A coordinate system for the Euclidean space in which the coordinate lines may be curved
Super-classes	<u>CurvilinearCoordinateSystem</u>

8.8. Class: geosrs:CylindricalCoordinateSystem

Table 51 — geosrs:CylindricalCoordinateSystem

URI	<u>https://w3id.org/geosrs/cs/CylindricalCoordinateSystem</u>
Definition	Three-dimensional coordinate system in Euclidean space in which position is specified by two linear coordinates and one angular coordinate
Super-classes	<u>CylindricalCoordinateSystem</u>

8.9. Class: geosrs:EclipticCoordinateSystem

Table 52 — geosrs:EclipticCoordinateSystem

URI	https://w3id.org/geosrs/cs/EclipticCoordinateSystem
Definition	An ecliptic coordinate system is used for representing the apparent positions and orbits of solar system objects.
Super-classes	EclipticCoordinateSystem

8.10. Class: geosrs:EngineeringCoordinateSystem

Table 53 — geosrs:EngineeringCoordinateSystem

URI	https://w3id.org/geosrs/cs/EngineeringCoordinateSystem
Definition	Coordinate system used by an engineering coordinate reference system, one of an affine coordinate system, a Cartesian coordinate system, a cylindrical coordinate system, a linear coordinate sytem, an ordinal coordinate system, a polar coordinate system or a spherical coordinate system
Super-classes	EngineeringCoordinateSystem

8.11. Class: geosrs:EquatorialCoordinateSystem

Table 54 — geosrs:EquatorialCoordinateSystem

URI	https://w3id.org/geosrs/cs/EquatorialCoordinateSystem
Definition	A celestial coordinate system in which an object's position on the celestial sphere is described in terms of its north-south declination and east-west right ascension, measured relative to the celestial equator and vernal equinox, respectively.
Super-classes	EquatorialCoordinateSystem

8.12. Class: geosrs:GalacticCoordinateSystem

Table 55 — geosrs:GalacticCoordinateSystem

URI	https://w3id.org/geosrs/cs/GalacticCoordinateSystem
Definition	A coordinate system with the Sun as its center, the primary direction aligned with the approximate center of the Milky Way Galaxy, and the fundamental plane parallel to an approximation of the galactic plane but offset to its north.
Super-classes	CelestialCoordinateSystem 3DCoordinateSystem

8.13. Class: geosrs:GeodeticCoordinateSystem

Table 56 — geosrs:GeodeticCoordinateSystem

URI	https://w3id.org/geosrs/cs/GeodeticCoordinateSystem
Definition	Coordinate system used by a Geodetic CRS, one of a Cartesian coordinate system or a spherical coordinate system.
Super-classes	GeodeticCoordinateSystem

8.14. Class: geosrs:GeographicalCoordinateSystem

Table 57 — geosrs:GeographicalCoordinateSystem

URI	https://w3id.org/geosrs/cs/GeographicalCoordinateSystem
Definition	Spherical or geodetic coordinate system for measuring and communicating positions directly on Earth as latitude and longitude.
Super-classes	SphericalCoordinateSystem GeodeticCoordinateSystem

8.15. Class: geosrs:GridCoordinateSystem

Table 58 — geosrs:GridCoordinateSystem

URI	https://w3id.org/geosrs/cs/GridCoordinateSystem
Definition	A grid coordinate system identifies areas within a grid.
Super-classes	GridCoordinateSystem

8.16. Class: geosrs:HexagonalCoordinateSystem

Table 59 — geosrs:HexagonalCoordinateSystem

URI	https://w3id.org/geosrs/cs/HexagonalCoordinateSystem
Definition	A hexagonal coordinate system identifies areas within a hexagonal lattice.
Super-classes	HexagonalCoordinateSystem

8.17. Class: geosrs:HorizontalCoordinateSystem

Table 60 — geosrs:HorizontalCoordinateSystem

URI	https://w3id.org/geosrs/cs/HorizontalCoordinateSystem
Definition	A horizontal coordinate system is a celestial coordinate system that uses the observer's local horizon as the fundamental plane.
Super-classes	HorizontalCoordinateSystem

8.18. Class: geosrs:LocalCoordinateSystem

Table 61 — geosrs:LocalCoordinateSystem

URI	https://w3id.org/geosrs/cs/LocalCoordinateSystem
Definition	Coordinate system with a point of local reference.
Super-classes	LocalCoordinateSystem

8.19. Class: geosrs:ObliqueCoordinateSystem

Table 62 — geosrs:ObliqueCoordinateSystem

URI	https://w3id.org/geosrs/cs/ObliqueCoordinateSystem
Definition	A plane coordinate system whose axes are not perpendicular.
Super-classes	ObliqueCoordinateSystem

8.20. Class: geosrs:OrthogonalCoordinateSystem

Table 63 — geosrs:OrthogonalCoordinateSystem

URI	https://w3id.org/geosrs/cs/OrthogonalCoordinateSystem
Definition	A orthogonal coordinate system is a system of curvilinear coordinates in which each family of surfaces intersects the others at right angles.
Super-classes	OrthogonalCoordinateSystem

8.21. Class: geosrs:PerifocalCoordinateSystem

Table 64 — geosrs:PerifocalCoordinateSystem

URI	https://w3id.org/geosrs/cs/PerifocalCoordinateSystem
Definition	A frame of reference centered at the focus of the orbit, i.e. the celestial body about which the orbit is centered.
Super-classes	PerifocalCoordinateSystem

8.22. Class: geosrs:PlanarCoordinateSystem

Table 65 — geosrs:PlanarCoordinateSystem

URI	https://w3id.org/geosrs/cs/PlanarCoordinateSystem
Definition	A two-dimensional measurement system that locates features on a plane based on their distance from an origin (0,0) along two perpendicular axes.
Super-classes	PlanarCoordinateSystem

8.23. Class: geosrs:SkewCoordinateSystem

Table 66 — geosrs:SkewCoordinateSystem

URI	https://w3id.org/geosrs/cs/SkewCoordinateSystem
Definition	A skew coordinate system is a system of curvilinear coordinates in which each family of surfaces intersects the others at angles other than right angles.
Super-classes	SkewCoordinateSystem

8.24. Class: geosrs:DateTimeTemporalCoordinateSystem

Table 67 — geosrs:DateTimeTemporalCoordinateSystem

URI	https://w3id.org/geosrs/cs/DateTimeTemporalCoordinateSystem
Definition	One-dimensional coordinate system used to record time in dateTime representation as defined in ISO 8601.
Super-classes	DateTimeTemporalCoordinateSystem

8.25. Class: geosrs:TemporalCountCoordinateSystem

Table 68 — geosrs:TemporalCountCoordinateSystem

URI	https://w3id.org/geosrs/cs/TemporalCountCoordinateSystem
Definition	One-dimensional coordinate system used to record time as an integer count.
Super-classes	TemporalCountCoordinateSystem

8.26. Class: geosrs:TemporalCoordinateSystem

Table 69 — geosrs:TemporalCoordinateSystem

URI	https://w3id.org/geosrs/cs/TemporalCoordinateSystem
Definition	One-dimensional coordinate system where the axis is time.
Super-classes	TemporalCoordinateSystem

8.27. Class: geosrs:TemporalMeasureCoordinateSystem

Table 70 — geosrs:TemporalMeasureCoordinateSystem

URI	https://w3id.org/geosrs/cs/TemporalMeasureCoordinateSystem
Definition	One-dimensional coordinate system used to record a time as a real number.
Super-classes	TemporalMeasureCoordinateSystem

8.28. Class: geosrs:SuperGalacticCS

Table 71 — geosrs:SuperGalacticCS

URI	https://w3id.org/geosrs/cs/SuperGalacticCS
Definition	A reference frame for the supercluster of galaxies that contains the Milky Way galaxy, referenced to a local relatively flat collection of galaxy clusters used to define the supergalactic plane.
Super-classes	CelestialCoordinateSystem 3DCoordinateSystem

8.29. Property: geosrs:axisDirection

Table 72 — geosrs:axisDirection

URI	https://w3id.org/geosrs/cs/axisDirection
Type	owl:ObjectProperty
Definition	The direction of an axis. Cf. ISO 19111:2007:2007-07, table 27, attribute coordinate system axis direction.
Range	AxisDirection

Domain	<u>Axis</u>
--------	-------------

8.30. Property: geosrs:cylindricalCS

Table 73 — geosrs:cylindricalCS

URI	https://w3id.org/geosrs/cs/cylindricalCS
Type	<u>owl:ObjectProperty</u>
Definition	Links a coordinate reference system to a cylindrical coordinate system
Range	<u>CS</u>
Domain	<u>CRS</u>

9

DATUM MODULE

This clause establishes the **Datum** Requirements class, with IRI /req/datum, which has a corresponding Conformance Class, **Datum**, with IRI /conf/datum.

9.1. Class: geosrs:DynamicGeodeticReferenceFrame

Table 74 — geosrs:DynamicGeodeticReferenceFrame

URI	https://w3id.org/geosrs/datum/DynamicGeodeticReferenceFrame
Definition	Geodetic reference frame in which some of the parameters describe time evolution of defining station coordinatesExample: defining station coordinates having linear velocities to account for crustal motion.
Super-classes	DynamicGeodeticReferenceFrame

9.2. Class: geosrs:TriaxialEllipsoid

Table 75 — geosrs:TriaxialEllipsoid

URI	https://w3id.org/geosrs/datum/TriaxialEllipsoid
Definition	Surface of an analytic ellipsoid defined by three axes of different length. Also referred as scalene ellipsoid.

9.3. Class: geosrs:DynamicVerticalDatum

Table 76 — geosrs:DynamicVerticalDatum

URI	https://w3id.org/geosrs/datum/DynamicVerticalDatum
-----	---

Definition	Vertical reference frame in which some of the defining parameters have time dependencyExample: Defining station heights have velocity to account for post-glacial isostatic rebound motion. Cf. ISO 19111:2019 Geographic information — Referencing by coordinates.
Super-classes	<u>DynamicVerticalDatum</u>

9.4. Class: geosrs:ParametricDatum

Table 77 — geosrs:ParametricDatum

URI	<u>https://w3id.org/geosrs/datum/ParametricDatum</u>
Definition	Textual description and/or a set of parameters identifying a particular reference surface used as the origin of a parametric coordinate system, including its position with respect to the Earth. Cf. ISO 19111:2019 Geographic information — Referencing by coordinates.
Super-classes	<u>ParametricDatum</u>

9.5. Class: geosrs:DefiningParameter

Table 78 — geosrs:DefiningParameter

URI	<u>https://w3id.org/geosrs/datum/DefiningParameter</u>
Definition	Parameter value, an ordered sequence of values, or a reference to a file of parameter values that define a paramtric datum. Cf. ISO 19111:2019 Geographic information — Referencing by coordinates.

9.6. Class: geosrs:EngineeringDatum

Table 79 — geosrs:EngineeringDatum

URI	https://w3id.org/geosrs/datum/EngineeringDatum
Definition	Definition of the origin and orientation of an engineering coordinate reference systemNote: The origin can be fixed with respect to the Earth (such as a defined point at a construction site), or be a defined point on a moving vehicle (such as on a ship or satellite), or a defined point of an image. Cf. ISO 19111:2019 Geographic information — Referencing by coordinates.
Super-classes	EngineeringDatum

9.7. Class: geosrs:TemporalDatum

Table 80 — geosrs:TemporalDatum

URI	https://w3id.org/geosrs/datum/TemporalDatum
Definition	Definition of the relationship of a temporal coordinate system to an objectNote: The object is normally time on the Earth. Cf. ISO 19111:2019 Geographic information — Referencing by coordinates.
Super-classes	TemporalDatum

9.8. Class: geosrs:DatumEnsemble

Table 81 — geosrs:DatumEnsemble

URI	https://w3id.org/geosrs/datum/DatumEnsemble
Definition	A collection of two or more datums (or if geodetic or vertical, a collection of two or more reference frames) that are realizations of one Conventional Reference System and which for all but the highest accuracy requirements may be considered to be insignificantly different from each other. Note: Within the datum ensemble every frame or datum is constrained to be a realization of the same reference system. Cf. ISO

9.9. Property: geosrs:inverseFlattening

Table 82 — geosrs:inverseFlattening

URI	https://w3id.org/geosrs/datum/inverseFlattening
Type	owl:DatatypeProperty
Definition	Indicates the inverse flattening value of an ellipsoid, expressed as a number or a ratio (percentage rate, parts per million, etc.). Cf. ISO 19111:2007:2007-07, table 37, attribute inverse flattening
Range	xsd:double[xsd:double]
Domain	Ellipsoid

9.10. Property: geosrs:primeMeridian

Table 83 — geosrs:primeMeridian

URI	https://w3id.org/geosrs/datum/primeMeridian
Type	owl:ObjectProperty
Definition	The prime meridian used by a geodetic datum. Cf. ISO 19111:2007:2007-07, table 34, association role prime Meridian.
Range	PrimeMeridian
Domain	Datum

10

SRS APPLICATION MODULE

This clause establishes the **SRSAPP** Requirements class, with IRI /req/srsapp, which has a corresponding Conformance Class, **SRSAPP**, with IRI /conf/srsapp.



11

PROJECTIONS MODULE

This clause establishes the **PROJ** Requirements class, with IRI /req/proj, which has a corresponding Conformance Class, **PROJ**, with IRI /conf/proj.

11.1. Class: geosrs:A4Projection

Table 84 — geosrs:A4Projection

URI	https://w3id.org/geosrs/projection/A4Projection
Super-classes	A4Projection

11.2. Class: geosrs:AdamsProjection

Table 85 — geosrs:AdamsProjection

URI	https://w3id.org/geosrs/projection/AdamsProjection
Super-classes	AdamsProjection

11.3. Class: geosrs:AdamsWorldInASquareIIProjection

Table 86 — geosrs:AdamsWorldInASquareIIProjection

URI	https://w3id.org/geosrs/projection/AdamsWorldInASquareIIProjection
Super-classes	AdamsWorldInASquareIIProjection

11.4. Class: geosrs:AdamsWorldInASquareProjection

Table 87 — geosrs:AdamsWorldInASquareProjection

URI	https://w3id.org/geosrs/projection/AdamsWorldInASquareProjection
Super-classes	AdamsWorldInASquareProjection

11.5. Class: geosrs:AiryProjection

Table 88 — geosrs:AiryProjection

URI	https://w3id.org/geosrs/projection/AiryProjection
Definition	An azimuthal minimum error projection for the region within the small or great circle defined by an angular distance, from the tangency point of the plane
Super-classes	AiryProjection

11.6. Class: geosrs:AitoffObliqueProjection

Table 89 — geosrs:AitoffObliqueProjection

URI	https://w3id.org/geosrs/projection/AitoffObliqueProjection
Super-classes	AitoffObliqueProjection

11.7. Class: geosrs:AitoffProjection

Table 90 — geosrs:AitoffProjection

URI	https://w3id.org/geosrs/projection/AitoffProjection
Definition	A modified azimuthal projection whose graticule takes the form of an ellipse
Super-classes	AitoffProjection

11.8. Class: geosrs:AlbersEqualAreaProjection

Table 91 — geosrs:AlbersEqualAreaProjection

URI	https://w3id.org/geosrs/projection/AlbersEqualAreaProjection
Super-classes	AlbersEqualAreaProjection

11.9. Class: geosrs:AmericanPolyconicProjection

Table 92 — geosrs:AmericanPolyconicProjection

URI	https://w3id.org/geosrs/projection/AmericanPolyconicProjection
Super-classes	AmericanPolyconicProjection

11.10. Class: geosrs:ApianGlobularIProjection

Table 93 — geosrs:ApianGlobularIProjection

URI	https://w3id.org/geosrs/projection/ApianGlobularIProjection
Super-classes	ApianGlobularIProjection

11.11. Class: geosrs:ApianIIProjection

Table 94 — geosrs:ApianIIProjection

URI	https://w3id.org/geosrs/projection/ApianIIProjection
Super-classes	ApianIIProjection

11.12. Class: geosrs:ArchaicProjection

Table 95 — geosrs:ArchaicProjection

URI	https://w3id.org/geosrs/projection/ArchaicProjection
-----	---

11.13. Class: geosrs:ArdenCloseProjection

Table 96 — geosrs:ArdenCloseProjection

URI	https://w3id.org/geosrs/projection/ArdenCloseProjection
Super-classes	ArdenCloseProjection

11.14. Class: geosrs:ArmadilloProjection

Table 97 — geosrs:ArmadilloProjection

URI	https://w3id.org/geosrs/projection/ArmadilloProjection
Super-classes	ArmadilloProjection

11.15. Class: geosrs:AtlantisProjection

Table 98 — geosrs:AtlantisProjection

URI	https://w3id.org/geosrs/projection/AtlantisProjection
Super-classes	AtlantisProjection

11.16. Class: geosrs:AugustEpicycloidalProjection

Table 99 — geosrs:AugustEpicycloidalProjection

URI	https://w3id.org/geosrs/projection/AugustEpicycloidalProjection
Definition	A projection in which every angle between two curves that cross each other on a celestial body is preserved in the image of the projection
Super-classes	AugustEpicycloidalProjection

11.17. Class: geosrs:AuthaGraphProjection

Table 100 — geosrs:AuthaGraphProjection

URI	https://w3id.org/geosrs/projection/AuthaGraphProjection
Super-classes	AuthaGraphProjection

11.18. Class: geosrs:AzimuthalEqualAreaProjection

Table 101 — geosrs:AzimuthalEqualAreaProjection

URI	https://w3id.org/geosrs/projection/AzimuthalEqualAreaProjection
Super-classes	AzimuthalEqualAreaProjection

11.19. Class: geosrs:AzimuthalEquidistantProjection

Table 102 — geosrs:AzimuthalEquidistantProjection

URI	https://w3id.org/geosrs/projection/AzimuthalEquidistantProjection
Super-classes	AzimuthalEquidistantProjection

11.20. Class: geosrs:AzimuthalProjection

Table 103 — geosrs:AzimuthalProjection

URI	https://w3id.org/geosrs/projection/AzimuthalProjection
-----	---

11.21. Class: geosrs:BSAMCylindricalProjection

Table 104 — geosrs:BSAMCylindricalProjection

URI	https://w3id.org/geosrs/projection/BSAMCylindricalProjection
Super-classes	BSAMCylindricalProjection

11.22. Class: geosrs:BaconGlobularProjection

Table 105 — geosrs:BaconGlobularProjection

URI	https://w3id.org/geosrs/projection/BaconGlobularProjection
Super-classes	BaconGlobularProjection

11.23. Class: geosrs:BakerDinomicProjection

Table 106 — geosrs:BakerDinomicProjection

URI	https://w3id.org/geosrs/projection/BakerDinomicProjection
Super-classes	BakerDinomicProjection

11.24. Class: geosrs:BalthasartProjection

Table 107 — geosrs:BalthasartProjection

URI	https://w3id.org/geosrs/projection/BalthasartProjection
Definition	A cylindrical equal-area projection that uses a standard parallel of $\phi_s=50$ degrees
Super-classes	BalthasartProjection

11.25. Class: geosrs:BaranyIIIProjection

Table 108 — geosrs:BaranyillProjection

URI	https://w3id.org/geosrs/projection/BaranyillProjection
Super-classes	BaranyillProjection

11.26. Class: geosrs:BaranyillProjection

Table 109 — geosrs:BaranyillProjection

URI	https://w3id.org/geosrs/projection/BaranyillProjection
Super-classes	BaranyillProjection

11.27. Class: geosrs:BaranyilProjection

Table 110 — geosrs:BaranyilProjection

URI	https://w3id.org/geosrs/projection/BaranyilProjection
Super-classes	BaranyilProjection

11.28. Class: geosrs:BaranyilVProjection

Table 111 — geosrs:BaranyilVProjection

URI	https://w3id.org/geosrs/projection/BaranyilVProjection
Super-classes	BaranyilVProjection

11.29. Class: geosrs:BartholomewProjection

Table 112 — geosrs:BartholomewProjection

URI	https://w3id.org/geosrs/projection/BartholomewProjection
Super-classes	BartholomewProjection

11.30. Class: geosrs:BehrmannProjection

Table 113 — geosrs:BehrmannProjection

URI	https://w3id.org/geosrs/projection/BehrmannProjection
Definition	A cylindrical equal-area map projection with standard parallels set at 30° north and south
Super-classes	BehrmannProjection

11.31. Class: geosrs:BerghausStarProjection

Table 114 — geosrs:BerghausStarProjection

URI	https://w3id.org/geosrs/projection/BerghausStarProjection
Super-classes	BerghausStarProjection

11.32. Class: geosrs:BertinProjection

Table 115 — geosrs:BertinProjection

URI	https://w3id.org/geosrs/projection/BertinProjection
Super-classes	BertinProjection

11.33. Class: geosrs:BipolarObliqueConicConformalProjection

Table 116 — geosrs:BipolarObliqueConicConformalProjection

URI	https://w3id.org/geosrs/projection/BipolarObliqueConicConformalProjection
Super-classes	BipolarObliqueConicConformalProjection

11.34. Class: geosrs:BoggsEumorphicProjection

Table 117 — geosrs:BoggsEumorphicProjection

URI	https://w3id.org/geosrs/projection/BoggsEumorphicProjection
Super-classes	BoggsEumorphicProjection

11.35. Class: geosrs:BonneProjection

Table 118 — geosrs:BonneProjection

URI	https://w3id.org/geosrs/projection/BonneProjection
Super-classes	BonneProjection

11.36. Class: geosrs:BottomleyProjection

Table 119 — geosrs:BottomleyProjection

URI	https://w3id.org/geosrs/projection/BottomleyProjection
Super-classes	BottomleyProjection

11.37. Class: geosrs:BraunPerspectiveProjection

Table 120 — geosrs:BraunPerspectiveProjection

URI	https://w3id.org/geosrs/projection/BraunPerspectiveProjection
Super-classes	BraunPerspectiveProjection

11.38. Class: geosrs:BraunStereographicProjection

Table 121 — geosrs:BraunStereographicProjection

URI	https://w3id.org/geosrs/projection/BraunStereographicProjection
Super-classes	BraunStereographicProjection

11.39. Class: geosrs:BreusingGeometricProjection

Table 122 — geosrs:BreusingGeometricProjection

URI	https://w3id.org/geosrs/projection/BreusingGeometricProjection
-----	---

Super-classes

[BreusingGeometricProjection](#)

11.40. Class: geosrs:BreusingHarmonicProjection

Table 123 — geosrs:BreusingHarmonicProjection

URI	<u>https://w3id.org/geosrs/projection/BreusingHarmonicProjection</u>
Super-classes	<u>BreusingHarmonicProjection</u>

11.41. Class: geosrs:BriesemeisterProjection

Table 124 — geosrs:BriesemeisterProjection

URI	<u>https://w3id.org/geosrs/projection/BriesemeisterProjection</u>
Super-classes	<u>BriesemeisterProjection</u>

11.42. Class: geosrs:BromleyProjection

Table 125 — geosrs:BromleyProjection

URI	<u>https://w3id.org/geosrs/projection/BromleyProjection</u>
Super-classes	<u>BromleyProjection</u>

11.43. Class: geosrs:CabotProjection

Table 126 — geosrs:CabotProjection

URI	https://w3id.org/geosrs/projection/CabotProjection
Super-classes	CabotProjection

11.44. Class: geosrs:CahillKeyesProjection

Table 127 — geosrs:CahillKeyesProjection

URI	https://w3id.org/geosrs/projection/CahillKeyesProjection
Super-classes	CahillKeyesProjection

11.45. Class: geosrs:CassiniProjection

Table 128 — geosrs:CassiniProjection

URI	https://w3id.org/geosrs/projection/CassiniProjection
Definition	A map projection first described in an approximate form by César-François Cassini de Thury in 1745
Super-classes	CassiniProjection

11.46. Class: geosrs:CentralConicProjection

Table 129 — geosrs:CentralConicProjection

URI	https://w3id.org/geosrs/projection/CentralConicProjection
Super-classes	CentralConicProjection

11.47. Class: geosrs:CentralCylindricalProjection

Table 130 — geosrs:CentralCylindricalProjection

URI	https://w3id.org/geosrs/projection/CentralCylindricalProjection
Super-classes	CentralCylindricalProjection

11.48. Class: geosrs:ChamberlinTrimetricProjection

Table 131 — geosrs:ChamberlinTrimetricProjection

URI	https://w3id.org/geosrs/projection/ChamberlinTrimetricProjection
Super-classes	ChamberlinTrimetricProjection

11.49. Class: geosrs:CiriclProjection

Table 132 — geosrs:CiriclProjection

URI	https://w3id.org/geosrs/projection/CiriclProjection
Super-classes	CiriclProjection

11.50. Class: geosrs:CollignonButterflyProjection

Table 133 — geosrs:CollignonButterflyProjection

URI	https://w3id.org/geosrs/projection/CollignonButterflyProjection
-----	---

11.51. Class: geosrs:CollignonProjection

Table 134 — geosrs:CollignonProjection

URI	https://w3id.org/geosrs/projection/CollignonProjection
Definition	An equal-area pseudocylindrical projection that maps the sphere onto a triangle or diamond
Super-classes	CollignonProjection

11.52. Class: geosrs:ColombiaUrbanProjection

Table 135 — geosrs:ColombiaUrbanProjection

URI	https://w3id.org/geosrs/projection/ColombiaUrbanProjection
-----	---

11.53. Class: geosrs:CompactMillerProjection

Table 136 — geosrs:CompactMillerProjection

URI	https://w3id.org/geosrs/projection/CompactMillerProjection
Super-classes	CompactMillerProjection

11.54. Class: geosrs:CompromiseProjection

Table 137 — geosrs:CompromiseProjection

URI	https://w3id.org/geosrs/projection/CompromiseProjection
-----	---

11.55. Class: geosrs:ConformalProjection

Table 138 — geosrs:ConformalProjection

URI	https://w3id.org/geosrs/projection/ConformalProjection
-----	---

11.56. Class: geosrs:ConicalProjection

Table 139 — geosrs:ConicalProjection

URI	https://w3id.org/geosrs/projection/ConicalProjection
-----	---

11.57. Class: geosrs:CordiformProjection

Table 140 — geosrs:CordiformProjection

URI	https://w3id.org/geosrs/projection/CordiformProjection
-----	---

11.58. Class: geosrs:CoxConformalProjection

Table 141 — geosrs:CoxConformalProjection

URI	https://w3id.org/geosrs/projection/CoxConformalProjection
Super-classes	CoxConformalProjection

11.59. Class: geosrs:CraigRetroazimuthalProjection

Table 142 — geosrs:CraigRetroazimuthalProjection

URI	https://w3id.org/geosrs/projection/CraigRetroazimuthalProjection
Super-classes	CraigRetroazimuthalProjection

11.60. Class: geosrs:CrasterParabolicProjection

Table 143 — geosrs:CrasterParabolicProjection

URI	https://w3id.org/geosrs/projection/CrasterParabolicProjection
Super-classes	CrasterParabolicProjection

11.61. Class: geosrs:CupolaProjection

Table 144 — geosrs:CupolaProjection

URI	https://w3id.org/geosrs/projection/CupolaProjection
Super-classes	CupolaProjection

11.62. Class: geosrs:CylindricalEqualArea

Table 145 — geosrs:CylindricalEqualArea

URI	https://w3id.org/geosrs/projection/CylindricalEqualArea
-----	---

Super-classes

[CylindricalEqualArea](#)

11.63. Class: geosrs:CylindricalProjection

Table 146 — geosrs:CylindricalProjection

URI

<https://w3id.org/geosrs/projection/CylindricalProjection>

11.64. Class: geosrs:CylindricalStereographicProjection

Table 147 — geosrs:CylindricalStereographicProjection

URI

<https://w3id.org/geosrs/projection/CylindricalStereographicProjection>

Super-classes

[CylindricalStereographicProjection](#)

11.65. Class: geosrs:DeakinMinimumErrorProjection

Table 148 — geosrs:DeakinMinimumErrorProjection

URI

<https://w3id.org/geosrs/projection/DeakinMinimumErrorProjection>

Super-classes

[DeakinMinimumErrorProjection](#)

11.66. Class: geosrs:DedistortProjection

Table 149 — geosrs:DedistortProjection

URI	https://w3id.org/geosrs/projection/DedistortProjection
Super-classes	DedistortProjection

11.67. Class: geosrs:DenoyerSemiEllipticalProjection

Table 150 — geosrs:DenoyerSemiEllipticalProjection

URI	https://w3id.org/geosrs/projection/DenoyerSemiEllipticalProjection
Super-classes	DenoyerSemiEllipticalProjection

11.68. Class: geosrs:DietrichKitadaProjection

Table 151 — geosrs:DietrichKitadaProjection

URI	https://w3id.org/geosrs/projection/DietrichKitadaProjection
Super-classes	DietrichKitadaProjection

11.69. Class: geosrs:DodecahedralProjection

Table 152 — geosrs:DodecahedralProjection

URI	https://w3id.org/geosrs/projection/DodecahedralProjection
Super-classes	DodecahedralProjection

11.70. Class: geosrs:DymaxionProjection

Table 153 — geosrs:DymaxionProjection

URI	https://w3id.org/geosrs/projection/DymaxionProjection
Super-classes	DymaxionProjection

11.71. Class: geosrs:Eckert1Projection

Table 154 — geosrs:Eckert1Projection

URI	https://w3id.org/geosrs/projection/Eckert1Projection
Super-classes	Eckert1Projection

11.72. Class: geosrs:Eckert2Projection

Table 155 — geosrs:Eckert2Projection

URI	https://w3id.org/geosrs/projection/Eckert2Projection
Super-classes	Eckert2Projection

11.73. Class: geosrs:Eckert3Projection

Table 156 — geosrs:Eckert3Projection

URI	https://w3id.org/geosrs/projection/Eckert3Projection
-----	---

Super-classes	Eckert3Projection
---------------	-----------------------------------

11.74. Class: geosrs:Eckert4Projection

Table 157 — geosrs:Eckert4Projection

URI	https://w3id.org/geosrs/projection/Eckert4Projection
Super-classes	Eckert4Projection

11.75. Class: geosrs:Eckert5Projection

Table 158 — geosrs:Eckert5Projection

URI	https://w3id.org/geosrs/projection/Eckert5Projection
Super-classes	Eckert5Projection

11.76. Class: geosrs:Eckert6Projection

Table 159 — geosrs:Eckert6Projection

URI	https://w3id.org/geosrs/projection/Eckert6Projection
Super-classes	Eckert6Projection

11.77. Class: geosrs:EisenlohrProjection

Table 160 — geosrs:EisenlohrProjection

URI	https://w3id.org/geosrs/projection/EisenlohrProjection
Super-classes	EisenlohrProjection

11.78. Class: geosrs:EqualAreaProjection

Table 161 — geosrs:EqualAreaProjection

URI	https://w3id.org/geosrs/projection/EqualAreaProjection
-----	---

11.79. Class: geosrs:EqualEarthProjection

Table 162 — geosrs:EqualEarthProjection

URI	https://w3id.org/geosrs/projection/EqualEarthProjection
Super-classes	EqualEarthProjection

11.80. Class: geosrs:EquallySpacedParallelsProjection

Table 163 — geosrs:EquallySpacedParallelsProjection

URI	https://w3id.org/geosrs/projection/EquallySpacedParallelsProjection
-----	---

11.81. Class: geosrs:EquidistantConicProjection

Table 164 — geosrs:EquidistantConicProjection

URI	https://w3id.org/geosrs/projection/EquidistantConicProjection
Super-classes	EquidistantConicProjection

11.82. Class: geosrs:EquidistantCylindricalProjection

Table 165 — geosrs:EquidistantCylindricalProjection

URI	https://w3id.org/geosrs/projection/EquidistantCylindricalProjection
Super-classes	EquidistantCylindricalProjection

11.83. Class: geosrs:EquidistantProjection

Table 166 — geosrs:EquidistantProjection

URI	https://w3id.org/geosrs/projection/EquidistantProjection
-----	---

11.84. Class: geosrs:EquirectangularProjection

Table 167 — geosrs:EquirectangularProjection

URI	https://w3id.org/geosrs/projection/EquirectangularProjection
Super-classes	EquirectangularProjection

11.85. Class: geosrs:FaheyProjection

Table 168 — geosrs:FaheyProjection

URI	https://w3id.org/geosrs/projection/FaheyProjection
Super-classes	FaheyProjection

11.86. Class: geosrs:FairgrieveProjection

Table 169 — geosrs:FairgrieveProjection

URI	https://w3id.org/geosrs/projection/FairgrieveProjection
Super-classes	FairgrieveProjection

11.87. Class: geosrs:FoucautProjection

Table 170 — geosrs:FoucautProjection

URI	https://w3id.org/geosrs/projection/FoucautProjection
Super-classes	FoucautProjection

11.88. Class: geosrs:FoucautSinusoidalProjection

Table 171 — geosrs:FoucautSinusoidalProjection

URI	https://w3id.org/geosrs/projection/FoucautSinusoidalProjection
-----	---

Super-classes

[FoucautSinusoidalProjection](#)

11.89. Class: geosrs:FournierGlobularIProjection

Table 172 — geosrs:FournierGlobularIProjection

URI	https://w3id.org/geosrs/projection/FournierGlobularIProjection
Super-classes	FournierGlobularIProjection

11.90. Class: geosrs:FournierIIProjection

Table 173 — geosrs:FournierIIProjection

URI	https://w3id.org/geosrs/projection/FournierIIProjection
Super-classes	FournierIIProjection

11.91. Class: geosrs:FranculaIIIProjection

Table 174 — geosrs:FranculaIIIProjection

URI	https://w3id.org/geosrs/projection/FranculaIIIProjection
Super-classes	FranculaIIIProjection

11.92. Class: geosrs:FranculaIVProjection

Table 175 — geosrs:FraculaIVProjection

URI	https://w3id.org/geosrs/projection/FraculaIVProjection
Super-classes	FraculaIVProjection

11.93. Class: geosrs:FraculaXProjection

Table 176 — geosrs:FraculaXProjection

URI	https://w3id.org/geosrs/projection/FraculaXProjection
Super-classes	FraculaXProjection

11.94. Class: geosrs:FraculaVIIIProjection

Table 177 — geosrs:FraculaVIIIProjection

URI	https://w3id.org/geosrs/projection/FraculaVIIIProjection
Super-classes	FraculaVIIIProjection

11.95. Class: geosrs:FraculaVProjection

Table 178 — geosrs:FraculaVProjection

URI	https://w3id.org/geosrs/projection/FraculaVProjection
Super-classes	FraculaVProjection

11.96. Class: geosrs:FraculaXIIIProjection

Table 179 — geosrs:FraculaXIIIProjection

URI	https://w3id.org/geosrs/projection/FraculaXIIIProjection
Super-classes	FraculaXIIIProjection

11.97. Class: geosrs:FraculaXIIProjection

Table 180 — geosrs:FraculaXIIProjection

URI	https://w3id.org/geosrs/projection/FraculaXIIProjection
Super-classes	FraculaXIIProjection

11.98. Class: geosrs:FraculaXIVProjection

Table 181 — geosrs:FraculaXIVProjection

URI	https://w3id.org/geosrs/projection/FraculaXIVProjection
Super-classes	FraculaXIVProjection

11.99. Class: geosrs:GS50Projection

Table 182 — geosrs:GS50Projection

URI	https://w3id.org/geosrs/projection/GS50Projection
-----	---

11.100. Class: geosrs:GallSographicProjection

Table 183 — geosrs:GallSographicProjection

URI

[https://w3id.org/geosrs/projection/
GallSographicProjection](https://w3id.org/geosrs/projection/GallSographicProjection)

11.101. Class: geosrs:GallPetersProjection

Table 184 — geosrs:GallPetersProjection

URI

<https://w3id.org/geosrs/projection/GallPetersProjection>

Super-classes

[GallPetersProjection](#)

11.102. Class: geosrs:GallStereographicProjection

Table 185 — geosrs:GallStereographicProjection

URI

[https://w3id.org/geosrs/projection/
GallStereographicProjection](https://w3id.org/geosrs/projection/GallStereographicProjection)

Super-classes

[GallStereographicProjection](#)

11.103. Class: geosrs:GaussKruegerProjection

Table 186 — geosrs:GaussKruegerProjection

URI	https://w3id.org/geosrs/projection/GaussKruegerProjection
Super-classes	GaussKruegerProjection

11.104. Class: geosrs:GeneralVerticalPerspectiveProjection

Table 187 — geosrs:GeneralVerticalPerspectiveProjection

URI	https://w3id.org/geosrs/projection/GeneralVerticalPerspectiveProjection
Super-classes	GeneralVerticalPerspectiveProjection

11.105. Class: geosrs:GilbertTwoWorldPerspectiveProjection

Table 188 — geosrs:GilbertTwoWorldPerspectiveProjection

URI	https://w3id.org/geosrs/projection/GilbertTwoWorldPerspectiveProjection
Super-classes	GilbertTwoWorldPerspectiveProjection

11.106. Class: geosrs:GingeryProjection

Table 189 — geosrs:GingeryProjection

URI	https://w3id.org/geosrs/projection/GingeryProjection
-----	---

11.107. Class: geosrs:GinzburgIIProjection

Table 190 — geosrs:GinzburgIIProjection

URI	https://w3id.org/geosrs/projection/GinzburgIIProjection
Super-classes	GinzburgIIProjection

11.108. Class: geosrs:GinzburgIProjection

Table 191 — geosrs:GinzburgIProjection

URI	https://w3id.org/geosrs/projection/GinzburgIProjection
Super-classes	GinzburgIProjection

11.109. Class: geosrs:GinzburgIVProjection

Table 192 — geosrs:GinzburgIVProjection

URI	https://w3id.org/geosrs/projection/GinzburgIVProjection
Super-classes	GinzburgIVProjection

11.110. Class: geosrs:GinzburgIXProjection

Table 193 — geosrs:GinzburgIXProjection

URI	https://w3id.org/geosrs/projection/GinzburgIXProjection
-----	---

Super-classes

[GinzburgIXProjection](#)

11.111. Class: geosrs:GinzburgVIIIProjection

Table 194 — geosrs:GinzburgVIIIProjection

URI	<u>https://w3id.org/geosrs/projection/GinzburgVIIIProjection</u>
Super-classes	<u>GinzburgVIIIProjection</u>

11.112. Class: geosrs:GinzburgVIProjection

Table 195 — geosrs:GinzburgVIProjection

URI	<u>https://w3id.org/geosrs/projection/GinzburgVIProjection</u>
Super-classes	<u>GinzburgVIProjection</u>

11.113. Class: geosrs:GinzburgVProjection

Table 196 — geosrs:GinzburgVProjection

URI	<u>https://w3id.org/geosrs/projection/GinzburgVProjection</u>
Super-classes	<u>GinzburgVProjection</u>

11.114. Class: geosrs:GlobularProjection

Table 197 — geosrs:GlobularProjection

URI	https://w3id.org/geosrs/projection/GlobularProjection
-----	---

11.115. Class: geosrs:GnomonicButterflyProjection

Table 198 — geosrs:GnomonicButterflyProjection

URI	https://w3id.org/geosrs/projection/GnomonicButterflyProjection
Super-classes	GnomonicButterflyProjection

11.116. Class: geosrs:GnomonicCubedSphereProjection

Table 199 — geosrs:GnomonicCubedSphereProjection

URI	https://w3id.org/geosrs/projection/GnomonicCubedSphereProjection
Super-classes	GnomonicCubedSphereProjection

11.117. Class: geosrs:GnomonicIcosahedronProjection

Table 200 — geosrs:GnomonicIcosahedronProjection

URI	https://w3id.org/geosrs/projection/GnomonicIcosahedronProjection
Super-classes	GnomonicIcosahedronProjection

11.118. Class: geosrs:GnomonicProjection

Table 201 — geosrs:GnomonicProjection

URI	https://w3id.org/geosrs/projection/GnomonicProjection
Super-classes	GnomonicProjection

11.119. Class: geosrs:GoodeHomolosineProjection

Table 202 — geosrs:GoodeHomolosineProjection

URI	https://w3id.org/geosrs/projection/GoodeHomolosineProjection
Super-classes	GoodeHomolosineProjection

11.120. Class: geosrs:GottWagnerProjection

Table 203 — geosrs:GottWagnerProjection

URI	https://w3id.org/geosrs/projection/GottWagnerProjection
Super-classes	GottWagnerProjection

11.121. Class: geosrs:GringortenProjection

Table 204 — geosrs:GringortenProjection

URI	https://w3id.org/geosrs/projection/GringortenProjection
-----	---

Super-classes

[ConformalProjection](#) [EqualAreaProjection](#)

11.122. Class: geosrs:GringortenQuincuncialProjection

Table 205 — geosrs:GringortenQuincuncialProjection

URI

<https://w3id.org/geosrs/projection/GringortenQuincuncialProjection>

11.123. Class: geosrs:GuyouProjection

Table 206 — geosrs:GuyouProjection

URI

<https://w3id.org/geosrs/projection/GuyouProjection>

Super-classes

[GuyouProjection](#)

11.124. Class: geosrs:HEALPixProjection

Table 207 — geosrs:HEALPixProjection

URI

<https://w3id.org/geosrs/projection/HEALPixProjection>

Super-classes

[HEALPixProjection](#)

11.125. Class: geosrs:HammerProjection

Table 208 — geosrs:HammerProjection

URI	https://w3id.org/geosrs/projection/HammerProjection
Super-classes	HammerProjection

11.126. Class: geosrs:HammerRetroazimuthalProjection

Table 209 — geosrs:HammerRetroazimuthalProjection

URI	https://w3id.org/geosrs/projection/HammerRetroazimuthalProjection
Super-classes	HammerRetroazimuthalProjection

11.127. Class: geosrs:HamusoidalProjection

Table 210 — geosrs:HamusoidalProjection

URI	https://w3id.org/geosrs/projection/HamusoidalProjection
Super-classes	HamusoidalProjection

11.128. Class: geosrs:HatanoAsymmetricalEqualAreaProjection

Table 211 — geosrs:HatanoAsymmetricalEqualAreaProjection

URI	https://w3id.org/geosrs/projection/HatanoAsymmetricalEqualAreaProjection
Super-classes	HatanoAsymmetricalEqualAreaProjection

11.129. Class: geosrs:HerschelConformalConicProjection

Table 212 — geosrs:HerschelConformalConicProjection

URI	https://w3id.org/geosrs/projection/HerschelConformalConicProjection
Super-classes	HerschelConformalConicProjection

11.130. Class: geosrs:HillEucyclicProjection

Table 213 — geosrs:HillEucyclicProjection

URI	https://w3id.org/geosrs/projection/HillEucyclicProjection
Super-classes	HillEucyclicProjection

11.131. Class: geosrs:HoboDyerProjection

Table 214 — geosrs:HoboDyerProjection

URI	https://w3id.org/geosrs/projection/HoboDyerProjection
Super-classes	HoboDyerProjection

11.132. Class: geosrs:HufnagelIIIProjection

Table 215 — geosrs:HufnagelIIIProjection

URI	https://w3id.org/geosrs/projection/HufnagelIIIProjection
-----	---

11.133. Class: geosrs:HufnagellProjection

Table 216 — geosrs:HufnagellProjection

URI	https://w3id.org/geosrs/projection/HufnagellProjection
-----	---

11.134. Class: geosrs:HufnagellProjection

Table 217 — geosrs:HufnagellProjection

URI	https://w3id.org/geosrs/projection/HufnagellProjection
-----	---

11.135. Class: geosrs:HufnagellVProjection

Table 218 — geosrs:HufnagellVProjection

URI	https://w3id.org/geosrs/projection/HufnagellVProjection
-----	---

11.136. Class: geosrs:HufnagellXProjection

Table 219 — geosrs:HufnagellXProjection

URI	https://w3id.org/geosrs/projection/HufnagellXProjection
-----	---

11.137. Class: geosrs:HufnagelProjection

Table 220 — geosrs:HufnagelProjection

URI	https://w3id.org/geosrs/projection/HufnagelProjection
Super-classes	HufnagelProjection

11.138. Class: geosrs:HufnagelVIIIProjection

Table 221 — geosrs:HufnagelVIIIProjection

URI	https://w3id.org/geosrs/projection/HufnagelVIIIProjection
-----	---

11.139. Class: geosrs:HufnagelVIIProjection

Table 222 — geosrs:HufnagelVIIProjection

URI	https://w3id.org/geosrs/projection/HufnagelVIIProjection
-----	---

11.140. Class: geosrs:HufnagelVIProjection

Table 223 — geosrs:HufnagelVIProjection

URI	https://w3id.org/geosrs/projection/HufnagelVIProjection
-----	---

11.141. Class: geosrs:HufnagelVProjection

Table 224 — geosrs:HufnagelVProjection

URI	https://w3id.org/geosrs/projection/HufnagelVProjection
-----	---

11.142. Class: geosrs:HufnagelXIIProjection

Table 225 — geosrs:HufnagelXIIProjection

URI	https://w3id.org/geosrs/projection/HufnagelXIIProjection
-----	---

11.143. Class: geosrs:HufnagelXIProjection

Table 226 — geosrs:HufnagelXIProjection

URI	https://w3id.org/geosrs/projection/HufnagelXIProjection
-----	---

11.144. Class: geosrs:HufnagelXProjection

Table 227 — geosrs:HufnagelXProjection

URI	https://w3id.org/geosrs/projection/HufnagelXProjection
-----	---

11.145. Class: geosrs:IcosahedralProjection

Table 228 — geosrs:IcosahedralProjection

URI	https://w3id.org/geosrs/projection/IcosahedralProjection
Super-classes	IcosahedralProjection

11.146. Class: geosrs:InterruptedGoodeHomolosineOceanicViewProjection

Table 229 — geosrs:InterruptedGoodeHomolosineOceanicViewProjection

URI	https://w3id.org/geosrs/projection/InterruptedGoodeHomolosineOceanicViewProjection
-----	---

11.147. Class: geosrs:InterruptedGoodeHomolosineProjection

Table 230 — geosrs:InterruptedGoodeHomolosineProjection

URI	https://w3id.org/geosrs/projection/InterruptedGoodeHomolosineProjection
-----	---

11.148. Class: geosrs:InterruptedQuarticAuthalicProjection

Table 231 — geosrs:InterruptedQuarticAuthalicProjection

URI	https://w3id.org/geosrs/projection/InterruptedQuarticAuthalicProjection
Super-classes	InterruptedQuarticAuthalicProjection

11.149. Class: geosrs:JamesAzimuthalProjection

Table 232 — geosrs:JamesAzimuthalProjection

URI	https://w3id.org/geosrs/projection/JamesAzimuthalProjection
Super-classes	JamesAzimuthalProjection

11.150. Class: geosrs:KamenetskiyIProjection

Table 233 — geosrs:KamenetskiyIProjection

URI	https://w3id.org/geosrs/projection/KamenetskiyIProjection
Super-classes	KamenetskiyIProjection

11.151. Class: geosrs:KarchenkoShabanovaProjection

Table 234 — geosrs:KarchenkoShabanovaProjection

URI	https://w3id.org/geosrs/projection/KarchenkoShabanovaProjection
Super-classes	KarchenkoShabanovaProjection

11.152. Class: geosrs:Kavrayskiy7Projection

Table 235 — geosrs:Kavrayskiy7Projection

URI	https://w3id.org/geosrs/projection/Kavrayskiy7Projection
Super-classes	Kavrayskiy7Projection

11.153. Class: geosrs:KissProjection

Table 236 — geosrs:KissProjection

URI	https://w3id.org/geosrs/projection/KissProjection
Super-classes	KissProjection

11.154. Class: geosrs:Krovak

Table 237 — geosrs:Krovak

URI	https://w3id.org/geosrs/projection/Krovak
Super-classes	Krovak

11.155. Class: geosrs:LaHireProjection

Table 238 — geosrs:LaHireProjection

URI	https://w3id.org/geosrs/projection/LaHireProjection
Super-classes	LaHireProjection

11.156. Class: geosrs:LabordeProjection

Table 239 — geosrs:LabordeProjection

URI	https://w3id.org/geosrs/projection/LabordeProjection
-----	---

Super-classes	LabordeProjection
---------------	-----------------------------------

11.157. Class: geosrs:LagrangeProjection

Table 240 — geosrs:LagrangeProjection

URI	https://w3id.org/geosrs/projection/LagrangeProjection
Super-classes	LagrangeProjection

11.158. Class: geosrs:LambertAzimuthalEqualArea

Table 241 — geosrs:LambertAzimuthalEqualArea

URI	https://w3id.org/geosrs/projection/LambertAzimuthalEqualArea
Super-classes	LambertAzimuthalEqualArea

11.159. Class: geosrs:LambertConformalConicProjection

Table 242 — geosrs:LambertConformalConicProjection

URI	https://w3id.org/geosrs/projection/LambertConformalConicProjection
Super-classes	LambertConformalConicProjection

11.160. Class: geosrs:LambertCylindricalEqualAreaProjection

Table 243 — geosrs:LambertCylindricalEqualAreaProjection

URI	https://w3id.org/geosrs/projection/LambertCylindricalEqualAreaProjection
Super-classes	LambertCylindricalEqualAreaProjection

11.161. Class: geosrs:LarriveeProjection

Table 244 — geosrs:LarriveeProjection

URI	https://w3id.org/geosrs/projection/LarriveeProjection
Super-classes	LarriveeProjection

11.162. Class: geosrs:LaskowskiProjection

Table 245 — geosrs:LaskowskiProjection

URI	https://w3id.org/geosrs/projection/LaskowskiProjection
Super-classes	LaskowskiProjection

11.163. Class: geosrs:LatLonProjection

Table 246 — geosrs:LatLonProjection

URI	https://w3id.org/geosrs/projection/LatLonProjection
-----	---

11.164. Class: geosrs:LeeProjection

Table 247 — geosrs:LeeProjection

URI	https://w3id.org/geosrs/projection/LeeProjection
Super-classes	LeeProjection

11.165. Class: geosrs:LenticularProjection

Table 248 — geosrs:LenticularProjection

URI	https://w3id.org/geosrs/projection/LenticularProjection
-----	---

11.166. Class: geosrs:LittrowProjection

Table 249 — geosrs:LittrowProjection

URI	https://w3id.org/geosrs/projection/LittrowProjection
Super-classes	LittrowProjection

11.167. Class: geosrs:LonLatProjection

Table 250 — geosrs:LonLatProjection

URI	https://w3id.org/geosrs/projection/LonLatProjection
-----	---

11.168. Class: geosrs:LorgnaProjection

Table 251 — geosrs:LorgnaProjection

URI	https://w3id.org/geosrs/projection/LorgnaProjection
Super-classes	LorgnaProjection

11.169. Class: geosrs:LowryProjection

Table 252 — geosrs:LowryProjection

URI	https://w3id.org/geosrs/projection/LowryProjection
Super-classes	LowryProjection

11.170. Class: geosrs:LoximuthalProjection

Table 253 — geosrs:LoximuthalProjection

URI	https://w3id.org/geosrs/projection/LoximuthalProjection
Super-classes	LoximuthalProjection

11.171. Class: geosrs:MaurerNo73Projection

Table 254 — geosrs:MaurerNo73Projection

URI	https://w3id.org/geosrs/projection/MaurerNo73Projection
-----	---

11.172. Class: geosrs:MayrProjection

Table 255 — geosrs:MayrProjection

URI	https://w3id.org/geosrs/projection/MayrProjection
Super-classes	MayrProjection

11.173. Class: geosrs:McBrydeThomasFlatPolarParabolicProjection

Table 256 — geosrs:McBrydeThomasFlatPolarParabolicProjection

URI	https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarParabolicProjection
Super-classes	McBrydeThomasFlatPolarParabolicProjection

11.174. Class: geosrs:McBrydeThomasFlatPolarQuarticProjection

Table 257 — geosrs:McBrydeThomasFlatPolarQuarticProjection

URI	https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarQuarticProjection
Super-classes	McBrydeThomasFlatPolarQuarticProjection

11.175. Class: geosrs:McBrydeThomasFlatPolarSinusoidalProjection

Table 258 — geosrs:McBrydeThomasFlatPolarSinusoidalProjection

URI	https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarSinusoidalProjection
Super-classes	McBrydeThomasFlatPolarSinusoidalProjection

11.176. Class: geosrs:McBrydeThomasIIProjection

Table 259 — geosrs:McBrydeThomasIIProjection

URI	https://w3id.org/geosrs/projection/McBrydeThomasIIProjection
Super-classes	McBrydeThomasIIProjection

11.177. Class: geosrs:McBrydeThomasIProjection

Table 260 — geosrs:McBrydeThomasIProjection

URI	https://w3id.org/geosrs/projection/McBrydeThomasIProjection
Super-classes	McBrydeThomasIProjection

11.178. Class: geosrs:MercatorProjection

Table 261 — geosrs:MercatorProjection

URI	https://w3id.org/geosrs/projection/MercatorProjection
Super-classes	MercatorProjection

11.179. Class: geosrs:MillerOblatedStereographicProjection

Table 262 — geosrs:MillerOblatedStereographicProjection

URI	https://w3id.org/geosrs/projection/MillerOblatedStereographicProjection
Super-classes	MillerOblatedStereographicProjection

11.180. Class: geosrs:MillerProjection

Table 263 — geosrs:MillerProjection

URI	https://w3id.org/geosrs/projection/MillerProjection
Super-classes	MillerProjection

11.181. Class: geosrs:MinimumErrorProjection

Table 264 — geosrs:MinimumErrorProjection

URI	https://w3id.org/geosrs/projection/MinimumErrorProjection
-----	---

11.182. Class: geosrs:MollweideProjection

Table 265 — geosrs:MollweideProjection

URI	https://w3id.org/geosrs/projection/MollweideProjection
Super-classes	EqualAreaProjection PseudoCylindricalProjection

11.183. Class: geosrs:MurdochIIIProjection

Table 266 — geosrs:MurdochIIIProjection

URI	https://w3id.org/geosrs/projection/MurdochIIIProjection
Super-classes	MurdochIIIProjection

11.184. Class: geosrs:MurdochIIProjection

Table 267 — geosrs:MurdochIIProjection

URI	https://w3id.org/geosrs/projection/MurdochIIProjection
Super-classes	MurdochIIProjection

11.185. Class: geosrs:MurdochIProjection

Table 268 — geosrs:MurdochIProjection

URI	https://w3id.org/geosrs/projection/MurdochIProjection
-----	---

Super-classes	MurdochIProjection
---------------	------------------------------------

11.186. Class: geosrs:MyrahedalProjection

Table 269 — geosrs:MyrahedalProjection

URI	https://w3id.org/geosrs/projection/MyrahedalProjection
Super-classes	MyrahedalProjection

11.187. Class: geosrs:NaturalEarth2Projection

Table 270 — geosrs:NaturalEarth2Projection

URI	https://w3id.org/geosrs/projection/NaturalEarth2Projection
Super-classes	NaturalEarth2Projection

11.188. Class: geosrs:NaturalEarthProjection

Table 271 — geosrs:NaturalEarthProjection

URI	https://w3id.org/geosrs/projection/NaturalEarthProjection
Definition	A pseudocylindrical map projection designed by Tom Patterson and introduced in 2008
Super-classes	NaturalEarthProjection

11.189. Class: geosrs:NellHammerProjection

Table 272 — geosrs:NellHammerProjection

URI	https://w3id.org/geosrs/projection/NellHammerProjection
Super-classes	NellHammerProjection

11.190. Class: geosrs:NellProjection

Table 273 — geosrs:NellProjection

URI	https://w3id.org/geosrs/projection/NellProjection
Super-classes	NellProjection

11.191. Class: geosrs:NicolosiGlobularProjection

Table 274 — geosrs:NicolosiGlobularProjection

URI	https://w3id.org/geosrs/projection/NicolosiGlobularProjection
Super-classes	NicolosiGlobularProjection

11.192. Class: geosrs:NordicProjection

Table 275 — geosrs:NordicProjection

URI	https://w3id.org/geosrs/projection/NordicProjection
-----	---

11.193. Class: geosrs:ObliqueCylindricalEqualAreaProjection

Table 276 — geosrs:ObliqueCylindricalEqualAreaProjection

URI	https://w3id.org/geosrs/projection/ObliqueCylindricalEqualAreaProjection
Super-classes	ObliqueCylindricalEqualAreaProjection

11.194. Class: geosrs:ObliqueMercatorProjection

Table 277 — geosrs:ObliqueMercatorProjection

URI	https://w3id.org/geosrs/projection/ObliqueMercatorProjection
Super-classes	ObliqueMercatorProjection

11.195. Class: geosrs:ObliquePlateCarreeProjection

Table 278 — geosrs:ObliquePlateCarreeProjection

URI	https://w3id.org/geosrs/projection/ObliquePlateCarreeProjection
Super-classes	ObliquePlateCarreeProjection

11.196. Class: geosrs:ObliqueProjection

Table 279 — geosrs:ObliqueProjection

URI	https://w3id.org/geosrs/projection/ObliqueProjection
-----	---

11.197. Class: geosrs:ObliqueStereographicProjection

Table 280 — geosrs:ObliqueStereographicProjection

URI	https://w3id.org/geosrs/projection/ObliqueStereographicProjection
Super-classes	ObliqueStereographicProjection

11.198. Class: geosrs:OctantProjection

Table 281 — geosrs:OctantProjection

URI	https://w3id.org/geosrs/projection/OctantProjection
Super-classes	OctantProjection

11.199. Class: geosrs:OrteliusOvalProjection

Table 282 — geosrs:OrteliusOvalProjection

URI	https://w3id.org/geosrs/projection/OrteliusOvalProjection
Super-classes	OrteliusOvalProjection

11.200. Class: geosrs:OrthographicProjection

Table 283 — geosrs:OrthographicProjection

URI	https://w3id.org/geosrs/projection/OrthographicProjection
Super-classes	OrthographicProjection

11.201. Class: geosrs:OvalProjection

Table 284 — geosrs:OvalProjection

URI	https://w3id.org/geosrs/projection/OvalProjection
-----	---

11.202. Class: geosrs:PattersonCylindricalProjection

Table 285 — geosrs:PattersonCylindricalProjection

URI	https://w3id.org/geosrs/projection/PattersonCylindricalProjection
Super-classes	PattersonCylindricalProjection

11.203. Class: geosrs:PavlovProjection

Table 286 — geosrs:PavlovProjection

URI	https://w3id.org/geosrs/projection/PavlovProjection
Super-classes	PavlovProjection

11.204. Class: geosrs:PeirceQuincuncialProjection

Table 287 — geosrs:PeirceQuincuncialProjection

URI	https://w3id.org/geosrs/projection/PeirceQuincuncialProjection
Super-classes	PeirceQuincuncialProjection

11.205. Class: geosrs:PerspectiveConicProjection

Table 288 — geosrs:PerspectiveConicProjection

URI	https://w3id.org/geosrs/projection/PerspectiveConicProjection
Super-classes	PerspectiveConicProjection

11.206. Class: geosrs:PerspectiveProjection

Table 289 — geosrs:PerspectiveProjection

URI	https://w3id.org/geosrs/projection/PerspectiveProjection
-----	---

11.207. Class: geosrs:PetermannStarProjection

Table 290 — geosrs:PetermannStarProjection

URI	https://w3id.org/geosrs/projection/PetermannStarProjection
Super-classes	PetermannStarProjection

11.208. Class: geosrs:PlateCarreeProjection

Table 291 — geosrs:PlateCarreeProjection

URI	https://w3id.org/geosrs/projection/PlateCarreeProjection
Super-classes	PlateCarreeProjection

11.209. Class: geosrs:PoleLineProjection

Table 292 — geosrs:PoleLineProjection

URI	https://w3id.org/geosrs/projection/PoleLineProjection
-----	---

11.210. Class: geosrs:PolyconicProjection

Table 293 — geosrs:PolyconicProjection

URI	https://w3id.org/geosrs/projection/PolyconicProjection
-----	---

11.211. Class: geosrs:PolyhedralProjection

Table 294 — geosrs:PolyhedralProjection

URI	https://w3id.org/geosrs/projection/PolyhedralProjection
-----	---

11.212. Class: geosrs:Projection

Table 295 — geosrs:Projection

URI	https://w3id.org/geosrs/projection/Projection
Super-classes	Projection

11.213. Class: geosrs:PseudoAzimuthalProjection

Table 296 — geosrs:PseudoAzimuthalProjection

URI	https://w3id.org/geosrs/projection/ PseudoAzimuthalProjection
-----	--

11.214. Class: geosrs:PseudoConicalProjection

Table 297 — geosrs:PseudoConicalProjection

URI	https://w3id.org/geosrs/projection/ PseudoConicalProjection
-----	--

11.215. Class: geosrs:PseudoCylindricalProjection

Table 298 — geosrs:PseudoCylindricalProjection

URI	https://w3id.org/geosrs/projection/ PseudoCylindricalProjection
-----	--

11.216. Class: geosrs:PseudoOrthographicProjection

Table 299 — geosrs:PseudoOrthographicProjection

URI	https://w3id.org/geosrs/projection/PseudoOrthographicProjection
-----	---

11.217. Class: geosrs:PtolemyIIProjection

Table 300 — geosrs:PtolemyIIProjection

URI	https://w3id.org/geosrs/projection/PtolemyIIProjection
Super-classes	PtolemyIProjection

11.218. Class: geosrs:PtolemyIProjection

Table 301 — geosrs:PtolemyIProjection

URI	https://w3id.org/geosrs/projection/PtolemyIProjection
Super-classes	PtolemyIIProjection

11.219. Class: geosrs:PutninsP1Projection

Table 302 — geosrs:PutninsP1Projection

URI	https://w3id.org/geosrs/projection/PutninsP1Projection
Super-classes	PutninsP2Projection

11.220. Class: geosrs:PutninsP2Projection

Table 303 — geosrs:PutninsP2Projection

URI	https://w3id.org/geosrs/projection/PutninsP2Projection
Super-classes	PutninsP2Projection

11.221. Class: geosrs:PutninsP3Projection

Table 304 — geosrs:PutninsP3Projection

URI	https://w3id.org/geosrs/projection/PutninsP3Projection
Super-classes	PutninsP3Projection

11.222. Class: geosrs:PutninsP5Projection

Table 305 — geosrs:PutninsP5Projection

URI	https://w3id.org/geosrs/projection/PutninsP5Projection
Super-classes	PutninsP5Projection

11.223. Class: geosrs:PutninsP6Projection

Table 306 — geosrs:PutninsP6Projection

URI	https://w3id.org/geosrs/projection/PutninsP6Projection
-----	---

11.224. Class: geosrs:QuadrilateralizedSphericalCubeProjection

Table 307 — geosrs:QuadrilateralizedSphericalCubeProjection

URI	https://w3id.org/geosrs/projection/QuadrilateralizedSphericalCubeProjection
Super-classes	QuadrilateralizedSphericalCubeProjection

11.225. Class: geosrs:QuarticAuthalicProjection

Table 308 — geosrs:QuarticAuthalicProjection

URI	https://w3id.org/geosrs/projection/QuarticAuthalicProjection
Super-classes	QuarticAuthalicProjection

11.226. Class: geosrs:RectangularPolyconicProjection

Table 309 — geosrs:RectangularPolyconicProjection

URI	https://w3id.org/geosrs/projection/RectangularPolyconicProjection
Super-classes	RectangularPolyconicProjection

11.227. Class: geosrs:RetroazimuthalProjection

Table 310 — geosrs:RetroazimuthalProjection

URI	https://w3id.org/geosrs/projection/RetroazimuthalProjection
-----	---

11.228. Class: geosrs:RobinsonProjection

Table 311 — geosrs:RobinsonProjection

URI	https://w3id.org/geosrs/projection/RobinsonProjection
Super-classes	RobinsonProjection

11.229. Class: geosrs:RoussilheProjection

Table 312 — geosrs:RoussilheProjection

URI	https://w3id.org/geosrs/projection/RoussilheProjection
Super-classes	RoussilheProjection

11.230. Class: geosrs:SchjerningIProjection

Table 313 — geosrs:SchjerningIProjection

URI	https://w3id.org/geosrs/projection/SchjerningIProjection
Super-classes	SchjerningIProjection

11.231. Class: geosrs:SinusoidalProjection

Table 314 — geosrs:SinusoidalProjection

URI	https://w3id.org/geosrs/projection/SinusoidalProjection
Super-classes	SinusoidalProjection

11.232. Class: geosrs:SmythEqualSurfaceProjection

Table 315 — geosrs:SmythEqualSurfaceProjection

URI	https://w3id.org/geosrs/projection/SmythEqualSurfaceProjection
Super-classes	SmythEqualSurfaceProjection

11.233. Class: geosrs:SpaceObliqueMercatorProjection

Table 316 — geosrs:SpaceObliqueMercatorProjection

URI	https://w3id.org/geosrs/projection/SpaceObliqueMercatorProjection
-----	---

11.234. Class: geosrs:SpilhausOceanicProjection

Table 317 — geosrs:SpilhausOceanicProjection

URI	https://w3id.org/geosrs/projection/SpilhausOceanicProjection
Super-classes	SpilhausOceanicProjection

11.235. Class: geosrs:StabiusWernerIIIProjection

Table 318 — geosrs:StabiusWernerIIIProjection

URI	https://w3id.org/geosrs/projection/StabiusWernerIIIProjection
Super-classes	StabiusWernerIIIProjection

11.236. Class: geosrs:StabiusWernerIIProjection

Table 319 — geosrs:StabiusWernerIIProjection

URI	https://w3id.org/geosrs/projection/StabiusWernerIIProjection
Super-classes	StabiusWernerIIProjection

11.237. Class: geosrs:StabiusWernerIProjection

Table 320 — geosrs:StabiusWernerIProjection

URI	https://w3id.org/geosrs/projection/StabiusWernerIProjection
Super-classes	StabiusWernerIProjection

11.238. Class: geosrs:StereographicProjection

Table 321 — geosrs:StereographicProjection

URI	https://w3id.org/geosrs/projection/StereographicProjection
-----	---

Super-classes

[StereographicProjection](#)

11.239. Class: geosrs:Strebe1995Projection

Table 322 — geosrs:Strebe1995Projection

URI	https://w3id.org/geosrs/projection/Strebe1995Projection
Super-classes	Strebe1995Projection

11.240. Class: geosrs:TheTimesProjection

Table 323 — geosrs:TheTimesProjection

URI	https://w3id.org/geosrs/projection/TheTimesProjection
Super-classes	TheTimesProjection

11.241. Class: geosrs:TiltedPerspectiveProjection

Table 324 — geosrs:TiltedPerspectiveProjection

URI	https://w3id.org/geosrs/projection/TiltedPerspectiveProjection
Super-classes	TiltedPerspectiveProjection

11.242. Class: geosrs:ToblerCylindricalIIProjection

Table 325 — geosrs:ToblerCylindricalIIIProjection

URI	https://w3id.org/geosrs/projection/ToblerCylindricalIIIProjection
Super-classes	ToblerCylindricalIIIProjection

11.243. Class: geosrs:ToblerCylindricalIProjection

Table 326 — geosrs:ToblerCylindricalIProjection

URI	https://w3id.org/geosrs/projection/ToblerCylindricalIProjection
Super-classes	ToblerCylindricalIProjection

11.244. Class: geosrs:ToblerG1Projection

Table 327 — geosrs:ToblerG1Projection

URI	https://w3id.org/geosrs/projection/ToblerG1Projection
Super-classes	ToblerG1Projection

11.245. Class: geosrs:ToblerHyperellipticalProjection

Table 328 — geosrs:ToblerHyperellipticalProjection

URI	https://w3id.org/geosrs/projection/ToblerHyperellipticalProjection
Super-classes	ToblerHyperellipticalProjection

11.246. Class: geosrs:ToblerWorldInASquareProjection

Table 329 — geosrs:ToblerWorldInASquareProjection

URI	https://w3id.org/geosrs/projection/ToblerWorldInASquareProjection
Super-classes	ToblerWorldInASquareProjection

11.247. Class: geosrs:TransverseCylindricalEqualAreaProjection

Table 330 — geosrs:TransverseCylindricalEqualAreaProjection

URI	https://w3id.org/geosrs/projection/TransverseCylindricalEqualAreaProjection
Super-classes	TransverseCylindricalEqualAreaProjection

11.248. Class: geosrs:TransverseMercatorProjection

Table 331 — geosrs:TransverseMercatorProjection

URI	https://w3id.org/geosrs/projection/TransverseMercatorProjection
Super-classes	TransverseMercatorProjection

11.249. Class: geosrs:TrystanEdwardsProjection

Table 332 — geosrs:TrystanEdwardsProjection

URI	https://w3id.org/geosrs/projection/TrystanEdwardsProjection
Super-classes	TrystanEdwardsProjection

11.250. Class: geosrs:TwoPointEquidistantProjection

Table 333 — geosrs:TwoPointEquidistantProjection

URI	https://w3id.org/geosrs/projection/TwoPointEquidistantProjection
Super-classes	TwoPointEquidistantProjection

11.251. Class: geosrs:UniversalTransverseMercatorProjection

Table 334 — geosrs:UniversalTransverseMercatorProjection

URI	https://w3id.org/geosrs/projection/UniversalTransverseMercatorProjection
-----	---

11.252. Class: geosrs:UrmayevIIIProjection

Table 335 — geosrs:UrmayevIIIProjection

URI	https://w3id.org/geosrs/projection/UrmayevIIIProjection
Super-classes	UrmayevIIIProjection

11.253. Class: geosrs:VanDerGrintenIIIProjection

Table 336 — geosrs:VanDerGrintenIIIProjection

URI	https://w3id.org/geosrs/projection/VanDerGrintenIIIProjection
Super-classes	VanDerGrintenIIIProjection

11.254. Class: geosrs:VanDerGrintenIIProjection

Table 337 — geosrs:VanDerGrintenIIProjection

URI	https://w3id.org/geosrs/projection/VanDerGrintenIIProjection
Super-classes	VanDerGrintenIIProjection

11.255. Class: geosrs:VanDerGrintenIProjection

Table 338 — geosrs:VanDerGrintenIProjection

URI	https://w3id.org/geosrs/projection/VanDerGrintenIProjection
Super-classes	VanDerGrintenIProjection

11.256. Class: geosrs:VanDerGrintenIVProjection

Table 339 — geosrs:VanDerGrintenIVProjection

URI	https://w3id.org/geosrs/projection/VanDerGrintenIVProjection
-----	---

11.257. Class: geosrs:VerticalPerspectiveProjection

Table 340 — geosrs:VerticalPerspectiveProjection

URI	https://w3id.org/geosrs/projection/VerticalPerspectiveProjection
Super-classes	VerticalPerspectiveProjection

11.258. Class: geosrs:VitkovskyIProjection

Table 341 — geosrs:VitkovskyIProjection

URI	https://w3id.org/geosrs/projection/VitkovskyIProjection
Super-classes	VitkovskyIProjection

11.259. Class: geosrs:WagnerIIIProjection

Table 342 — geosrs:WagnerIIIProjection

URI	https://w3id.org/geosrs/projection/WagnerIIIProjection
Super-classes	WagnerIIIProjection

11.260. Class: geosrs:WagnerIIProjection

Table 343 — geosrs:WagnerIIProjection

URI	https://w3id.org/geosrs/projection/WagnerIIProjection
Super-classes	WagnerIIProjection

11.261. Class: geosrs:WagnerIProjection

Table 344 — geosrs:WagnerIProjection

URI	https://w3id.org/geosrs/projection/WagnerIProjection
Super-classes	WagnerIProjection

11.262. Class: geosrs:WagnerIVProjection

Table 345 — geosrs:WagnerIVProjection

URI	https://w3id.org/geosrs/projection/WagnerIVProjection
Super-classes	WagnerIVProjection

11.263. Class: geosrs:WagnerIXProjection

Table 346 — geosrs:WagnerIXProjection

URI	https://w3id.org/geosrs/projection/WagnerIXProjection
Super-classes	WagnerIXProjection

11.264. Class: geosrs:WagnerVIIIProjection

Table 347 — geosrs:WagnerVIIIProjection

URI	https://w3id.org/geosrs/projection/WagnerVIIIProjection
Super-classes	WagnerVIIIProjection

11.265. Class: geosrs:WagnerVIIProjection

Table 348 — geosrs:WagnerVIIProjection

URI	https://w3id.org/geosrs/projection/WagnerVIIProjection
Super-classes	WagnerVIIProjection

11.266. Class: geosrs:WagnerVIProjection

Table 349 — geosrs:WagnerVIProjection

URI	https://w3id.org/geosrs/projection/WagnerVIProjection
Super-classes	WagnerVIProjection

11.267. Class: geosrs:WagnerVProjection

Table 350 — geosrs:WagnerVProjection

URI	https://w3id.org/geosrs/projection/WagnerVProjection
-----	---

Super-classes

[WagnerVProjection](#)

11.268. Class: geosrs:WatermanButterflyProjection

Table 351 — geosrs:WatermanButterflyProjection

URI	https://w3id.org/geosrs/projection/WatermanButterflyProjection
Super-classes	WatermanButterflyProjection

11.269. Class: geosrs:WebMercatorProjection

Table 352 — geosrs:WebMercatorProjection

URI	https://w3id.org/geosrs/projection/WebMercatorProjection
Super-classes	WebMercatorProjection

11.270. Class: geosrs:WerenskioldIProjection

Table 353 — geosrs:WerenskioldIProjection

URI	https://w3id.org/geosrs/projection/WerenskioldIProjection
Super-classes	WerenskioldIProjection

11.271. Class: geosrs:WernerProjection

Table 354 — geosrs:WernerProjection

URI	https://w3id.org/geosrs/projection/WernerProjection
Super-classes	WernerProjection

11.272. Class: geosrs:WiechelProjection

Table 355 — geosrs:WiechelProjection

URI	https://w3id.org/geosrs/projection/WichelProjection
Super-classes	WiechelProjection

11.273. Class: geosrs:WinkelIIProjection

Table 356 — geosrs:WinkelIIProjection

URI	https://w3id.org/geosrs/projection/WinkelIIProjection
Super-classes	WinkelIIProjection

11.274. Class: geosrs:WinkelIProjection

Table 357 — geosrs:WinkelIProjection

URI	https://w3id.org/geosrs/projection/WinkelIProjection
Super-classes	WinkelIProjection

11.275. Class: geosrs:WinkelSnyderProjection

Table 358 — geosrs:WinkelSnyderProjection

URI	https://w3id.org/geosrs/projection/WinkelSnyderProjection
Super-classes	WinkelSnyderProjection

11.276. Class: geosrs:WinkelTripelProjection

Table 359 — geosrs:WinkelTripelProjection

URI	https://w3id.org/geosrs/projection/WinkelTripelProjection
Super-classes	WinkelTripelProjection

11.277. Class: geosrs:PutninsP3'Projection

Table 360 — geosrs:PutninsP3'Projection

URI	https://w3id.org/geosrs/projection/PutninsP3'Projection
Super-classes	PutninsP3'Projection

11.278. Class: geosrs:PutninsP4'Projection

Table 361 — geosrs:PutninsP4'Projection

URI	https://w3id.org/geosrs/projection/PutninsP4'Projection
-----	---

Super-classes

[PutninsP4'Projection](#)

11.279. Class: geosrs:PutninsP5'Projection

Table 362 — geosrs:PutninsP5'Projection

URI

<https://w3id.org/geosrs/projection/PutninsP5'Projection>

Super-classes

[PutninsP5'Projection](#)

11.280. Class: geosrs:PutninsP6'Projection

Table 363 — geosrs:PutninsP6'Projection

URI

<https://w3id.org/geosrs/projection/PutninsP6'Projection>

Super-classes

[PutninsP6'Projection](#)

11.281. Class: geosrs:MollweideWagnerProjection

Table 364 — geosrs:MollweideWagnerProjection

URI

<https://w3id.org/geosrs/projection/MollweideWagnerProjection>



12

PLANET MODULE

This clause establishes the **PLANET** Requirements class, with IRI /req/planet, which has a corresponding Conformance Class, **PLANET**, with IRI /conf/planet.



ANNEX A (INFORMATIVE) ALIGNMENTS



ANNEX A (INFORMATIVE) ALIGNMENTS

Overview

Overview

The prefixes used for the ontologies mapped to in all following sections are given in the following table.

Table A.1 — Alignment: Namespaces

ign:	http://data.ign.fr/def/ignf#
iso19111:	http://def.isotc211.org/iso19112/2019/SpatialReferencingByGeographicIdentifier#
geosrs:	http://www.opengis.net/ont/geosparql#
ifc:	https://standards.buildingsmart.org/IFC/DEV/IFC4/ADD2_TC1/OWL/
owl:	http://www.w3.org/2002/07/owl#
prov:	http://www.w3.org/ns/prov#
rdf:	http://www.w3.org/1999/02/22-rdf-syntax-ns#
rdfs:	http://www.w3.org/2000/01/rdf-schema#

A.1. IGN Ontology

Table A.2 – Alignment: IGN Ontology

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
geosrs:CoordinateSystem	owl:equivalentClass	ign:CoordinateSystem	-
geosrs:Datum	owl:equivalentClass	ign:Datum	-
geosrs:Ellipsoid	owl:equivalentClass	ign:Ellipsoid	-
geosrs:Conversion	owl:equivalentClass	ign:Conversion	-
geosrs:CoordinateOperation	owl:equivalentClass	ign:CoordinateOperation	-
geosrs:OperationMethod	owl:equivalentClass	ign:OperationMethod	-
geosrs:OperationParameter	owl:equivalentClass	ign:OperationParameter	-
geosrs:OperationParameterValue	owl:equivalentClass	ign:OperationParameterValue	-
geosrs:SingleOperation	owl:equivalentClass	ign:SingleOperation	-
geosrs:Transformation	owl:equivalentClass	ign:Transformation	-
geosrs:CartesianCoordinateSystem	owl:equivalentClass	ign:CartesianCS	-
geosrs:CoordinateSystem	owl:equivalentClass	ign:CoordinateSystem	-
geosrs:CoordinateSystemAxis	owl:equivalentClass	ign:CoordinateSystemAxis	-
geosrs:EllipsoidalCoordinateSystem	owl:equivalentClass	ign:EllipsoidalCS	-
geosrs:VerticalCoordinateSystem	owl:equivalentClass	ign:VerticalCS	-
geosrs:Datum	owl:equivalentClass	ign:Datum	-
geosrs:Ellipsoid	owl:equivalentClass	ign:Ellipsoid	-
geosrs:GeodeticDatum	owl:equivalentClass	ign:GeodeticDatum	-
geosrs:PrimeMeridian	owl:equivalentClass	ign:PrimeMeridian	-
geosrs:VerticalDatum	owl:equivalentClass	ign:VerticalDatum	-
geosrs:AxesList	owl:equivalentClass	ign:AxesList	-

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
geosrs:CRS	owl:equivalentClass	ign:CRS	-
geosrs:CompoundCRS	owl:equivalentClass	ign:CompoundCRS	-
geosrs:Extent	owl:equivalentClass	ign:Extent	-
geosrs:GeodeticCRS	owl:equivalentClass	ign:GeodeticCRS	-
geosrs:GeographicBoundingBox	owl:equivalentClass	ign:GeographicBoundingBox	-
geosrs:ProjectedCRS	owl:equivalentClass	ign:ProjectedCRS	-
geosrs:SingleCRS	owl:equivalentClass	ign:SingleCRS	-
geosrs:SingleCRSList	owl:equivalentClass	ign:SingleCRSList	-
geosrs:VerticalCRS	owl:equivalentClass	ign:VerticalCRS	-

A.2. ISO19111 Ontology

Table A.3 – Alignment: ISO19111 Ontology

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
geosrs:CoordinateSystem	owl:equivalentClass	iso19111:CoordinateSystem	-
geosrs:Datum	owl:equivalentClass	iso19111:Datum	-
geosrs:Ellipsoid	owl:equivalentClass	iso19111:Ellipsoid	-
geosrs:CRS	owl:equivalentClass	iso19111:CRS	-
geosrs:CompoundCRS	owl:equivalentClass	iso19111:CompoundCRS	-
geosrs:EngineeringCRS	owl:equivalentClass	iso19111:EngineeringCRS	-
geosrs:GeodeticCRS	owl:equivalentClass	iso19111:GeodeticCRS	-

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
geosrs:GeographicCRS	owl:equivalentClass	iso19111:GeographicCRS	-
geosrs:ParametricCRS	owl:equivalentClass	iso19111:ParametricCRS	-
geosrs:ProjectedCRS	owl:equivalentClass	iso19111:ProjectedCRS	-
geosrs:SingleCRS	owl:equivalentClass	iso19111:SingleCRS	-
geosrs:TemporalCRS	owl:equivalentClass	iso19111:TemporalCRS	-
geosrs:VerticalCRS	owl:equivalentClass	iso19111:VerticalCRS	-

A.3. IFC Ontology

Table A.4 – Alignment: IFC Ontology

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
geosrs:AxisDirection	owl:equivalentClass	ifc:IfcDirection	-
geosrs:CRS	owl:equivalentClass	ifc:IfcCoordinateReferenceSystem	-
geosrs:CoordinateOperation	owl:equivalentClass	ifc:IfcCoordinateOperation	-
geosrs:ProjectedCRS	owl:equivalentClass	ifc:IfcProjectedCRS	-
geosrs:axis	owl:equivalentProperty	ifc:axis_IfcAxis1Placement	-
geosrs:sourceCRS	owl:equivalentProperty	ifc:sourceCRS	-
geosrs:targetCRS	owl:equivalentProperty	ifc:targetCRS	-



ANNEX B (INFORMATIVE) SHACL SHAPES



ANNEX B (INFORMATIVE) SHACL SHAPES

Overview

Overview



ANNEX C (INFORMATIVE) REVISION HISTORY



ANNEX C (INFORMATIVE) REVISION HISTORY

DATE	RELEASE	AUTHOR	PRIMARY CLAUSES MODIFIED	DESCRIPTION
2016-04-28	0.1	G. Editor	all	initial version



BIBLIOGRAPHY





BIBLIOGRAPHY

NOTE: The TC has approved Springer LNCS as the official document citation type. Springer LNCS is widely used in technical and computer science journals and other publications. For citations in the text please use square brackets and consecutive numbers: [1], [2], [3]. Actual References: [n] Journal: Author Surname, A.: Title. Publication Title. Volume number, Issue number, Pages Used (Year Published)

- [1] ISO: ISO 19142, *Geographic information – Web Feature Service*. International Organization for Standardization, Geneva <https://www.iso.org/standard/42136.html>.
- [2] W3C: **Data Catalog Vocabulary**, W3C Recommendation 16 January 2014, <https://www.w3.org/TR/vocab-dcat/>
- [3] IANA: **Link Relation Types**, <https://www.iana.org/assignments/link-relations/link-relations.xml>
- [4] W3C/OGC: **Spatial Data on the Web Best Practices**, W3C Working Group Note 28 September 2017, <https://www.w3.org/TR/sdw-bp/>
- [5] W3C: **Data on the Web Best Practices**, W3C Recommendation 31 January 2017, <https://www.w3.org/TR/dwbp/>
- [6] Ben-Kiki, O., Evans, C., Ingy döt Net: **YAML Ain't Markup Language**, <https://yaml.org/>
- [7] OGC: **Web Feature Service 2.0**, <http://docs.opengeospatial.org/is/09-025r2/09-025r2.html>
- [8] Berners-Lee, T., Fielding, R., Masinter, L.: **IETF RFC 3986 – Uniform Resource Identifier (URI): Generic Syntax**, <http://tools.ietf.org/rfc/rfc3986.txt>