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Open  
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Consortium

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## ABSTRACT

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<Insert Abstract Text here>



## KEYWORDS

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

keyword\_1, keyword\_2, keyword\_3, etc.



## PREFACE

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**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.





## SUBMITTING ORGANIZATIONS

---

The following organizations submitted this Document to the Open Geospatial Consortium (OGC):

- Open Geospatial Consortium



## 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

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## VALIDITY OF CONTENT

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## 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)



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`.

#### REQUIREMENTS CLASS 1: 06-CORE.ADOC EXTENSION

IDENTIFIER	<code>/req/06-core.adoc</code>
TARGET TYPE	Implementation Specification
REQUIREMENT	<code>/req/Coordinate_Reference_System_Types</code>

## 6.1. Coordinate Reference System Types

#### REQUIREMENT 1: COORDINATE REFERENCE SYSTEM TYPES

IDENTIFIER	<code>/req/Coordinate_Reference_System_Types</code>
STATEMENT	Implementations shall allow the RDFS classes <code>geosrs:BoundCRS</code> , <code>geosrs:CompoundCRS</code> , <code>geosrs:EngineeringCRS</code> , <code>geosrs:GeocentricCRS</code> , <code>geosrs:GeodeticCRS</code> , <code>geosrs:GeographicCRS</code> , <code>geosrs:ParametricCRS</code> , <code>geosrs:ProjectedCRS</code> , <code>geosrs:SelenographicCRS</code> , <code>geosrs:SpatioParametricCompoundCRS</code> , <code>geosrs:SpatioParametricTemporalCompoundCRS</code> , <code>geosrs:SpatioTemporalCompoundCRS</code> , <code>geosrs:StaticCRS</code> , <code>geosrs:TemporalCRS</code> , <code>geosrs:VerticalCRS</code> to be used in SPARQL graph patterns.

### 6.1.1. Class: `geosrs:BoundCRS`

Table 1 — `geosrs:BoundCRS`

URI	<a href="https://w3id.org/geosrs/srs/BoundCRS">https://w3id.org/geosrs/srs/BoundCRS</a>
Super-classes	<a href="#">BoundCRS</a>



## 6.1.2. Class: geosrs:CompoundCRS

**Table 2** — geosrs:CompoundCRS

URI	<a href="https://w3id.org/geosrs/srs/CompoundCRS">https://w3id.org/geosrs/srs/CompoundCRS</a>
Definition	Coordinate reference system using at least two independent single coordinate reference systems. Cf. ISO 19111:2007:2007-07, parts 8.2.3.c, 8.2.4, table 6 and annex B.1.2.4.
Super-classes	<a href="#">CompoundCRS</a>

## 6.1.3. Class: geosrs:GeocentricCRS

**Table 3** — geosrs:GeocentricCRS

URI	<a href="https://w3id.org/geosrs/srs/GeocentricCRS">https://w3id.org/geosrs/srs/GeocentricCRS</a>
Definition	A cartesian coordinate reference system that represents locations in the vicinity of the Earth (including its surface, interior, atmosphere, and surrounding outer space) as X, Y, and Z measurements from its center of mass. Commonly used to track the orbits of satellites.
Super-classes	<a href="#">GeocentricCRS</a>

## 6.1.4. Class: geosrs:ParametricCRS

**Table 4** — geosrs:ParametricCRS

URI	<a href="https://w3id.org/geosrs/srs/ParametricCRS">https://w3id.org/geosrs/srs/ParametricCRS</a>
Definition	Coordinate Reference System based on a parametric datum
Super-classes	<a href="#">ParametricCRS</a>

### 6.1.5. Class: geosrs:SelenographicCRS

**Table 5** — geosrs:SelenographicCRS

URI	<a href="https://w3id.org/geosrs/srs/SelenographicCRS">https://w3id.org/geosrs/srs/SelenographicCRS</a>
Definition	Coordinate Reference System to refer locations on the surface of the Earth's Moon.
Super-classes	<a href="#">SelenographicCRS</a>

### 6.1.6. Class: geosrs:SpatioParametricCompoundCRS

**Table 6** — geosrs:SpatioParametricCompoundCRS

URI	<a href="https://w3id.org/geosrs/srs/SpatioParametricCompoundCRS">https://w3id.org/geosrs/srs/SpatioParametricCompoundCRS</a>
Definition	A spatio-parametric coordinate reference system is a compound CRS in which one component is a geographic 2D, projected 2D or engineering 2D CRS, supplemented by a parametric CRS to create a three-dimensional CRS
Super-classes	<a href="#">SpatioParametricCompoundCRS</a>

### 6.1.7. Class: geosrs:SpatioParametricTemporalCompoundCRS

**Table 7** — geosrs:SpatioParametricTemporalCompoundCRS

URI	<a href="https://w3id.org/geosrs/srs/SpatioParametricTemporalCompoundCRS">https://w3id.org/geosrs/srs/SpatioParametricTemporalCompoundCRS</a>
Definition	Coordinate reference system combining a spatio-parametric reference system with at least one temporal reference system
Super-classes	<a href="#">SpatioParametricTemporalCompoundCRS</a>

### 6.1.8. Class: geosrs:SpatioTemporalCompoundCRS

**Table 8** — geosrs:SpatioTemporalCompoundCRS

URI	<a href="https://w3id.org/geosrs/srs/SpatioTemporalCompoundCRS">https://w3id.org/geosrs/srs/SpatioTemporalCompoundCRS</a>
Definition	Coordinate reference system combining a spatial reference system with at least one temporal reference system
Super-classes	<a href="#">SpatioTemporalCompoundCRS</a>

### 6.1.9. Class: geosrs:StaticCRS

**Table 9** — geosrs:StaticCRS

URI	<a href="https://w3id.org/geosrs/srs/StaticCRS">https://w3id.org/geosrs/srs/StaticCRS</a>
Definition	Coordinate Reference System that has a static reference frame
Super-classes	<a href="#">StaticCRS</a>

### 6.1.10. Class: geosrs:TemporalCRS

**Table 10** — geosrs:TemporalCRS

URI	<a href="https://w3id.org/geosrs/srs/TemporalCRS">https://w3id.org/geosrs/srs/TemporalCRS</a>
Definition	Coordinate Reference System based on a temporal datum
Super-classes	<a href="#">TemporalCRS</a>

### 6.1.11. Class: geosrs:VerticalCRS

**Table 11** — geosrs:VerticalCRS

URI	<a href="https://w3id.org/geosrs/srs/VerticalCRS">https://w3id.org/geosrs/srs/VerticalCRS</a>
Definition	One-dimensional coordinate reference system associated with a vertical datum and used for recording heights or depths. Ellipsoidal heights are not captured in a vertical coordinate reference system but as part of a 3D coordinates tuple defined in a geodetic 3D coordinate

	reference system. Cf. ISO 19111:2007:2007-07, parts 8.2.2.b, table 14 and annex B.1.2.1.b.
Super-classes	<u>VerticalCRS</u>

7

# COORDINATE OPERATION MODULE

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# 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`.

## REQUIREMENTS CLASS 2: 07-CO\_EXTENSION.ADOC EXTENSION

IDENTIFIER	<code>/req/07-co_extension.adoc</code>
TARGET TYPE	Implementation Specification
	<code>/req/Coordinate_operation_methods</code>
REQUIREMENT	<code>/req/Coordinate_operation_parameters</code>
	<code>/req/Coordinate_operation_categories</code>

## 7.1. Coordinate operation categories

### REQUIREMENT 2: COORDINATE OPERATION CATEGORIES

IDENTIFIER	<code>/req/Coordinate_operation_categories</code>
STATEMENT	Implementations shall allow the RDFS classes <code>geosrs:GeographicObject</code> , <code>geosrs:RegisterOperations</code> , <code>geosrs:ScaleOperation</code> , <code>geosrs:RotationOperation</code> , <code>geosrs:IdentityOperation</code> , <code>geosrs:ShearOperation</code> , <code>geosrs:TranslationOperation</code> , <code>geosrs:AffineTransformationOperation</code> , <code>geosrs:CoordinateTransformationOperation</code> to be used in SPARQL graph patterns.

### 7.1.1. Class: `geosrs:GeographicObject`

Table 12 — `geosrs:GeographicObject`

URI	<a href="https://w3id.org/geosrs/co/GeographicObject">https://w3id.org/geosrs/co/GeographicObject</a>
Definition	Identifier of a geographic feature of which the coordinates are used as operation parameters.
Super-classes	<a href="#">GeographicObject</a>

### 7.1.2. Class: geosrs:RegisterOperations

**Table 13** — geosrs:RegisterOperations

URI	<a href="https://w3id.org/geosrs/co/RegisterOperations">https://w3id.org/geosrs/co/RegisterOperations</a>
Definition	Operations supported in the Coordinate Operations package.

### 7.1.3. Class: geosrs:ScaleOperation

**Table 14** — geosrs:ScaleOperation

URI	<a href="https://w3id.org/geosrs/co/ScaleOperation">https://w3id.org/geosrs/co/ScaleOperation</a>
Definition	Scale transformation operation
Super-classes	<a href="#">ScaleOperation</a>

### 7.1.4. Class: geosrs:RotationOperation

**Table 15** — geosrs:RotationOperation

URI	<a href="https://w3id.org/geosrs/co/RotationOperation">https://w3id.org/geosrs/co/RotationOperation</a>
Definition	Rotation transformation operation
Super-classes	<a href="#">RotationOperation</a>

### 7.1.5. Class: geosrs:IdentityOperation

**Table 16** — geosrs:IdentityOperation

URI	<a href="https://w3id.org/geosrs/co/IdentityOperation">https://w3id.org/geosrs/co/IdentityOperation</a>
Definition	Identity transformation operation



Super-classes	<a href="#"><u>IdentityOperation</u></a>
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### 7.1.6. Class: geosrs:ShearOperation

**Table 17** — geosrs:ShearOperation

URI	<a href="https://w3id.org/geosrs/co/ShearOperation"><u>https://w3id.org/geosrs/co/ShearOperation</u></a>
Definition	Shear transformation operation
Super-classes	<a href="#"><u>ShearOperation</u></a>

### 7.1.7. Class: geosrs:TranslationOperation

**Table 18** — geosrs:TranslationOperation

URI	<a href="https://w3id.org/geosrs/co/TranslationOperation"><u>https://w3id.org/geosrs/co/TranslationOperation</u></a>
Definition	Translation transformation operation
Super-classes	<a href="#"><u>TranslationOperation</u></a>

### 7.1.8. Class: geosrs:AffineTransformationOperation

**Table 19** — geosrs:AffineTransformationOperation

URI	<a href="https://w3id.org/geosrs/co/AffineTransformationOperation"><u>https://w3id.org/geosrs/co/AffineTransformationOperation</u></a>
Definition	Affine coordinate transformation operation
Super-classes	<a href="#"><u>CoordinateTransformationOperation</u></a> []

### 7.1.9. Class: geocrs:CoordinateTransformationOperation

**Table 20** — geocrs:CoordinateTransformationOperation

URI	geocrs:CoordinateTransformationOperation[]
Definition	Coordinate operation in which the two coordinate reference systems are based on different datums.
Super-classes	geocrs:CoordinateTransformationOperation[geocrs:CoordinateTransformationOperation]

## 7.2. Coordinate operation methods

### REQUIREMENT 3: COORDINATE OPERATION METHODS

IDENTIFIER	/req/Coordinate_operation_methods
STATEMENT	Implementations shall allow the RDFS classes geosrs:CoordinateOperation, geosrs:PassThroughOperation, geosrs:ConcatenatedOperation, geosrs:SingleOperation, geosrs:Transformation, geosrs:Conversion, geosrs:PointMotionOperation, geosrs:OperationMethod to be used in SPARQL graph patterns.

### 7.2.1. Class: geosrs:PassThroughOperation

**Table 21** — geosrs:PassThroughOperation

URI	<a href="https://w3id.org/geosrs/co/PassThroughOperation">https://w3id.org/geosrs/co/PassThroughOperation</a>
Definition	Specification of a subset of coordinate tuples that is subject to a coordinate operation
Super-classes	<a href="#">PassThroughOperation</a>

### 7.2.2. Class: geosrs:ConcatenatedOperation

**Table 22** — geosrs:ConcatenatedOperation

URI	<a href="https://w3id.org/geosrs/co/ConcatenatedOperation">https://w3id.org/geosrs/co/ConcatenatedOperation</a>
Definition	Ordered sequence of two or more single coordinate operations. Note: The sequence of coordinate operations is constrained by the requirement that the source

coordinate reference system of step (n + 1) shall be the same as the target coordinate reference system of step (n). The source coordinate reference system of the first step and the target coordinate reference system of the last step are the source and target coordinate reference system associated with the concatenated coordinate operation. For a concatenated coordinate operation sequence of n coordinate operations: source CRS (concatenated coordinate operation) .eq. source CRS (coordinate operation step 1) target CRS (coordinate operation step i) .eq. source CRS (coordinate operation step i + 1); i .eq. 1 ... (n – 1) target CRS (concatenated coordinate operation) .eq. target CRS (coordinate operation step n) Instead of a forward coordinate operation, an inverse coordinate operation may be used for one or more of the coordinate operation steps mentioned above, if the inverse coordinate operation is uniquely defined by the forward coordinate operation method.

Super-classes	<a href="#">ConcatenatedOperation</a>
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### 7.2.3. Class: geosrs:PointMotionOperation

Table 23 — geosrs:PointMotionOperation

URI	<a href="https://w3id.org/geosrs/co/PointMotionOperation">https://w3id.org/geosrs/co/PointMotionOperation</a>
Definition	Mathematical operation that describes the change of coordinate values within one coordinate reference system due to the motion of the point between one coordinate epoch and another coordinate epoch Note: In this document the motion is due to tectonic plate movement or deformation.
Super-classes	<a href="#">PointMotionOperation</a>

## 7.3. Coordinate operation parameters

## REQUIREMENT 4: COORDINATE OPERATION PARAMETERS

IDENTIFIER	/req/Coordinate_operation_parameters
STATEMENT	Implementations shall allow the RDFS classes geosrs:GeneralOperationParameter, geosrs:OperationParameterGroup, geosrs:OperationParameter, geosrs:GeneralParameterValue, geosrs:ParameterValueGroup, geosrs:OperationParameterValue to be used in SPARQL graph patterns.

### 7.3.1. Class: geosrs:OperationParameterGroup

Table 24 — geosrs:OperationParameterGroup

URI	<a href="https://w3id.org/geosrs/co/OperationParameterGroup">https://w3id.org/geosrs/co/OperationParameterGroup</a>
Definition	Definition of a group of related parameters used by a coordinate operation method.
Super-classes	<a href="#">OperationParameterGroup</a>

### 7.3.2. Class: geosrs:ParameterValueGroup

Table 25 — geosrs:ParameterValueGroup

URI	<a href="https://w3id.org/geosrs/co/ParameterValueGroup">https://w3id.org/geosrs/co/ParameterValueGroup</a>
Definition	Group of related parameter values. Note: The same group can be repeated more than once in a coordinate operation or higher level ParameterValueGroup, if those instances contain different values of one or more ParameterValues which suitably distinguish among those groups.
Super-classes	<a href="#">ParameterValueGroup</a>



8

# COORDINATE SYSTEM MODULE

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

#### REQUIREMENTS CLASS 3: 08-CS\_EXTENSION.ADOC EXTENSION

IDENTIFIER	<code>/req/08-cs_extension.adoc</code>
TARGET TYPE	Implementation Specification
	<code>/req/Coordinate_System_Types</code>
REQUIREMENT	<code>/req/Orthogonal_Coordinate_Systems</code>
	<code>/req/Celestial_Coordinate_Systems</code>

## 8.1. Celestial Coordinate Systems

#### REQUIREMENT 5: CELESTIAL COORDINATE SYSTEMS

IDENTIFIER	<code>/req/Celestial_Coordinate_Systems</code>
STATEMENT	Implementations shall allow the RDFS classes <code>geosrs:EclipticCoordinateSystem</code> , <code>geosrs:EquatorialCoordinateSystem</code> , <code>geosrs:GalacticCoordinateSystem</code> , <code>geosrs:HorizontalCoordinateSystem</code> , <code>geosrs:PerifocalCoordinateSystem</code> , <code>geosrs:SuperGalacticCS</code> to be used in SPARQL graph patterns.

### 8.1.1. Class: `geosrs:EclipticCoordinateSystem`

**Table 26** — `geosrs:EclipticCoordinateSystem`

URI	<a href="https://w3id.org/geosrs/cs/EclipticCoordinateSystem">https://w3id.org/geosrs/cs/EclipticCoordinateSystem</a>
Definition	An ecliptic coordinate system is used for representing the apparent positions and orbits of solar system objects.
Super-classes	<a href="#"><code>EclipticCoordinateSystem</code></a>

### 8.1.2. Class: geosrs:EquatorialCoordinateSystem

**Table 27** — geosrs:EquatorialCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/EquatorialCoordinateSystem">https://w3id.org/geosrs/cs/EquatorialCoordinateSystem</a>
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	<a href="#">EquatorialCoordinateSystem</a>

### 8.1.3. Class: geosrs:GalacticCoordinateSystem

**Table 28** — geosrs:GalacticCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/GalacticCoordinateSystem">https://w3id.org/geosrs/cs/GalacticCoordinateSystem</a>
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	<a href="#">CelestialCoordinateSystem</a> <a href="#">3DCoordinateSystem</a>

### 8.1.4. Class: geosrs:HorizontalCoordinateSystem

**Table 29** — geosrs:HorizontalCoordinateSystem

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

### 8.1.5. Class: geosrs:PerifocalCoordinateSystem

Table 30 — geosrs:PerifocalCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/PerifocalCoordinateSystem">https://w3id.org/geosrs/cs/PerifocalCoordinateSystem</a>
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	<a href="#">PerifocalCoordinateSystem</a>

### 8.1.6. Class: geosrs:SuperGalacticCS

Table 31 — geosrs:SuperGalacticCS

URI	<a href="https://w3id.org/geosrs/cs/SuperGalacticCS">https://w3id.org/geosrs/cs/SuperGalacticCS</a>
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	<a href="#">CelestialCoordinateSystem</a> <a href="#">3DCoordinateSystem</a>

## 8.2. Coordinate System Types

#### REQUIREMENT 6: COORDINATE SYSTEM TYPES

**IDENTIFIER**    /req/Coordinate\_System\_Types

**STATEMENT**

Implementations shall allow the RDFS classes geosrs:1DCoordinateSystem, geosrs:3DCoordinateSystem, geosrs:AffineCoordinateSystem, geosrs:BarycentricCoordinateSystem, geosrs:CartesianCoordinateSystem, geosrs:CelestialCoordinateSystem, geosrs:CurvilinearCoordinateSystem, geosrs:GeodeticCoordinateSystem, geosrs:GridCoordinateSystem, geosrs:LocalCoordinateSystem, geosrs:ObliqueCoordinateSystem, geosrs:OrdinalCoordinateSystem, geosrs:PlanarCoordinateSystem to be used in SPARQL graph patterns.



### 8.2.1. Class: geosrs:1DCoordinateSystem

**Table 32** — geosrs:1DCoordinateSystem

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

### 8.2.2. Class: geosrs:3DCoordinateSystem

**Table 33** — geosrs:3DCoordinateSystem

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

### 8.2.3. Class: geosrs:AffineCoordinateSystem

**Table 34** — geosrs:AffineCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/AffineCoordinateSystem">https://w3id.org/geosrs/cs/AffineCoordinateSystem</a>
Definition	Coordinate system in Euclidean space with straight axes that are not necessarily mutually perpendicular
Super-classes	<a href="#">AffineCoordinateSystem</a>

### 8.2.4. Class: geosrs:BarycentricCoordinateSystem

**Table 35** — geosrs:BarycentricCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/BarycentricCoordinateSystem">https://w3id.org/geosrs/cs/BarycentricCoordinateSystem</a>
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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	<a href="#"><u>BarycentricCoordinateSystem</u></a>

## 8.2.5. Class: geosrs:CelestialCoordinateSystem

**Table 36** — geosrs:CelestialCoordinateSystem

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

## 8.2.6. Class: geosrs:CurvilinearCoordinateSystem

**Table 37** — geosrs:CurvilinearCoordinateSystem

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

## 8.2.7. Class: geosrs:GeodeticCoordinateSystem

**Table 38** — geosrs:GeodeticCoordinateSystem

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

## 8.2.8. Class: geosrs:GridCoordinateSystem

**Table 39** — geosrs:GridCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/GridCoordinateSystem">https://w3id.org/geosrs/cs/GridCoordinateSystem</a>
Definition	A grid coordinate system identifies areas within a grid.
Super-classes	<a href="#">GridCoordinateSystem</a>

## 8.2.9. Class: geosrs:LocalCoordinateSystem

**Table 40** — geosrs:LocalCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/LocalCoordinateSystem">https://w3id.org/geosrs/cs/LocalCoordinateSystem</a>
Definition	Coordinate system with a point of local reference.
Super-classes	<a href="#">LocalCoordinateSystem</a>

## 8.2.10. Class: geosrs:ObliqueCoordinateSystem

**Table 41** — geosrs:ObliqueCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/ObliqueCoordinateSystem">https://w3id.org/geosrs/cs/ObliqueCoordinateSystem</a>
Definition	A plane coordinate system whose axes are not perpendicular.
Super-classes	<a href="#">ObliqueCoordinateSystem</a>

## 8.2.11. Class: geosrs:PlanarCoordinateSystem

**Table 42** — geosrs:PlanarCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/PlanarCoordinateSystem">https://w3id.org/geosrs/cs/PlanarCoordinateSystem</a>
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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	<a href="#">PlanarCoordinateSystem</a>

### 8.3. Orthogonal Coordinate Systems

REQUIREMENT 7: ORTHOGONAL COORDINATE SYSTEMS	
IDENTIFIER	/req/Orthogonal_Coordinate_Systems
STATEMENT	Implementations shall allow the RDFS classes geosrs:ConicalCoordinateSystem, geosrs:EllipsoidalCoordinateSystem to be used in SPARQL graph patterns.

#### 8.3.1. Class: geosrs:ConicalCoordinateSystem

Table 43 — geosrs:ConicalCoordinateSystem

URI	<a href="https://w3id.org/geosrs/cs/ConicalCoordinateSystem">https://w3id.org/geosrs/cs/ConicalCoordinateSystem</a>
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	<a href="#">ConicalCoordinateSystem</a>

9

# DATUM MODULE

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

#### REQUIREMENTS CLASS 4: 09-DATUM\_EXTENSION.ADOC EXTENSION

IDENTIFIER	<code>/req/09-datum_extension.adoc</code>
TARGET TYPE	Implementation Specification
REQUIREMENT	<code>/req/DatumTypes</code>

## 9.1. DatumTypes

#### REQUIREMENT 8: DATUMTYPES

IDENTIFIER	<code>/req/DatumTypes</code>
STATEMENT	Implementations shall allow the RDFS classes <code>geosrs:GeodeticDatum</code> , <code>geosrs:DynamicGeodeticReferenceFrame</code> , <code>geosrs:VerticalDatum</code> , <code>geosrs:DynamicVerticalDatum</code> , <code>geosrs:ParametricDatum</code> , <code>geosrs:EngineeringDatum</code> , <code>geosrs:TemporalDatum</code> , <code>geosrs:DatumEnsemble</code> to be used in SPARQL graph patterns.

### 9.1.1. Class: `geosrs:DynamicGeodeticReferenceFrame`

Table 44 — `geosrs:DynamicGeodeticReferenceFrame`

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

### 9.1.2. Class: geosrs:DynamicVerticalDatum

**Table 45** — geosrs:DynamicVerticalDatum

URI	<a href="https://w3id.org/geosrs/datum/DynamicVerticalDatum">https://w3id.org/geosrs/datum/DynamicVerticalDatum</a>
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	<a href="#">DynamicVerticalDatum</a>

### 9.1.3. Class: geosrs:ParametricDatum

**Table 46** — geosrs:ParametricDatum

URI	<a href="https://w3id.org/geosrs/datum/ParametricDatum">https://w3id.org/geosrs/datum/ParametricDatum</a>
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	<a href="#">ParametricDatum</a>

### 9.1.4. Class: geosrs:EngineeringDatum

**Table 47** — geosrs:EngineeringDatum

URI	<a href="https://w3id.org/geosrs/datum/EngineeringDatum">https://w3id.org/geosrs/datum/EngineeringDatum</a>
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	<a href="#">EngineeringDatum</a>
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### 9.1.5. Class: geosrs:TemporalDatum

**Table 48** — geosrs:TemporalDatum

URI	<a href="https://w3id.org/geosrs/datum/TemporalDatum">https://w3id.org/geosrs/datum/TemporalDatum</a>
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	<a href="#">TemporalDatum</a>

### 9.1.6. Class: geosrs:DatumEnsemble

**Table 49** — geosrs:DatumEnsemble

URI	<a href="https://w3id.org/geosrs/datum/DatumEnsemble">https://w3id.org/geosrs/datum/DatumEnsemble</a>
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 19111:2019 Geographic information — Referencing by coordinates.



10

# SRS APPLICATION MODULE

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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

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

## REQUIREMENTS CLASS 5: 11-PROJECTIONS\_EXTENSION.ADOC EXTENSION

IDENTIFIER	/req/11-projections_extension.adoc
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TARGET TYPE	Implementation Specification
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	/req/Lenticular_Projections
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	/req/Conformal_Projections
--	----------------------------

	/req/Minimum_Error_Projections
--	--------------------------------

	/req/Pseudo_Azimuthal_Projections
--	-----------------------------------

	/req/Equal_Area_Projections
--	-----------------------------

	/req/Pseudo_Conical_Projections
--	---------------------------------

	/req/Globular_Projections
--	---------------------------

	/req/Pseudo_Cylindrical_Projections
--	-------------------------------------

REQUIREMENT	/req/Cylindrical_Projections
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	/req/Compromise_Projections
--	-----------------------------

	/req/Polyhedral_Projections
--	-----------------------------

	/req/Equidistant_Projections
--	------------------------------

	/req/Conical_Projections
--	--------------------------

	/req/Azimuthal_Projections
--	----------------------------

	/req/Perspective_Projections
--	------------------------------

	/req/Polyconic_Projections
--	----------------------------

	/req/Stereographic_Projections
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# 11.1. Azimuthal Projections

Requirement 9: Azimuthal Projections	
IDENTIFIER	/req/Azimuthal_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:BreusingGeometricProjection, geosrs:BreusingHarmonicProjection, geosrs:GinzburgIIProjection, geosrs:GinzburgIProjection, geosrs:GnomonicProjection, geosrs:JamesAzimuthalProjection to be used in SPARQL graph patterns.

## 11.1.1. Class: geosrs:BreusingGeometricProjection

Table 50 — geosrs:BreusingGeometricProjection

URI	<a href="https://w3id.org/geosrs/projection/BreusingGeometricProjection">https://w3id.org/geosrs/projection/BreusingGeometricProjection</a>
Super-classes	<a href="#">BreusingGeometricProjection</a>

## 11.1.2. Class: geosrs:BreusingHarmonicProjection

Table 51 — geosrs:BreusingHarmonicProjection

URI	<a href="https://w3id.org/geosrs/projection/BreusingHarmonicProjection">https://w3id.org/geosrs/projection/BreusingHarmonicProjection</a>
Super-classes	<a href="#">BreusingHarmonicProjection</a>

## 11.1.3. Class: geosrs:GinzburgIIProjection

Table 52 — geosrs:GinzburgIIProjection

URI	<a href="https://w3id.org/geosrs/projection/GinzburgIIProjection">https://w3id.org/geosrs/projection/GinzburgIIProjection</a>
Super-classes	<a href="#">GinzburgIIProjection</a>

### 11.1.4. Class: geosrs:GinzburgIProjection

Table 53 — geosrs:GinzburgIProjection

URI	<a href="https://w3id.org/geosrs/projection/GinzburgIProjection">https://w3id.org/geosrs/projection/GinzburgIProjection</a>
Super-classes	<a href="#">GinzburgIProjection</a>

### 11.1.5. Class: geosrs:GnomonicProjection

Table 54 — geosrs:GnomonicProjection

URI	<a href="https://w3id.org/geosrs/projection/GnomonicProjection">https://w3id.org/geosrs/projection/GnomonicProjection</a>
Super-classes	<a href="#">GnomonicProjection</a>

### 11.1.6. Class: geosrs:JamesAzimuthalProjection

Table 55 — geosrs:JamesAzimuthalProjection

URI	<a href="https://w3id.org/geosrs/projection/JamesAzimuthalProjection">https://w3id.org/geosrs/projection/JamesAzimuthalProjection</a>
Super-classes	<a href="#">JamesAzimuthalProjection</a>

## 11.2. Compromise Projections

### REQUIREMENT 10: COMPROMISE PROJECTIONS

IDENTIFIER /req/Compromise\_Projections

STATEMENT

Implementations shall allow the RDFS classes geosrs:ArmadilloProjection, geosrs:BakerDinomic Projection, geosrs:BertinProjection, geosrs:ChamberlinTrimetricProjection, geosrs:DenoyerSemi EllipticalProjection, geosrs:FairgrieveProjection, geosrs:LarriveeProjection, geosrs:PetermannStar Projection, geosrs:SpilhausOceanicProjection, geosrs:VanDerGrintenIIIProjection, geosrs:Winkel

## REQUIREMENT 10: COMPROMISE PROJECTIONS

IIProjection, geosrs:WinkelIIProjection, geosrs:WinkelSnyderProjection to be used in SPARQL graph patterns.

### 11.2.1. Class: geosrs:ArmadilloProjection

Table 56 — geosrs:ArmadilloProjection

URI	<a href="https://w3id.org/geosrs/projection/ArmadilloProjection">https://w3id.org/geosrs/projection/ArmadilloProjection</a>
Super-classes	<a href="#">ArmadilloProjection</a>

### 11.2.2. Class: geosrs:BakerDinomicProjection

Table 57 — geosrs:BakerDinomicProjection

URI	<a href="https://w3id.org/geosrs/projection/BakerDinomicProjection">https://w3id.org/geosrs/projection/BakerDinomicProjection</a>
Super-classes	<a href="#">BakerDinomicProjection</a>

### 11.2.3. Class: geosrs:BertinProjection

Table 58 — geosrs:BertinProjection

URI	<a href="https://w3id.org/geosrs/projection/BertinProjection">https://w3id.org/geosrs/projection/BertinProjection</a>
Super-classes	<a href="#">BertinProjection</a>

### 11.2.4. Class: geosrs:ChamberlinTrimetricProjection

Table 59 — geosrs:ChamberlinTrimetricProjection

URI	<a href="https://w3id.org/geosrs/projection/ChamberlinTrimetricProjection">https://w3id.org/geosrs/projection/ChamberlinTrimetricProjection</a>
Super-classes	<a href="#">ChamberlinTrimetricProjection</a>

### 11.2.5. Class: geosrs:DenoyerSemiEllipticalProjection

Table 60 — geosrs:DenoyerSemiEllipticalProjection

URI	<a href="https://w3id.org/geosrs/projection/DenoyerSemiEllipticalProjection">https://w3id.org/geosrs/projection/DenoyerSemiEllipticalProjection</a>
Super-classes	<a href="#">DenoyerSemiEllipticalProjection</a>

### 11.2.6. Class: geosrs:FairgrieveProjection

Table 61 — geosrs:FairgrieveProjection

URI	<a href="https://w3id.org/geosrs/projection/FairgrieveProjection">https://w3id.org/geosrs/projection/FairgrieveProjection</a>
Super-classes	<a href="#">FairgrieveProjection</a>

### 11.2.7. Class: geosrs:LarriveeProjection

Table 62 — geosrs:LarriveeProjection

URI	<a href="https://w3id.org/geosrs/projection/LarriveeProjection">https://w3id.org/geosrs/projection/LarriveeProjection</a>
Super-classes	<a href="#">LarriveeProjection</a>

### 11.2.8. Class: geosrs:PetermannStarProjection

Table 63 — geosrs:PetermannStarProjection

URI	<a href="https://w3id.org/geosrs/projection/PetermannStarProjection">https://w3id.org/geosrs/projection/PetermannStarProjection</a>
Super-classes	<a href="#">PetermannStarProjection</a>

### 11.2.9. Class: geosrs:SpilhausOceanicProjection



**Table 64** — geosrs:SpilhausOceanicProjection

URI	<a href="https://w3id.org/geosrs/projection/SpilhausOceanicProjection">https://w3id.org/geosrs/projection/SpilhausOceanicProjection</a>
Super-classes	<a href="#">SpilhausOceanicProjection</a>

### 11.2.10. Class: geosrs:VanDerGrintenIIIProjection

**Table 65** — geosrs:VanDerGrintenIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/VanDerGrintenIIIProjection">https://w3id.org/geosrs/projection/VanDerGrintenIIIProjection</a>
Super-classes	<a href="#">VanDerGrintenIIIProjection</a>

### 11.2.11. Class: geosrs:WinkelIIIProjection

**Table 66** — geosrs:WinkelIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/WinkelIIIProjection">https://w3id.org/geosrs/projection/WinkelIIIProjection</a>
Super-classes	<a href="#">WinkelIIIProjection</a>

### 11.2.12. Class: geosrs:WinkelIIProjection

**Table 67** — geosrs:WinkelIIProjection

URI	<a href="https://w3id.org/geosrs/projection/WinkelIIProjection">https://w3id.org/geosrs/projection/WinkelIIProjection</a>
Super-classes	<a href="#">WinkelIIProjection</a>

### 11.2.13. Class: geosrs:WinkelSnyderProjection

**Table 68** — geosrs:WinkelSnyderProjection

URI	<a href="https://w3id.org/geosrs/projection/WinkelSnyderProjection">https://w3id.org/geosrs/projection/WinkelSnyderProjection</a>
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## 11.3. Conformal Projections

### REQUIREMENT 11: CONFORMAL PROJECTIONS

**IDENTIFIER** /req/Conformal\_Projections

**STATEMENT** Implementations shall allow the RDFS classes `geosrs:AdamsProjection`, `geosrs:AdamsWorldInASquareIIProjection`, `geosrs:AdamsWorldInASquareIProjection`, `geosrs:AugustEpicycloidalProjection`, `geosrs:CoxConformalProjection`, `geosrs:EisenlohrProjection`, `geosrs:GS50Projection`, `geosrs:PeirceQuincuncialProjection`, `geosrs:StereographicProjection` to be used in SPARQL graph patterns.

#### 11.3.1. Class: `geosrs:AdamsProjection`

**Table 69** — `geosrs:AdamsProjection`

URI	<a href="https://w3id.org/geosrs/projection/AdamsProjection">https://w3id.org/geosrs/projection/AdamsProjection</a>
Super-classes	<a href="#">AdamsProjection</a>

#### 11.3.2. Class: `geosrs:AdamsWorldInASquareIIProjection`

**Table 70** — `geosrs:AdamsWorldInASquareIIProjection`

URI	<a href="https://w3id.org/geosrs/projection/AdamsWorldInASquareIIProjection">https://w3id.org/geosrs/projection/AdamsWorldInASquareIIProjection</a>
Super-classes	<a href="#">AdamsWorldInASquareIIProjection</a>

#### 11.3.3. Class: `geosrs:AdamsWorldInASquareIProjection`

**Table 71** — geosrs:AdamsWorldInASquareProjection

URI	<a href="https://w3id.org/geosrs/projection/AdamsWorldInASquareProjection">https://w3id.org/geosrs/projection/AdamsWorldInASquareProjection</a>
Super-classes	<a href="#">AdamsWorldInASquareProjection</a>

### 11.3.4. Class: geosrs:AugustEpicycloidalProjection

**Table 72** — geosrs:AugustEpicycloidalProjection

URI	<a href="https://w3id.org/geosrs/projection/AugustEpicycloidalProjection">https://w3id.org/geosrs/projection/AugustEpicycloidalProjection</a>
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	<a href="#">AugustEpicycloidalProjection</a>

### 11.3.5. Class: geosrs:CoxConformalProjection

**Table 73** — geosrs:CoxConformalProjection

URI	<a href="https://w3id.org/geosrs/projection/CoxConformalProjection">https://w3id.org/geosrs/projection/CoxConformalProjection</a>
Super-classes	<a href="#">CoxConformalProjection</a>

### 11.3.6. Class: geosrs:EisenlohrProjection

**Table 74** — geosrs:EisenlohrProjection

URI	<a href="https://w3id.org/geosrs/projection/EisenlohrProjection">https://w3id.org/geosrs/projection/EisenlohrProjection</a>
Super-classes	<a href="#">EisenlohrProjection</a>

### 11.3.7. Class: geosrs:GS50Projection

**Table 75** — geosrs:GS50Projection

URI	<a href="https://w3id.org/geosrs/projection/GS50Projection">https://w3id.org/geosrs/projection/GS50Projection</a>
Super-classes	<a href="#">GS50Projection</a>

### 11.3.8. Class: geosrs:PeirceQuincuncialProjection

**Table 76** — geosrs:PeirceQuincuncialProjection

URI	<a href="https://w3id.org/geosrs/projection/PeirceQuincuncialProjection">https://w3id.org/geosrs/projection/PeirceQuincuncialProjection</a>
Super-classes	<a href="#">PeirceQuincuncialProjection</a>

### 11.3.9. Class: geosrs:StereographicProjection

**Table 77** — geosrs:StereographicProjection

URI	<a href="https://w3id.org/geosrs/projection/StereographicProjection">https://w3id.org/geosrs/projection/StereographicProjection</a>
Super-classes	<a href="#">StereographicProjection</a>

## 11.4. Conical Projections

REQUIREMENT 12: CONICAL PROJECTIONS	
IDENTIFIER	/req/Conical_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:BipolarObliqueConicConformalProjection, geosrs:CentralConicProjection, geosrs:HerschelConformalConicProjection, geosrs:Krovak, geosrs:LambertConformalConicProjection, geosrs:MurdochIIIProjection, geosrs:MurdochIIProjection, geosrs:MurdochIProjection, geosrs:SchjernerIProjection, geosrs:VitkovskyIProjection to be used in SPARQL graph patterns.

### 11.4.1. Class: geosrs:BipolarObliqueConicConformalProjection

**Table 78** — geosrs:BipolarObliqueConicConformalProjection

URI	<a href="https://w3id.org/geosrs/projection/BipolarObliqueConicConformalProjection">https://w3id.org/geosrs/projection/BipolarObliqueConicConformalProjection</a>
Super-classes	<a href="#">BipolarObliqueConicConformalProjection</a>

### 11.4.2. Class: geosrs:CentralConicProjection

**Table 79** — geosrs:CentralConicProjection

URI	<a href="https://w3id.org/geosrs/projection/CentralConicProjection">https://w3id.org/geosrs/projection/CentralConicProjection</a>
Super-classes	<a href="#">CentralConicProjection</a>

### 11.4.3. Class: geosrs:HerschelConformalConicProjection

**Table 80** — geosrs:HerschelConformalConicProjection

URI	<a href="https://w3id.org/geosrs/projection/HerschelConformalConicProjection">https://w3id.org/geosrs/projection/HerschelConformalConicProjection</a>
Super-classes	<a href="#">HerschelConformalConicProjection</a>

### 11.4.4. Class: geosrs:Krovak

**Table 81** — geosrs:Krovak

URI	<a href="https://w3id.org/geosrs/projection/Krovak">https://w3id.org/geosrs/projection/Krovak</a>
Super-classes	<a href="#">Krovak</a>

### 11.4.5. Class: geosrs:LambertConformalConicProjection

**Table 82** — geosrs:LambertConformalConicProjection

URI	<a href="https://w3id.org/geosrs/projection/LambertConformalConicProjection">https://w3id.org/geosrs/projection/LambertConformalConicProjection</a>
Super-classes	<a href="#">LambertConformalConicProjection</a>

#### 11.4.6. Class: geosrs:MurdochIIIProjection

**Table 83** — geosrs:MurdochIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/MurdochIIIProjection">https://w3id.org/geosrs/projection/MurdochIIIProjection</a>
Super-classes	<a href="#">MurdochIIIProjection</a>

#### 11.4.7. Class: geosrs:MurdochIIProjection

**Table 84** — geosrs:MurdochIIProjection

URI	<a href="https://w3id.org/geosrs/projection/MurdochIIProjection">https://w3id.org/geosrs/projection/MurdochIIProjection</a>
Super-classes	<a href="#">MurdochIIProjection</a>

#### 11.4.8. Class: geosrs:MurdochIProjection

**Table 85** — geosrs:MurdochIProjection

URI	<a href="https://w3id.org/geosrs/projection/MurdochIProjection">https://w3id.org/geosrs/projection/MurdochIProjection</a>
Super-classes	<a href="#">MurdochIProjection</a>

#### 11.4.9. Class: geosrs:SchjernerIProjection

**Table 86** — geosrs:SchjernerIProjection

URI	<a href="https://w3id.org/geosrs/projection/SchjernerIProjection">https://w3id.org/geosrs/projection/SchjernerIProjection</a>
Super-classes	<a href="#">SchjernerIProjection</a>

### 11.4.10. Class: geosrs:VitkovskyIProjection

Table 87 — geosrs:VitkovskyIProjection

URI	<a href="https://w3id.org/geosrs/projection/VitkovskyIProjection">https://w3id.org/geosrs/projection/VitkovskyIProjection</a>
Super-classes	<a href="#">VitkovskyIProjection</a>

## 11.5. Cylindrical Projections

### REQUIREMENT 13: CYLINDRICAL PROJECTIONS

IDENTIFIER /req/Cylindrical\_Projections

STATEMENT

Implementations shall allow the RDFS classes geosrs:ArdenCloseProjection, geosrs:BraunPerspectiveProjection, geosrs:CompactMillerProjection, geosrs:CylindricalStereographicProjection, geosrs:KarchenkoShabanovaProjection, geosrs:LabordeProjection, geosrs:MercatorProjection, geosrs:MillerProjection, geosrs:PattersonCylindricalProjection, geosrs:PavlovProjection, geosrs:ToblerCylindricalIIIProjection, geosrs:ToblerCylindricalIIProjection, geosrs:UrmayevIIIProjection, geosrs:WebMercatorProjection to be used in SPARQL graph patterns.

### 11.5.1. Class: geosrs:ArdenCloseProjection

Table 88 — geosrs:ArdenCloseProjection

URI	<a href="https://w3id.org/geosrs/projection/ArdenCloseProjection">https://w3id.org/geosrs/projection/ArdenCloseProjection</a>
Super-classes	<a href="#">ArdenCloseProjection</a>

### 11.5.2. Class: geosrs:BraunPerspectiveProjection

Table 89 — geosrs:BraunPerspectiveProjection

URI	<a href="https://w3id.org/geosrs/projection/BraunPerspectiveProjection">https://w3id.org/geosrs/projection/BraunPerspectiveProjection</a>
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Super-classes	<a href="#">BraunPerspectiveProjection</a>
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### 11.5.3. Class: geosrs:CompactMillerProjection

**Table 90** — geosrs:CompactMillerProjection

URI	<a href="https://w3id.org/geosrs/projection/CompactMillerProjection">https://w3id.org/geosrs/projection/CompactMillerProjection</a>
Super-classes	<a href="#">CompactMillerProjection</a>

### 11.5.4. Class: geosrs:CylindricalStereographicProjection

**Table 91** — geosrs:CylindricalStereographicProjection

URI	<a href="https://w3id.org/geosrs/projection/CylindricalStereographicProjection">https://w3id.org/geosrs/projection/CylindricalStereographicProjection</a>
Super-classes	<a href="#">CylindricalStereographicProjection</a>

### 11.5.5. Class: geosrs:KarchenkoShabanovaProjection

**Table 92** — geosrs:KarchenkoShabanovaProjection

URI	<a href="https://w3id.org/geosrs/projection/KarchenkoShabanovaProjection">https://w3id.org/geosrs/projection/KarchenkoShabanovaProjection</a>
Super-classes	<a href="#">KarchenkoShabanovaProjection</a>

### 11.5.6. Class: geosrs:LabordeProjection

**Table 93** — geosrs:LabordeProjection

URI	<a href="https://w3id.org/geosrs/projection/LabordeProjection">https://w3id.org/geosrs/projection/LabordeProjection</a>
Super-classes	<a href="#">LabordeProjection</a>



### 11.5.7. Class: geosrs:MercatorProjection

Table 94 — geosrs:MercatorProjection

URI	<a href="https://w3id.org/geosrs/projection/MercatorProjection">https://w3id.org/geosrs/projection/MercatorProjection</a>
Super-classes	<a href="#">MercatorProjection</a>

### 11.5.8. Class: geosrs:MillerProjection

Table 95 — geosrs:MillerProjection

URI	<a href="https://w3id.org/geosrs/projection/MillerProjection">https://w3id.org/geosrs/projection/MillerProjection</a>
Super-classes	<a href="#">MillerProjection</a>

### 11.5.9. Class: geosrs:PattersonCylindricalProjection

Table 96 — geosrs:PattersonCylindricalProjection

URI	<a href="https://w3id.org/geosrs/projection/PattersonCylindricalProjection">https://w3id.org/geosrs/projection/PattersonCylindricalProjection</a>
Super-classes	<a href="#">PattersonCylindricalProjection</a>

### 11.5.10. Class: geosrs:PavlovProjection

Table 97 — geosrs:PavlovProjection

URI	<a href="https://w3id.org/geosrs/projection/PavlovProjection">https://w3id.org/geosrs/projection/PavlovProjection</a>
Super-classes	<a href="#">PavlovProjection</a>

### 11.5.11. Class: geosrs:ToblerCylindricalIIIProjection

**Table 98** — geosrs:ToblerCylindricalIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/ToblerCylindricalIIIProjection">https://w3id.org/geosrs/projection/ToblerCylindricalIIIProjection</a>
Super-classes	<a href="#">ToblerCylindricalIIIProjection</a>

### 11.5.12. Class: geosrs:ToblerCylindricalIIIProjection

**Table 99** — geosrs:ToblerCylindricalIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/ToblerCylindricalIIIProjection">https://w3id.org/geosrs/projection/ToblerCylindricalIIIProjection</a>
Super-classes	<a href="#">ToblerCylindricalIIIProjection</a>

### 11.5.13. Class: geosrs:UrmayevIIIProjection

**Table 100** — geosrs:UrmayevIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/UrmayevIIIProjection">https://w3id.org/geosrs/projection/UrmayevIIIProjection</a>
Super-classes	<a href="#">UrmayevIIIProjection</a>

### 11.5.14. Class: geosrs:WebMercatorProjection

**Table 101** — geosrs:WebMercatorProjection

URI	<a href="https://w3id.org/geosrs/projection/WebMercatorProjection">https://w3id.org/geosrs/projection/WebMercatorProjection</a>
Super-classes	<a href="#">WebMercatorProjection</a>

## 11.6. Equal Area Projections

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## REQUIREMENT 14: EQUAL AREA PROJECTIONS

**IDENTIFIER**     /req/Equal\_Area\_Projections

**STATEMENT**

Implementations shall allow the RDFS classes `geosrs:AlbersEqualAreaProjection`, `geosrs:AzimuthalEqualAreaProjection`, `geosrs:CylindricalEqualArea`, `geosrs:GallPetersProjection`, `geosrs:HoboDyerProjection`, `geosrs:LambertAzimuthalEqualArea`, `geosrs:TrystanEdwardsProjection`, `geosrs:WiechelProjection` to be used in SPARQL graph patterns.

### 11.6.1. Class: `geosrs:AlbersEqualAreaProjection`

**Table 102** — `geosrs:AlbersEqualAreaProjection`

URI	<a href="https://w3id.org/geosrs/projection/AlbersEqualAreaProjection">https://w3id.org/geosrs/projection/AlbersEqualAreaProjection</a>
Super-classes	<a href="#">AlbersEqualAreaProjection</a>

### 11.6.2. Class: `geosrs:AzimuthalEqualAreaProjection`

**Table 103** — `geosrs:AzimuthalEqualAreaProjection`

URI	<a href="https://w3id.org/geosrs/projection/AzimuthalEqualAreaProjection">https://w3id.org/geosrs/projection/AzimuthalEqualAreaProjection</a>
Super-classes	<a href="#">AzimuthalEqualAreaProjection</a>

### 11.6.3. Class: `geosrs:CylindricalEqualArea`

**Table 104** — `geosrs:CylindricalEqualArea`

URI	<a href="https://w3id.org/geosrs/projection/CylindricalEqualArea">https://w3id.org/geosrs/projection/CylindricalEqualArea</a>
Super-classes	<a href="#">CylindricalEqualArea</a>

### 11.6.4. Class: `geosrs:GallPetersProjection`

**Table 105** — geosrs:GallPetersProjection

URI	<a href="https://w3id.org/geosrs/projection/GallPetersProjection">https://w3id.org/geosrs/projection/GallPetersProjection</a>
Super-classes	<a href="#">GallPetersProjection</a>

### 11.6.5. Class: geosrs:HoboDyerProjection

**Table 106** — geosrs:HoboDyerProjection

URI	<a href="https://w3id.org/geosrs/projection/HoboDyerProjection">https://w3id.org/geosrs/projection/HoboDyerProjection</a>
Super-classes	<a href="#">HoboDyerProjection</a>

### 11.6.6. Class: geosrs:LambertAzimuthalEqualArea

**Table 107** — geosrs:LambertAzimuthalEqualArea

URI	<a href="https://w3id.org/geosrs/projection/LambertAzimuthalEqualArea">https://w3id.org/geosrs/projection/LambertAzimuthalEqualArea</a>
Super-classes	<a href="#">LambertAzimuthalEqualArea</a>

### 11.6.7. Class: geosrs:TrystanEdwardsProjection

**Table 108** — geosrs:TrystanEdwardsProjection

URI	<a href="https://w3id.org/geosrs/projection/TrystanEdwardsProjection">https://w3id.org/geosrs/projection/TrystanEdwardsProjection</a>
Super-classes	<a href="#">TrystanEdwardsProjection</a>

### 11.6.8. Class: geosrs:WiechelProjection

**Table 109** — geosrs:WiechelProjection

URI	<a href="https://w3id.org/geosrs/projection/WichelProjection">https://w3id.org/geosrs/projection/WichelProjection</a>
Super-classes	<a href="#">WiechelProjection</a>

# 11.7. Equidistant Projections

## REQUIREMENT 15: EQUIDISTANT PROJECTIONS

**IDENTIFIER**     /req/Equidistant\_Projections

**STATEMENT**     Implementations shall allow the RDFS classes geosrs:AzimuthalEquidistantProjection, geosrs:BerghausStarProjection, geosrs:CassiniProjection, geosrs:EquidistantConicProjection, geosrs:EquidistantCylindricalProjection, geosrs:EquirectangularProjection, geosrs:ObliquePlateCarreeProjection, geosrs:PlateCarreeProjection, geosrs:TwoPointEquidistantProjection to be used in SPARQL graph patterns.

### 11.7.1. Class: geosrs:AzimuthalEquidistantProjection

Table 110 — geosrs:AzimuthalEquidistantProjection

URI	<a href="https://w3id.org/geosrs/projection/AzimuthalEquidistantProjection">https://w3id.org/geosrs/projection/AzimuthalEquidistantProjection</a>
Super-classes	<a href="#">AzimuthalEquidistantProjection</a>

### 11.7.2. Class: geosrs:BerghausStarProjection

Table 111 — geosrs:BerghausStarProjection

URI	<a href="https://w3id.org/geosrs/projection/BerghausStarProjection">https://w3id.org/geosrs/projection/BerghausStarProjection</a>
Super-classes	<a href="#">BerghausStarProjection</a>

### 11.7.3. Class: geosrs:CassiniProjection

Table 112 — geosrs:CassiniProjection

URI	<a href="https://w3id.org/geosrs/projection/CassiniProjection">https://w3id.org/geosrs/projection/CassiniProjection</a>
Definition	A map projection first described in an approximate form by César-François Cassini de Thury in 1745

Super-classes	<a href="#">CassiniProjection</a>
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#### 11.7.4. Class: geosrs:EquidistantConicProjection

**Table 113** — geosrs:EquidistantConicProjection

URI	<a href="https://w3id.org/geosrs/projection/EquidistantConicProjection">https://w3id.org/geosrs/projection/EquidistantConicProjection</a>
Super-classes	<a href="#">EquidistantConicProjection</a>

#### 11.7.5. Class: geosrs:EquidistantCylindricalProjection

**Table 114** — geosrs:EquidistantCylindricalProjection

URI	<a href="https://w3id.org/geosrs/projection/EquidistantCylindricalProjection">https://w3id.org/geosrs/projection/EquidistantCylindricalProjection</a>
Super-classes	<a href="#">EquidistantCylindricalProjection</a>

#### 11.7.6. Class: geosrs:EquirectangularProjection

**Table 115** — geosrs:EquirectangularProjection

URI	<a href="https://w3id.org/geosrs/projection/EquirectangularProjection">https://w3id.org/geosrs/projection/EquirectangularProjection</a>
Super-classes	<a href="#">EquirectangularProjection</a>

#### 11.7.7. Class: geosrs:ObliquePlateCarreeProjection

**Table 116** — geosrs:ObliquePlateCarreeProjection

URI	<a href="https://w3id.org/geosrs/projection/ObliquePlateCarreeProjection">https://w3id.org/geosrs/projection/ObliquePlateCarreeProjection</a>
Super-classes	<a href="#">ObliquePlateCarreeProjection</a>

### 11.7.8. Class: geosrs:PlateCarreeProjection

Table 117 — geosrs:PlateCarreeProjection

URI	<a href="https://w3id.org/geosrs/projection/PlateCarreeProjection">https://w3id.org/geosrs/projection/PlateCarreeProjection</a>
Super-classes	<a href="#">PlateCarreeProjection</a>

### 11.7.9. Class: geosrs:TwoPointEquidistantProjection

Table 118 — geosrs:TwoPointEquidistantProjection

URI	<a href="https://w3id.org/geosrs/projection/TwoPointEquidistantProjection">https://w3id.org/geosrs/projection/TwoPointEquidistantProjection</a>
Super-classes	<a href="#">TwoPointEquidistantProjection</a>

## 11.8. Globular Projections

### REQUIREMENT 16: GLOBULAR PROJECTIONS

IDENTIFIER	/req/Globular_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:ApianGlobularIProjection, geosrs:BaconGlobularProjection, geosrs:FournierGlobularIProjection to be used in SPARQL graph patterns.

### 11.8.1. Class: geosrs:ApianGlobularIProjection

Table 119 — geosrs:ApianGlobularIProjection

URI	<a href="https://w3id.org/geosrs/projection/ApianGlobularIProjection">https://w3id.org/geosrs/projection/ApianGlobularIProjection</a>
Super-classes	<a href="#">ApianGlobularIProjection</a>

### 11.8.2. Class: geosrs:BaconGlobularProjection

Table 120 — geosrs:BaconGlobularProjection

URI	<a href="https://w3id.org/geosrs/projection/BaconGlobularProjection">https://w3id.org/geosrs/projection/BaconGlobularProjection</a>
Super-classes	<a href="#">BaconGlobularProjection</a>

### 11.8.3. Class: geosrs:FournierGlobularIProjection

Table 121 — geosrs:FournierGlobularIProjection

URI	<a href="https://w3id.org/geosrs/projection/FournierGlobularIProjection">https://w3id.org/geosrs/projection/FournierGlobularIProjection</a>
Super-classes	<a href="#">FournierGlobularIProjection</a>

## 11.9. Lenticular Projections

### REQUIREMENT 17: LENTICULAR PROJECTIONS

IDENTIFIER	/req/Lenticular_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:A4Projection, geosrs:BriesemeisterProjection, geosrs:CiricIProjection, geosrs:CupolaProjection, geosrs:DedistortProjection, geosrs:DietrichKitadaProjection, geosrs:FranculaIIIProjection, geosrs:FranculaIVProjection, geosrs:FranculaIXProjection, geosrs:FranculaVIIIProjection, geosrs:FranculaVProjection, geosrs:FranculaXIIIProjection, geosrs:FranculaXIIProjection, geosrs:FranculaXIVProjection, geosrs:HamusoidalProjection, geosrs:KissProjection to be used in SPARQL graph patterns.

### 11.9.1. Class: geosrs:A4Projection

Table 122 — geosrs:A4Projection

URI	<a href="https://w3id.org/geosrs/projection/A4Projection">https://w3id.org/geosrs/projection/A4Projection</a>
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Super-classes	<a href="#">A4Projection</a>
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### 11.9.2. Class: geosrs:BriesemeisterProjection

**Table 123** — geosrs:BriesemeisterProjection

URI	<a href="https://w3id.org/geosrs/projection/BriesemeisterProjection">https://w3id.org/geosrs/projection/BriesemeisterProjection</a>
Super-classes	<a href="#">BriesemeisterProjection</a>

### 11.9.3. Class: geosrs:CiricIProjection

**Table 124** — geosrs:CiricIProjection

URI	<a href="https://w3id.org/geosrs/projection/CiricIProjection">https://w3id.org/geosrs/projection/CiricIProjection</a>
Super-classes	<a href="#">CiricIProjection</a>

### 11.9.4. Class: geosrs:CupolaProjection

**Table 125** — geosrs:CupolaProjection

URI	<a href="https://w3id.org/geosrs/projection/CupolaProjection">https://w3id.org/geosrs/projection/CupolaProjection</a>
Super-classes	<a href="#">CupolaProjection</a>

### 11.9.5. Class: geosrs:DedistortProjection

**Table 126** — geosrs:DedistortProjection

URI	<a href="https://w3id.org/geosrs/projection/DedistortProjection">https://w3id.org/geosrs/projection/DedistortProjection</a>
Super-classes	<a href="#">DedistortProjection</a>

### 11.9.6. Class: geosrs:DietrichKitadaProjection

Table 127 — geosrs:DietrichKitadaProjection

URI	<a href="https://w3id.org/geosrs/projection/DietrichKitadaProjection">https://w3id.org/geosrs/projection/DietrichKitadaProjection</a>
Super-classes	<a href="#">DietrichKitadaProjection</a>

### 11.9.7. Class: geosrs:FranculaIIIProjection

Table 128 — geosrs:FranculaIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/FranculaIIIProjection">https://w3id.org/geosrs/projection/FranculaIIIProjection</a>
Super-classes	<a href="#">FranculaIIIProjection</a>

### 11.9.8. Class: geosrs:FranculaIVProjection

Table 129 — geosrs:FranculaIVProjection

URI	<a href="https://w3id.org/geosrs/projection/FranculaIVProjection">https://w3id.org/geosrs/projection/FranculaIVProjection</a>
Super-classes	<a href="#">FranculaIVProjection</a>

### 11.9.9. Class: geosrs:FranculaIXProjection

Table 130 — geosrs:FranculaIXProjection

URI	<a href="https://w3id.org/geosrs/projection/FranculaIXProjection">https://w3id.org/geosrs/projection/FranculaIXProjection</a>
Super-classes	<a href="#">FranculaIXProjection</a>

### 11.9.10. Class: geosrs:FranculaVIIIProjection

**Table 131** — geosrs:FraculaVIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/FraculaVIIIProjection">https://w3id.org/geosrs/projection/FraculaVIIIProjection</a>
Super-classes	<a href="#">FraculaVIIIProjection</a>

### 11.9.11. Class: geosrs:FraculaVProjection

**Table 132** — geosrs:FraculaVProjection

URI	<a href="https://w3id.org/geosrs/projection/FraculaVProjection">https://w3id.org/geosrs/projection/FraculaVProjection</a>
Super-classes	<a href="#">FraculaVProjection</a>

### 11.9.12. Class: geosrs:FraculaXIIIProjection

**Table 133** — geosrs:FraculaXIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/FraculaXIIIProjection">https://w3id.org/geosrs/projection/FraculaXIIIProjection</a>
Super-classes	<a href="#">FraculaXIIIProjection</a>

### 11.9.13. Class: geosrs:FraculaXIIProjection

**Table 134** — geosrs:FraculaXIIProjection

URI	<a href="https://w3id.org/geosrs/projection/FraculaXIIProjection">https://w3id.org/geosrs/projection/FraculaXIIProjection</a>
Super-classes	<a href="#">FraculaXIIProjection</a>

### 11.9.14. Class: geosrs:FraculaXIVProjection

**Table 135** — geosrs:FraculaXIVProjection

URI	<a href="https://w3id.org/geosrs/projection/FraculaXIVProjection">https://w3id.org/geosrs/projection/FraculaXIVProjection</a>
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Super-classes

[FranculaXIVProjection](#)

### 11.9.15. Class: geosrs:HamusoidalProjection

Table 136 — geosrs:HamusoidalProjection

URI	<a href="https://w3id.org/geosrs/projection/HamusoidalProjection">https://w3id.org/geosrs/projection/HamusoidalProjection</a>
Super-classes	<a href="#">HamusoidalProjection</a>

### 11.9.16. Class: geosrs:KissProjection

Table 137 — geosrs:KissProjection

URI	<a href="https://w3id.org/geosrs/projection/KissProjection">https://w3id.org/geosrs/projection/KissProjection</a>
Super-classes	<a href="#">KissProjection</a>

## 11.10. Minimum Error Projections

### REQUIREMENT 18: MINIMUM ERROR PROJECTIONS

IDENTIFIER /req/Minimum\_Error\_Projections

STATEMENT

Implementations shall allow the RDFS classes geosrs:AiryProjection to be used in SPARQL graph patterns.

#### 11.10.1. Class: geosrs:AiryProjection

Table 138 — geosrs:AiryProjection

URI	<a href="https://w3id.org/geosrs/projection/AiryProjection">https://w3id.org/geosrs/projection/AiryProjection</a>
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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	<a href="#">AiryProjection</a>

# 11.11. Perspective Projections

Requirement 19: Perspective Projections	
IDENTIFIER	/req/Perspective_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:CentralCylindricalProjection, geosrs:GeneralVerticalPerspectiveProjection, geosrs:GilbertTwoWorldPerspectiveProjection, geosrs:LaHireProjection, geosrs:LorgnaProjection, geosrs:LowryProjection, geosrs:OrthographicProjection, geosrs:PerspectiveConicProjection, geosrs:TiltedPerspectiveProjection, geosrs:VerticalPerspectiveProjection to be used in SPARQL graph patterns.

## 11.11.1. Class: geosrs:CentralCylindricalProjection

Table 139 — geosrs:CentralCylindricalProjection

URI	<a href="https://w3id.org/geosrs/projection/CentralCylindricalProjection">https://w3id.org/geosrs/projection/CentralCylindricalProjection</a>
Super-classes	<a href="#">CentralCylindricalProjection</a>

## 11.11.2. Class: geosrs:GeneralVerticalPerspectiveProjection

Table 140 — geosrs:GeneralVerticalPerspectiveProjection

URI	<a href="https://w3id.org/geosrs/projection/GeneralVerticalPerspectiveProjection">https://w3id.org/geosrs/projection/GeneralVerticalPerspectiveProjection</a>
Super-classes	<a href="#">GeneralVerticalPerspectiveProjection</a>

### 11.11.3. Class: geosrs:GilbertTwoWorldPerspectiveProjection

Table 141 — geosrs:GilbertTwoWorldPerspectiveProjection

URI	<a href="https://w3id.org/geosrs/projection/GilbertTwoWorldPerspectiveProjection">https://w3id.org/geosrs/projection/GilbertTwoWorldPerspectiveProjection</a>
Super-classes	<a href="#">GilbertTwoWorldPerspectiveProjection</a>

### 11.11.4. Class: geosrs:LaHireProjection

Table 142 — geosrs:LaHireProjection

URI	<a href="https://w3id.org/geosrs/projection/LaHireProjection">https://w3id.org/geosrs/projection/LaHireProjection</a>
Super-classes	<a href="#">LaHireProjection</a>

### 11.11.5. Class: geosrs:LorgnaProjection

Table 143 — geosrs:LorgnaProjection

URI	<a href="https://w3id.org/geosrs/projection/LorgnaProjection">https://w3id.org/geosrs/projection/LorgnaProjection</a>
Super-classes	<a href="#">LorgnaProjection</a>

### 11.11.6. Class: geosrs:LowryProjection

Table 144 — geosrs:LowryProjection

URI	<a href="https://w3id.org/geosrs/projection/LowryProjection">https://w3id.org/geosrs/projection/LowryProjection</a>
Super-classes	<a href="#">LowryProjection</a>

### 11.11.7. Class: geosrs:OrthographicProjection

**Table 145** — geosrs:OrthographicProjection

URI	<a href="https://w3id.org/geosrs/projection/OrthographicProjection">https://w3id.org/geosrs/projection/OrthographicProjection</a>
Super-classes	<a href="#">OrthographicProjection</a>

### 11.11.8. Class: geosrs:PerspectiveConicProjection

**Table 146** — geosrs:PerspectiveConicProjection

URI	<a href="https://w3id.org/geosrs/projection/PerspectiveConicProjection">https://w3id.org/geosrs/projection/PerspectiveConicProjection</a>
Super-classes	<a href="#">PerspectiveConicProjection</a>

### 11.11.9. Class: geosrs:TiltedPerspectiveProjection

**Table 147** — geosrs:TiltedPerspectiveProjection

URI	<a href="https://w3id.org/geosrs/projection/TiltedPerspectiveProjection">https://w3id.org/geosrs/projection/TiltedPerspectiveProjection</a>
Super-classes	<a href="#">TiltedPerspectiveProjection</a>

### 11.11.10. Class: geosrs:VerticalPerspectiveProjection

**Table 148** — geosrs:VerticalPerspectiveProjection

URI	<a href="https://w3id.org/geosrs/projection/VerticalPerspectiveProjection">https://w3id.org/geosrs/projection/VerticalPerspectiveProjection</a>
Super-classes	<a href="#">VerticalPerspectiveProjection</a>

## 11.12. Polyconic Projections

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## REQUIREMENT 20: POLYCONIC PROJECTIONS

**IDENTIFIER** /req/Polyconic\_Projections

**STATEMENT** Implementations shall allow the RDFS classes geosrs:GinzburgIVProjection, geosrs:GinzburgIXProjection, geosrs:GinzburgVIPProjection, geosrs:GinzburgVProjection, geosrs:GottWagnerProjection, geosrs:HillEucyclicProjection, geosrs:LagrangeProjection, geosrs:LaskowskiProjection, geosrs:RectangularPolyconicProjection, geosrs:StabiusWernerIIIProjection, geosrs:StabiusWernerIProjection, geosrs:VanDerGrintenIIProjection, geosrs:VanDerGrintenIProjection, geosrs:VanDerGrintenIVProjection, geosrs:WagnerIXProjection, geosrs:WagnerVIIIProjection, geosrs:WagnerVIIProjection to be used in SPARQL graph patterns.

### 11.12.1. Class: geosrs:GinzburgIVProjection

**Table 149** — geosrs:GinzburgIVProjection

URI	<a href="https://w3id.org/geosrs/projection/GinzburgIVProjection">https://w3id.org/geosrs/projection/GinzburgIVProjection</a>
Super-classes	<a href="#">GinzburgIVProjection</a>

### 11.12.2. Class: geosrs:GinzburgIXProjection

**Table 150** — geosrs:GinzburgIXProjection

URI	<a href="https://w3id.org/geosrs/projection/GinzburgIXProjection">https://w3id.org/geosrs/projection/GinzburgIXProjection</a>
Super-classes	<a href="#">GinzburgIXProjection</a>

### 11.12.3. Class: geosrs:GinzburgVIPProjection

**Table 151** — geosrs:GinzburgVIPProjection

URI	<a href="https://w3id.org/geosrs/projection/GinzburgVIPProjection">https://w3id.org/geosrs/projection/GinzburgVIPProjection</a>
Super-classes	<a href="#">GinzburgVIPProjection</a>

### 11.12.4. Class: geosrs:GinzburgVProjection



**Table 152** — geosrs:GinzburgVProjection

URI	<a href="https://w3id.org/geosrs/projection/GinzburgVProjection">https://w3id.org/geosrs/projection/GinzburgVProjection</a>
Super-classes	<a href="#">GinzburgVProjection</a>

### 11.12.5. Class: geosrs:GottWagnerProjection

**Table 153** — geosrs:GottWagnerProjection

URI	<a href="https://w3id.org/geosrs/projection/GottWagnerProjection">https://w3id.org/geosrs/projection/GottWagnerProjection</a>
Super-classes	<a href="#">GottWagnerProjection</a>

### 11.12.6. Class: geosrs:HillEucyclicProjection

**Table 154** — geosrs:HillEucyclicProjection

URI	<a href="https://w3id.org/geosrs/projection/HillEucyclicProjection">https://w3id.org/geosrs/projection/HillEucyclicProjection</a>
Super-classes	<a href="#">HillEucyclicProjection</a>

### 11.12.7. Class: geosrs:LagrangeProjection

**Table 155** — geosrs:LagrangeProjection

URI	<a href="https://w3id.org/geosrs/projection/LagrangeProjection">https://w3id.org/geosrs/projection/LagrangeProjection</a>
Super-classes	<a href="#">LagrangeProjection</a>

### 11.12.8. Class: geosrs:LaskowskiProjection

**Table 156** — geosrs:LaskowskiProjection

URI	<a href="https://w3id.org/geosrs/projection/LaskowskiProjection">https://w3id.org/geosrs/projection/LaskowskiProjection</a>
Super-classes	<a href="#">LaskowskiProjection</a>

### 11.12.9. Class: geosrs:RectangularPolyconicProjection

Table 157 — geosrs:RectangularPolyconicProjection

URI	<a href="https://w3id.org/geosrs/projection/RectangularPolyconicProjection">https://w3id.org/geosrs/projection/RectangularPolyconicProjection</a>
Super-classes	<a href="#">RectangularPolyconicProjection</a>

### 11.12.10. Class: geosrs:StabiusWernerIIIProjection

Table 158 — geosrs:StabiusWernerIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/StabiusWernerIIIProjection">https://w3id.org/geosrs/projection/StabiusWernerIIIProjection</a>
Super-classes	<a href="#">StabiusWernerIIIProjection</a>

### 11.12.11. Class: geosrs:StabiusWernerIProjection

Table 159 — geosrs:StabiusWernerIProjection

URI	<a href="https://w3id.org/geosrs/projection/StabiusWernerIProjection">https://w3id.org/geosrs/projection/StabiusWernerIProjection</a>
Super-classes	<a href="#">StabiusWernerIProjection</a>

### 11.12.12. Class: geosrs:VanDerGrintenIIProjection

Table 160 — geosrs:VanDerGrintenIIProjection

URI	<a href="https://w3id.org/geosrs/projection/VanDerGrintenIIProjection">https://w3id.org/geosrs/projection/VanDerGrintenIIProjection</a>
Super-classes	<a href="#">VanDerGrintenIIProjection</a>

### 11.12.13. Class: geosrs:VanDerGrintenIProjection

**Table 161** — geosrs:VanDerGrintenIProjection

URI	<a href="https://w3id.org/geosrs/projection/VanDerGrintenIProjection">https://w3id.org/geosrs/projection/VanDerGrintenIProjection</a>
Super-classes	<a href="#">VanDerGrintenIProjection</a>

#### 11.12.14. Class: geosrs:VanDerGrintenIVProjection

**Table 162** — geosrs:VanDerGrintenIVProjection

URI	<a href="https://w3id.org/geosrs/projection/VanDerGrintenIVProjection">https://w3id.org/geosrs/projection/VanDerGrintenIVProjection</a>
Super-classes	<a href="#">VanDerGrintenIVProjection</a>

#### 11.12.15. Class: geosrs:WagnerIXProjection

**Table 163** — geosrs:WagnerIXProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerIXProjection">https://w3id.org/geosrs/projection/WagnerIXProjection</a>
Super-classes	<a href="#">WagnerIXProjection</a>

#### 11.12.16. Class: geosrs:WagnerVIIIProjection

**Table 164** — geosrs:WagnerVIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerVIIIProjection">https://w3id.org/geosrs/projection/WagnerVIIIProjection</a>
Super-classes	<a href="#">WagnerVIIIProjection</a>

#### 11.12.17. Class: geosrs:WagnerVIIProjection

**Table 165** — geosrs:WagnerVIIProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerVIIProjection">https://w3id.org/geosrs/projection/WagnerVIIProjection</a>
Super-classes	<a href="#">WagnerVIIProjection</a>

# 11.13. Polyhedral Projections

Requirement 21: Polyhedral Projections	
IDENTIFIER	/req/Polyhedral_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:AuthaGraphProjection, geosrs:CahillKeyesProjection, geosrs:CollignonButterflyProjection, geosrs:DodecahedralProjection, geosrs:DymaxionProjection, geosrs:GnomonicButterflyProjection, geosrs:GnomonicCubedSphereProjection, geosrs:GnomonicIcosahedronProjection, geosrs:GuyouProjection, geosrs:IcosahedralProjection, geosrs:LeeProjection, geosrs:MyrahedalProjection, geosrs:OctantProjection, geosrs:QuadrilateralizedSphericalCubeProjection, geosrs:WatermanButterflyProjection to be used in SPARQL graph patterns.

## 11.13.1. Class: geosrs:AuthaGraphProjection

Table 166 — geosrs:AuthaGraphProjection

URI	<a href="https://w3id.org/geosrs/projection/AuthaGraphProjection">https://w3id.org/geosrs/projection/AuthaGraphProjection</a>
Super-classes	<a href="#">AuthaGraphProjection</a>

## 11.13.2. Class: geosrs:CahillKeyesProjection

Table 167 — geosrs:CahillKeyesProjection

URI	<a href="https://w3id.org/geosrs/projection/CahillKeyesProjection">https://w3id.org/geosrs/projection/CahillKeyesProjection</a>
Super-classes	<a href="#">CahillKeyesProjection</a>

## 11.13.3. Class: geosrs:CollignonButterflyProjection

Table 168 — geosrs:CollignonButterflyProjection

URI	<a href="https://w3id.org/geosrs/projection/CollignonButterflyProjection">https://w3id.org/geosrs/projection/CollignonButterflyProjection</a>
Super-classes	<a href="#">CollignonButterflyProjection</a>

#### 11.13.4. Class: geosrs:DodecahedralProjection

Table 169 — geosrs:DodecahedralProjection

URI	<a href="https://w3id.org/geosrs/projection/DodecahedralProjection">https://w3id.org/geosrs/projection/DodecahedralProjection</a>
Super-classes	<a href="#">DodecahedralProjection</a>

#### 11.13.5. Class: geosrs:DymaxionProjection

Table 170 — geosrs:DymaxionProjection

URI	<a href="https://w3id.org/geosrs/projection/DymaxionProjection">https://w3id.org/geosrs/projection/DymaxionProjection</a>
Super-classes	<a href="#">DymaxionProjection</a>

#### 11.13.6. Class: geosrs:GnomonicButterflyProjection

Table 171 — geosrs:GnomonicButterflyProjection

URI	<a href="https://w3id.org/geosrs/projection/GnomonicButterflyProjection">https://w3id.org/geosrs/projection/GnomonicButterflyProjection</a>
Super-classes	<a href="#">GnomonicButterflyProjection</a>

#### 11.13.7. Class: geosrs:GnomonicCubedSphereProjection

Table 172 — geosrs:GnomonicCubedSphereProjection

URI	<a href="https://w3id.org/geosrs/projection/GnomonicCubedSphereProjection">https://w3id.org/geosrs/projection/GnomonicCubedSphereProjection</a>
Super-classes	<a href="#">GnomonicCubedSphereProjection</a>

#### 11.13.8. Class: geosrs:GnomonicIcosahedronProjection

**Table 173** — geosrs:GnomonicCosahedronProjection

URI	<a href="https://w3id.org/geosrs/projection/GnomonicCosahedronProjection">https://w3id.org/geosrs/projection/GnomonicCosahedronProjection</a>
Super-classes	<a href="#">GnomonicCosahedronProjection</a>

### 11.13.9. Class: geosrs:GuyouProjection

**Table 174** — geosrs:GuyouProjection

URI	<a href="https://w3id.org/geosrs/projection/GuyouProjection">https://w3id.org/geosrs/projection/GuyouProjection</a>
Super-classes	<a href="#">GuyouProjection</a>

### 11.13.10. Class: geosrs:IcosahedralProjection

**Table 175** — geosrs:IcosahedralProjection

URI	<a href="https://w3id.org/geosrs/projection/IcosahedralProjection">https://w3id.org/geosrs/projection/IcosahedralProjection</a>
Super-classes	<a href="#">IcosahedralProjection</a>

### 11.13.11. Class: geosrs:LeeProjection

**Table 176** — geosrs:LeeProjection

URI	<a href="https://w3id.org/geosrs/projection/LeeProjection">https://w3id.org/geosrs/projection/LeeProjection</a>
Super-classes	<a href="#">LeeProjection</a>

### 11.13.12. Class: geosrs:MyrahedralProjection

**Table 177** — geosrs:MyrahedralProjection

URI	<a href="https://w3id.org/geosrs/projection/MyrahedralProjection">https://w3id.org/geosrs/projection/MyrahedralProjection</a>
Super-classes	<a href="#">MyrahedralProjection</a>

### 11.13.13. Class: geosrs:OctantProjection

Table 178 — geosrs:OctantProjection

URI	<a href="https://w3id.org/geosrs/projection/OctantProjection">https://w3id.org/geosrs/projection/OctantProjection</a>
Super-classes	<a href="#">OctantProjection</a>

### 11.13.14. Class: geosrs:QuadrilateralizedSphericalCubeProjection

Table 179 — geosrs:QuadrilateralizedSphericalCubeProjection

URI	<a href="https://w3id.org/geosrs/projection/QuadrilateralizedSphericalCubeProjection">https://w3id.org/geosrs/projection/QuadrilateralizedSphericalCubeProjection</a>
Super-classes	<a href="#">QuadrilateralizedSphericalCubeProjection</a>

### 11.13.15. Class: geosrs:WatermanButterflyProjection

Table 180 — geosrs:WatermanButterflyProjection

URI	<a href="https://w3id.org/geosrs/projection/WatermanButterflyProjection">https://w3id.org/geosrs/projection/WatermanButterflyProjection</a>
Super-classes	<a href="#">WatermanButterflyProjection</a>

## 11.14. Pseudo Azimuthal Projections

#### REQUIREMENT 22: PSEUDO AZIMUTHAL PROJECTIONS

IDENTIFIER	/req/Pseudo_Azimuthal_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:AitoffObliqueProjection, geosrs:Aitoff Projection, geosrs:HammerProjection, geosrs:Strebe1995Projection, geosrs:WinkelTripel Projection to be used in SPARQL graph patterns.

### 11.14.1. Class: geosrs:AitoffObliqueProjection

**Table 181** — geosrs:AitoffObliqueProjection

URI	<a href="https://w3id.org/geosrs/projection/AitoffObliqueProjection">https://w3id.org/geosrs/projection/AitoffObliqueProjection</a>
Super-classes	<a href="#">AitoffObliqueProjection</a>

### 11.14.2. Class: geosrs:AitoffProjection

**Table 182** — geosrs:AitoffProjection

URI	<a href="https://w3id.org/geosrs/projection/AitoffProjection">https://w3id.org/geosrs/projection/AitoffProjection</a>
Definition	A modified azimuthal projection whose graticule takes the form of an ellipse
Super-classes	<a href="#">AitoffProjection</a>

### 11.14.3. Class: geosrs:HammerProjection

**Table 183** — geosrs:HammerProjection

URI	<a href="https://w3id.org/geosrs/projection/HammerProjection">https://w3id.org/geosrs/projection/HammerProjection</a>
Super-classes	<a href="#">HammerProjection</a>

### 11.14.4. Class: geosrs:Strebe1995Projection

**Table 184** — geosrs:Strebe1995Projection

URI	<a href="https://w3id.org/geosrs/projection/Strebe1995Projection">https://w3id.org/geosrs/projection/Strebe1995Projection</a>
Super-classes	<a href="#">Strebe1995Projection</a>



### 11.14.5. Class: geosrs:WinkelTripelProjection

Table 185 — geosrs:WinkelTripelProjection

URI	<a href="https://w3id.org/geosrs/projection/WinkelTripelProjection">https://w3id.org/geosrs/projection/WinkelTripelProjection</a>
Super-classes	<a href="#">WinkelTripelProjection</a>

## 11.15. Pseudo Conical Projections

### REQUIREMENT 23: PSEUDO CONICAL PROJECTIONS

IDENTIFIER	/req/Pseudo_Conical_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:AmericanPolyconicProjection, geosrs:BonneProjection, geosrs:BottomleyProjection, geosrs:NicolosiGlobularProjection, geosrs:PtolemyIIProjection, geosrs:WernerProjection to be used in SPARQL graph patterns.

### 11.15.1. Class: geosrs:AmericanPolyconicProjection

Table 186 — geosrs:AmericanPolyconicProjection

URI	<a href="https://w3id.org/geosrs/projection/AmericanPolyconicProjection">https://w3id.org/geosrs/projection/AmericanPolyconicProjection</a>
Super-classes	<a href="#">AmericanPolyconicProjection</a>

### 11.15.2. Class: geosrs:BonneProjection

Table 187 — geosrs:BonneProjection

URI	<a href="https://w3id.org/geosrs/projection/BonneProjection">https://w3id.org/geosrs/projection/BonneProjection</a>
Super-classes	<a href="#">BonneProjection</a>

### 11.15.3. Class: geosrs:BottomleyProjection

**Table 188** — geosrs:BottomleyProjection

URI	<a href="https://w3id.org/geosrs/projection/BottomleyProjection">https://w3id.org/geosrs/projection/BottomleyProjection</a>
Super-classes	<a href="#">BottomleyProjection</a>

### 11.15.4. Class: geosrs:NicolosiGlobularProjection

**Table 189** — geosrs:NicolosiGlobularProjection

URI	<a href="https://w3id.org/geosrs/projection/NicolosiGlobularProjection">https://w3id.org/geosrs/projection/NicolosiGlobularProjection</a>
Super-classes	<a href="#">NicolosiGlobularProjection</a>

### 11.15.5. Class: geosrs:PtolemyIIProjection

**Table 190** — geosrs:PtolemyIIProjection

URI	<a href="https://w3id.org/geosrs/projection/PtolemyIIProjection">https://w3id.org/geosrs/projection/PtolemyIIProjection</a>
Super-classes	<a href="#">PtolemyIIProjection</a>

### 11.15.6. Class: geosrs:WernerProjection

**Table 191** — geosrs:WernerProjection

URI	<a href="https://w3id.org/geosrs/projection/WernerProjection">https://w3id.org/geosrs/projection/WernerProjection</a>
Super-classes	<a href="#">WernerProjection</a>

# 11.16. Pseudo Cylindrical Projections

## REQUIREMENT 24: PSEUDO CYLINDRICAL PROJECTIONS

IDENTIFIER	/req/Pseudo_Cylindrical_Projections
STATEMENT	Implementations shall allow the RDFS classes geosrs:ApianIIProjection, geosrs:AtlantisProjection, geosrs:BaranyIIIIProjection, geosrs:BaranyIIProjection, geosrs:BaranyIProjection, geosrs:BaranyiIVProjection, geosrs:BoggsEumorphicProjection, geosrs:BromleyProjection, geosrs:CabotProjection, geosrs:CollignonProjection, geosrs:CrasterParabolicProjection, geosrs:DeakinMinimumErrorProjection, geosrs:Eckert1Projection, geosrs:Eckert2Projection, geosrs:Eckert3Projection, geosrs:Eckert4Projection, geosrs:Eckert5Projection, geosrs:Eckert6Projection, geosrs:EqualEarthProjection, geosrs:FaheyProjection, geosrs:FoucautProjection, geosrs:FoucautSinusoidalProjection, geosrs:FournierIIProjection, geosrs:GinzburgVIIIProjection, geosrs:GoodeHomolosineProjection, geosrs:HEALPixProjection, geosrs:HufnagelProjection, geosrs:Kavrayskiy7Projection, geosrs:LoximuthalProjection, geosrs:MayrProjection, geosrs:McBrydeThomasFlatPolarParabolicProjection, geosrs:McBrydeThomasFlatPolarQuarticProjection, geosrs:McBrydeThomasFlatPolarSinusoidalProjection, geosrs:McBrydeThomasIIProjection, geosrs:McBrydeThomasIProjection, geosrs:NaturalEarth2Projection, geosrs:NaturalEarthProjection, geosrs:NellHammerProjection, geosrs:NellProjection, geosrs:OrteliusOvalProjection, geosrs:PutninsP1Projection, geosrs:PutninsP2Projection, geosrs:PutninsP3Projection, geosrs:PutninsP5Projection, geosrs:PutninsP6Projection, geosrs:QuarticAuthalicProjection, geosrs:RobinsonProjection, geosrs:SinusoidalProjection, geosrs:TheTimesProjection, geosrs:ToblerG1Projection, geosrs:ToblerHyperellipticalProjection, geosrs:WagnerIIIProjection, geosrs:WagnerIIProjection, geosrs:WagnerIProjection, geosrs:WagnerIVProjection, geosrs:WagnerVProjection, geosrs:WagnerVProjection, geosrs:WerenskioldIProjection, geosrs:PutninsP3'Projection, geosrs:PutninsP4'Projection, geosrs:PutninsP5'Projection, geosrs:PutninsP6'Projection to be used in SPARQL graph patterns.

### 11.16.1. Class: geosrs:ApianIIProjection

Table 192 – geosrs:ApianIIProjection

URI	<a href="https://w3id.org/geosrs/projection/ApianIIProjection">https://w3id.org/geosrs/projection/ApianIIProjection</a>
Super-classes	<a href="#">ApianIIProjection</a>

### 11.16.2. Class: geosrs:AtlantisProjection

**Table 193** — geosrs:AtlantisProjection

URI	<a href="https://w3id.org/geosrs/projection/AtlantisProjection">https://w3id.org/geosrs/projection/AtlantisProjection</a>
Super-classes	<a href="#">AtlantisProjection</a>

### 11.16.3. Class: geosrs:BaranyillProjection

**Table 194** — geosrs:BaranyillProjection

URI	<a href="https://w3id.org/geosrs/projection/BaranyillProjection">https://w3id.org/geosrs/projection/BaranyillProjection</a>
Super-classes	<a href="#">BaranyillProjection</a>

### 11.16.4. Class: geosrs:BaranyillProjection

**Table 195** — geosrs:BaranyillProjection

URI	<a href="https://w3id.org/geosrs/projection/BaranyillProjection">https://w3id.org/geosrs/projection/BaranyillProjection</a>
Super-classes	<a href="#">BaranyillProjection</a>

### 11.16.5. Class: geosrs:BaranyilProjection

**Table 196** — geosrs:BaranyilProjection

URI	<a href="https://w3id.org/geosrs/projection/BaranyilProjection">https://w3id.org/geosrs/projection/BaranyilProjection</a>
Super-classes	<a href="#">BaranyilProjection</a>

### 11.16.6. Class: geosrs:BaranyilVProjection

**Table 197** — geosrs:BaranyilVProjection

URI	<a href="https://w3id.org/geosrs/projection/BaranyilVProjection">https://w3id.org/geosrs/projection/BaranyilVProjection</a>
Super-classes	<a href="#">BaranyilVProjection</a>

### 11.16.7. Class: geosrs:BoggsEumorphicProjection

**Table 198** — geosrs:BoggsEumorphicProjection

URI	<a href="https://w3id.org/geosrs/projection/BoggsEumorphicProjection">https://w3id.org/geosrs/projection/BoggsEumorphicProjection</a>
Super-classes	<a href="#">BoggsEumorphicProjection</a>

### 11.16.8. Class: geosrs:BromleyProjection

**Table 199** — geosrs:BromleyProjection

URI	<a href="https://w3id.org/geosrs/projection/BromleyProjection">https://w3id.org/geosrs/projection/BromleyProjection</a>
Super-classes	<a href="#">BromleyProjection</a>

### 11.16.9. Class: geosrs:CabotProjection

**Table 200** — geosrs:CabotProjection

URI	<a href="https://w3id.org/geosrs/projection/CabotProjection">https://w3id.org/geosrs/projection/CabotProjection</a>
Super-classes	<a href="#">CabotProjection</a>

### 11.16.10. Class: geosrs:CollignonProjection

**Table 201** — geosrs:CollignonProjection

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

### 11.16.11. Class: geosrs:CrasterParabolicProjection

Table 202 — geosrs:CrasterParabolicProjection

URI	<a href="https://w3id.org/geosrs/projection/CrasterParabolicProjection">https://w3id.org/geosrs/projection/CrasterParabolicProjection</a>
Super-classes	<a href="#">CrasterParabolicProjection</a>

### 11.16.12. Class: geosrs:DeakinMinimumErrorProjection

Table 203 — geosrs:DeakinMinimumErrorProjection

URI	<a href="https://w3id.org/geosrs/projection/DeakinMinimumErrorProjection">https://w3id.org/geosrs/projection/DeakinMinimumErrorProjection</a>
Super-classes	<a href="#">DeakinMinimumErrorProjection</a>

### 11.16.13. Class: geosrs:Eckert1Projection

Table 204 — geosrs:Eckert1Projection

URI	<a href="https://w3id.org/geosrs/projection/Eckert1Projection">https://w3id.org/geosrs/projection/Eckert1Projection</a>
Super-classes	<a href="#">Eckert1Projection</a>

### 11.16.14. Class: geosrs:Eckert2Projection

Table 205 — geosrs:Eckert2Projection

URI	<a href="https://w3id.org/geosrs/projection/Eckert2Projection">https://w3id.org/geosrs/projection/Eckert2Projection</a>
Super-classes	<a href="#">Eckert2Projection</a>

### 11.16.15. Class: geosrs:Eckert3Projection

**Table 206** — geosrs:Eckert3Projection

URI	<a href="https://w3id.org/geosrs/projection/Eckert3Projection">https://w3id.org/geosrs/projection/Eckert3Projection</a>
Super-classes	<a href="#">Eckert3Projection</a>

### 11.16.16. Class: geosrs:Eckert4Projection

**Table 207** — geosrs:Eckert4Projection

URI	<a href="https://w3id.org/geosrs/projection/Eckert4Projection">https://w3id.org/geosrs/projection/Eckert4Projection</a>
Super-classes	<a href="#">Eckert4Projection</a>

### 11.16.17. Class: geosrs:Eckert5Projection

**Table 208** — geosrs:Eckert5Projection

URI	<a href="https://w3id.org/geosrs/projection/Eckert5Projection">https://w3id.org/geosrs/projection/Eckert5Projection</a>
Super-classes	<a href="#">Eckert5Projection</a>

### 11.16.18. Class: geosrs:Eckert6Projection

**Table 209** — geosrs:Eckert6Projection

URI	<a href="https://w3id.org/geosrs/projection/Eckert6Projection">https://w3id.org/geosrs/projection/Eckert6Projection</a>
Super-classes	<a href="#">Eckert6Projection</a>

### 11.16.19. Class: geosrs:EqualEarthProjection

**Table 210** — geosrs:EqualEarthProjection

URI	<a href="https://w3id.org/geosrs/projection/EqualEarthProjection">https://w3id.org/geosrs/projection/EqualEarthProjection</a>
Super-classes	<a href="#">EqualEarthProjection</a>

### 11.16.20. Class: geosrs:FaheyProjection

Table 211 — geosrs:FaheyProjection

URI	<a href="https://w3id.org/geosrs/projection/FaheyProjection">https://w3id.org/geosrs/projection/FaheyProjection</a>
Super-classes	<a href="#">FaheyProjection</a>

### 11.16.21. Class: geosrs:FoucautProjection

Table 212 — geosrs:FoucautProjection

URI	<a href="https://w3id.org/geosrs/projection/FoucautProjection">https://w3id.org/geosrs/projection/FoucautProjection</a>
Super-classes	<a href="#">FoucautProjection</a>

### 11.16.22. Class: geosrs:FoucautSinusoidalProjection

Table 213 — geosrs:FoucautSinusoidalProjection

URI	<a href="https://w3id.org/geosrs/projection/FoucautSinusoidalProjection">https://w3id.org/geosrs/projection/FoucautSinusoidalProjection</a>
Super-classes	<a href="#">FoucautSinusoidalProjection</a>

### 11.16.23. Class: geosrs:FournierIIProjection

Table 214 — geosrs:FournierIIProjection

URI	<a href="https://w3id.org/geosrs/projection/FournierIIProjection">https://w3id.org/geosrs/projection/FournierIIProjection</a>
Super-classes	<a href="#">FournierIIProjection</a>

### 11.16.24. Class: geosrs:GinzburgVIIIProjection



**Table 215** — geosrs:GinzburgVIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/GinzburgVIIIProjection">https://w3id.org/geosrs/projection/GinzburgVIIIProjection</a>
Super-classes	<a href="#">GinzburgVIIIProjection</a>

### 11.16.25. Class: geosrs:GoodeHomolosineProjection

**Table 216** — geosrs:GoodeHomolosineProjection

URI	<a href="https://w3id.org/geosrs/projection/GoodeHomolosineProjection">https://w3id.org/geosrs/projection/GoodeHomolosineProjection</a>
Super-classes	<a href="#">GoodeHomolosineProjection</a>

### 11.16.26. Class: geosrs:HEALPixProjection

**Table 217** — geosrs:HEALPixProjection

URI	<a href="https://w3id.org/geosrs/projection/HEALPixProjection">https://w3id.org/geosrs/projection/HEALPixProjection</a>
Super-classes	<a href="#">HEALPixProjection</a>

### 11.16.27. Class: geosrs:HufnagelProjection

**Table 218** — geosrs:HufnagelProjection

URI	<a href="https://w3id.org/geosrs/projection/HufnagelProjection">https://w3id.org/geosrs/projection/HufnagelProjection</a>
Super-classes	<a href="#">HufnagelProjection</a>

### 11.16.28. Class: geosrs:Kavrayskiy7Projection

**Table 219** — geosrs:Kavrayskiy7Projection

URI	<a href="https://w3id.org/geosrs/projection/Kavrayskiy7Projection">https://w3id.org/geosrs/projection/Kavrayskiy7Projection</a>
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Super-classes	<a href="#">Kavrayskiy7Projection</a>
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### 11.16.29. Class: geosrs:LoximuthalProjection

**Table 220** — geosrs:LoximuthalProjection

URI	<a href="https://w3id.org/geosrs/projection/LoximuthalProjection">https://w3id.org/geosrs/projection/LoximuthalProjection</a>
Super-classes	<a href="#">LoximuthalProjection</a>

### 11.16.30. Class: geosrs:MayrProjection

**Table 221** — geosrs:MayrProjection

URI	<a href="https://w3id.org/geosrs/projection/MayrProjection">https://w3id.org/geosrs/projection/MayrProjection</a>
Super-classes	<a href="#">MayrProjection</a>

### 11.16.31. Class: geosrs:McBrydeThomasFlatPolarParabolicProjection

**Table 222** — geosrs:McBrydeThomasFlatPolarParabolicProjection

URI	<a href="https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarParabolicProjection">https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarParabolicProjection</a>
Super-classes	<a href="#">McBrydeThomasFlatPolarParabolicProjection</a>

### 11.16.32. Class: geosrs:McBrydeThomasFlatPolarQuarticProjection

**Table 223** — geosrs:McBrydeThomasFlatPolarQuarticProjection

URI	<a href="https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarQuarticProjection">https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarQuarticProjection</a>
Super-classes	<a href="#">McBrydeThomasFlatPolarQuarticProjection</a>

### 11.16.33. Class: geosrs:McBrydeThomasFlatPolarSinusoidalProjection

Table 224 — geosrs:McBrydeThomasFlatPolarSinusoidalProjection

URI	<a href="https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarSinusoidalProjection">https://w3id.org/geosrs/projection/McBrydeThomasFlatPolarSinusoidalProjection</a>
Super-classes	<a href="#">McBrydeThomasFlatPolarSinusoidalProjection</a>

### 11.16.34. Class: geosrs:McBrydeThomasIIProjection

Table 225 — geosrs:McBrydeThomasIIProjection

URI	<a href="https://w3id.org/geosrs/projection/McBrydeThomasIIProjection">https://w3id.org/geosrs/projection/McBrydeThomasIIProjection</a>
Super-classes	<a href="#">McBrydeThomasIIProjection</a>

### 11.16.35. Class: geosrs:McBrydeThomasIProjection

Table 226 — geosrs:McBrydeThomasIProjection

URI	<a href="https://w3id.org/geosrs/projection/McBrydeThomasIProjection">https://w3id.org/geosrs/projection/McBrydeThomasIProjection</a>
Super-classes	<a href="#">McBrydeThomasIProjection</a>

### 11.16.36. Class: geosrs:NaturalEarth2Projection

Table 227 — geosrs:NaturalEarth2Projection

URI	<a href="https://w3id.org/geosrs/projection/NaturalEarth2Projection">https://w3id.org/geosrs/projection/NaturalEarth2Projection</a>
Super-classes	<a href="#">NaturalEarth2Projection</a>

### 11.16.37. Class: geosrs:NaturalEarthProjection

**Table 228** — geosrs:NaturalEarthProjection

URI	<a href="https://w3id.org/geosrs/projection/NaturalEarthProjection">https://w3id.org/geosrs/projection/NaturalEarthProjection</a>
Definition	A pseudocylindrical map projection designed by Tom Patterson and introduced in 2008
Super-classes	<a href="#">NaturalEarthProjection</a>

### 11.16.38. Class: geosrs:NellHammerProjection

**Table 229** — geosrs:NellHammerProjection

URI	<a href="https://w3id.org/geosrs/projection/NellHammerProjection">https://w3id.org/geosrs/projection/NellHammerProjection</a>
Super-classes	<a href="#">NellHammerProjection</a>

### 11.16.39. Class: geosrs:NellProjection

**Table 230** — geosrs:NellProjection

URI	<a href="https://w3id.org/geosrs/projection/NellProjection">https://w3id.org/geosrs/projection/NellProjection</a>
Super-classes	<a href="#">NellProjection</a>

### 11.16.40. Class: geosrs:OrteliusOvalProjection

**Table 231** — geosrs:OrteliusOvalProjection

URI	<a href="https://w3id.org/geosrs/projection/OrteliusOvalProjection">https://w3id.org/geosrs/projection/OrteliusOvalProjection</a>
Super-classes	<a href="#">OrteliusOvalProjection</a>

### 11.16.41. Class: geosrs:PutninsP1Projection

**Table 232** — geosrs:PutninsP1Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP1Projection">https://w3id.org/geosrs/projection/PutninsP1Projection</a>
Super-classes	<a href="#">PutninsP1Projection</a>

### 11.16.42. Class: geosrs:PutninsP2Projection

**Table 233** — geosrs:PutninsP2Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP2Projection">https://w3id.org/geosrs/projection/PutninsP2Projection</a>
Super-classes	<a href="#">PutninsP2Projection</a>

### 11.16.43. Class: geosrs:PutninsP3Projection

**Table 234** — geosrs:PutninsP3Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP3Projection">https://w3id.org/geosrs/projection/PutninsP3Projection</a>
Super-classes	<a href="#">PutninsP3Projection</a>

### 11.16.44. Class: geosrs:PutninsP5Projection

**Table 235** — geosrs:PutninsP5Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP5Projection">https://w3id.org/geosrs/projection/PutninsP5Projection</a>
Super-classes	<a href="#">PutninsP5Projection</a>

### 11.16.45. Class: geosrs:PutninsP6Projection

**Table 236** — geosrs:PutninsP6Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP6Projection">https://w3id.org/geosrs/projection/PutninsP6Projection</a>
Super-classes	<a href="#">PutninsP6Projection</a>

## 11.16.46. Class: geosrs:QuarticAuthalicProjection

Table 237 — geosrs:QuarticAuthalicProjection

URI	<a href="https://w3id.org/geosrs/projection/QuarticAuthalicProjection">https://w3id.org/geosrs/projection/QuarticAuthalicProjection</a>
Super-classes	<a href="#">QuarticAuthalicProjection</a>

## 11.16.47. Class: geosrs:RobinsonProjection

Table 238 — geosrs:RobinsonProjection

URI	<a href="https://w3id.org/geosrs/projection/RobinsonProjection">https://w3id.org/geosrs/projection/RobinsonProjection</a>
Super-classes	<a href="#">RobinsonProjection</a>

## 11.16.48. Class: geosrs:SinusoidalProjection

Table 239 — geosrs:SinusoidalProjection

URI	<a href="https://w3id.org/geosrs/projection/SinusoidalProjection">https://w3id.org/geosrs/projection/SinusoidalProjection</a>
Super-classes	<a href="#">SinusoidalProjection</a>

## 11.16.49. Class: geosrs:TheTimesProjection

Table 240 — geosrs:TheTimesProjection

URI	<a href="https://w3id.org/geosrs/projection/TheTimesProjection">https://w3id.org/geosrs/projection/TheTimesProjection</a>
Super-classes	<a href="#">TheTimesProjection</a>

## 11.16.50. Class: geosrs:ToblerG1Projection

**Table 241** — geosrs:ToblerG1Projection

URI	<a href="https://w3id.org/geosrs/projection/ToblerG1Projection">https://w3id.org/geosrs/projection/ToblerG1Projection</a>
Super-classes	<a href="#">ToblerG1Projection</a>

### 11.16.51. Class: geosrs:ToblerHyperellipticalProjection

**Table 242** — geosrs:ToblerHyperellipticalProjection

URI	<a href="https://w3id.org/geosrs/projection/ToblerHyperellipticalProjection">https://w3id.org/geosrs/projection/ToblerHyperellipticalProjection</a>
Super-classes	<a href="#">ToblerHyperellipticalProjection</a>

### 11.16.52. Class: geosrs:WagnerIIIProjection

**Table 243** — geosrs:WagnerIIIProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerIIIProjection">https://w3id.org/geosrs/projection/WagnerIIIProjection</a>
Super-classes	<a href="#">WagnerIIIProjection</a>

### 11.16.53. Class: geosrs:WagnerIIProjection

**Table 244** — geosrs:WagnerIIProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerIIProjection">https://w3id.org/geosrs/projection/WagnerIIProjection</a>
Super-classes	<a href="#">WagnerIIProjection</a>

### 11.16.54. Class: geosrs:WagnerIProjection

**Table 245** — geosrs:WagnerIProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerIProjection">https://w3id.org/geosrs/projection/WagnerIProjection</a>
Super-classes	<a href="#">WagnerIProjection</a>

### 11.16.55. Class: geosrs:WagnerIVProjection

Table 246 — geosrs:WagnerIVProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerIVProjection">https://w3id.org/geosrs/projection/WagnerIVProjection</a>
Super-classes	<a href="#">WagnerIVProjection</a>

### 11.16.56. Class: geosrs:WagnerVIProjection

Table 247 — geosrs:WagnerVIProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerVIProjection">https://w3id.org/geosrs/projection/WagnerVIProjection</a>
Super-classes	<a href="#">WagnerVIProjection</a>

### 11.16.57. Class: geosrs:WagnerVProjection

Table 248 — geosrs:WagnerVProjection

URI	<a href="https://w3id.org/geosrs/projection/WagnerVProjection">https://w3id.org/geosrs/projection/WagnerVProjection</a>
Super-classes	<a href="#">WagnerVProjection</a>

### 11.16.58. Class: geosrs:WerenskioldIProjection

Table 249 — geosrs:WerenskioldIProjection

URI	<a href="https://w3id.org/geosrs/projection/WerenskioldIProjection">https://w3id.org/geosrs/projection/WerenskioldIProjection</a>
Super-classes	<a href="#">WerenskioldIProjection</a>

### 11.16.59. Class: geosrs:PutninsP3'Projection



**Table 250** — geosrs:PutninsP3'Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP3'Projection">https://w3id.org/geosrs/projection/PutninsP3'Projection</a>
Super-classes	<a href="#">PutninsP3'Projection</a>

### 11.16.60. Class: geosrs:PutninsP4'Projection

**Table 251** — geosrs:PutninsP4'Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP4'Projection">https://w3id.org/geosrs/projection/PutninsP4'Projection</a>
Super-classes	<a href="#">PutninsP4'Projection</a>

### 11.16.61. Class: geosrs:PutninsP5'Projection

**Table 252** — geosrs:PutninsP5'Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP5'Projection">https://w3id.org/geosrs/projection/PutninsP5'Projection</a>
Super-classes	<a href="#">PutninsP5'Projection</a>

### 11.16.62. Class: geosrs:PutninsP6'Projection

**Table 253** — geosrs:PutninsP6'Projection

URI	<a href="https://w3id.org/geosrs/projection/PutninsP6'Projection">https://w3id.org/geosrs/projection/PutninsP6'Projection</a>
Super-classes	<a href="#">PutninsP6'Projection</a>

## 11.17. Stereographic Projections

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## REQUIREMENT 25: STEREOGRAPHIC PROJECTIONS

IDENTIFIER	/req/Stereographic_Projections
STATEMENT	Implementations shall allow the RDFS classes <code>geosrs:MillerOblatedStereographicProjection</code> , <code>geosrs:RoussilheProjection</code> to be used in SPARQL graph patterns.

### 11.17.1. Class: `geosrs:MillerOblatedStereographicProjection`

Table 254 — `geosrs:MillerOblatedStereographicProjection`

URI	<a href="https://w3id.org/geosrs/projection/MillerOblatedStereographicProjection">https://w3id.org/geosrs/projection/MillerOblatedStereographicProjection</a>
Super-classes	<a href="#">MillerOblatedStereographicProjection</a>

### 11.17.2. Class: `geosrs:RoussilheProjection`

Table 255 — `geosrs:RoussilheProjection`

URI	<a href="https://w3id.org/geosrs/projection/RoussilheProjection">https://w3id.org/geosrs/projection/RoussilheProjection</a>
Super-classes	<a href="#">RoussilheProjection</a>



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# PLANET MODULE

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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

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

## A.1. IGN Ontology



**Table A.2 – Alignment: IGN Ontology**

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

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
<a href="#">geosrs:CRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:CRS</a>	-
<a href="#">geosrs:CompoundCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:CompoundCRS</a>	-
<a href="#">geosrs:Extent</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:Extent</a>	-
<a href="#">geosrs:GeodeticCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:GeodeticCRS</a>	-
<a href="#">geosrs:GeographicBoundingBox</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:GeographicBoundingBox</a>	-
<a href="#">geosrs:ProjectedCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:ProjectedCRS</a>	-
<a href="#">geosrs:SingleCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:SingleCRS</a>	-
<a href="#">geosrs:SingleCRSList</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:SingleCRSList</a>	-
<a href="#">geosrs:VerticalCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ign:VerticalCRS</a>	-

## A.2. ISO19111 Ontology

**Table A.3** – Alignment: ISO19111 Ontology

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
<a href="#">geosrs:CoordinateSystem</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:CoordinateSystem</a>	-
<a href="#">geosrs:Datum</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:Datum</a>	-
<a href="#">geosrs:Ellipsoid</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:Ellipsoid</a>	-
<a href="#">geosrs:CRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:CRS</a>	-
<a href="#">geosrs:CompoundCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:CompoundCRS</a>	-
<a href="#">geosrs:EngineeringCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:EngineeringCRS</a>	-
<a href="#">geosrs:GeodeticCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:GeodeticCRS</a>	-

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
<a href="#">geosrs:GeographicCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:GeographicCRS</a>	-
<a href="#">geosrs:ParametricCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:ParametricCRS</a>	-
<a href="#">geosrs:ProjectedCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:ProjectedCRS</a>	-
<a href="#">geosrs:SingleCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:SingleCRS</a>	-
<a href="#">geosrs:TemporalCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:TemporalCRS</a>	-
<a href="#">geosrs:VerticalCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">iso19111:VerticalCRS</a>	-

## A.3. IFC Ontology

**Table A.4** – Alignment: IFC Ontology

FROM ELEMENT	MAPPING RELATION	TO ELEMENT	NOTES
<a href="#">geosrs:AxisDirection</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ifc:IfcDirection</a>	-
<a href="#">geosrs:CRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ifc:IfcCoordinateReferenceSystem</a>	-
<a href="#">geosrs:CoordinateOperation</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ifc:IfcCoordinateOperation</a>	-
<a href="#">geosrs:ProjectedCRS</a>	<a href="#">owl:equivalentClass</a>	<a href="#">ifc:IfcProjectedCRS</a>	-
<a href="#">geosrs:axis</a>	<a href="#">owl:equivalentProperty</a>	<a href="#">ifc:axis_IfcAxis1Placement</a>	-
<a href="#">geosrs:sourceCRS</a>	<a href="#">owl:equivalentProperty</a>	<a href="#">ifc:sourceCRS</a>	-
<a href="#">geosrs:targetCRS</a>	<a href="#">owl:equivalentProperty</a>	<a href="#">ifc:targetCRS</a>	-



# ANNEX B (INFORMATIVE) SHACL SHAPES

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## ANNEX B (INFORMATIVE) SHACL SHAPES

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Overview

### Overview

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# ANNEX C (INFORMATIVE) REVISION HISTORY

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## ANNEX C (INFORMATIVE) REVISION HISTORY

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



# BIBLIOGRAPHY







## BIBLIOGRAPHY

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**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)

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