

# ISA Programme Location Core Vocabulary

Second version in w3.org/ns space - 2015-03-23

**Author:**

[EU ISA Programme Core Vocabularies Working Group \(Location Task Force\)](#)

**Editor(s):**

[Andrea Perego](#), European Commission - Joint Research Centre (JRC)  
Michael Lutz, European Commission - Joint Research Centre (JRC)

**Previous version**

The original HTML representation of the vocabulary is [archived](#).

This document is also available in the following formats: [application/rdf+xml](#) [text/turtle](#)

Copyright © European Union, 2012-2015. This vocabulary is published under the [European Commission / ISA Open Metadata Licence v1.1](#)

---

## Abstract

The ISA Programme Location Core Vocabulary provides a minimum set of classes and properties for describing any place in terms of its name, address or geometry. The vocabulary is specifically designed to aid the publication of data that is interoperable with [EU INSPIRE Directive](#). It is closely integrated with the [Business](#) and [Person](#) Core Vocabularies of the EU ISA Programme, now available in W3C space as, respectively, the [Registered Organization vocabulary](#) and [ISA Person Core Vocabulary](#).

## Status of this document

*This section describes the status of this document at the time of its publication. Other documents may supersede it.*

This document was originally produced by the [EU ISA Programme Core Vocabularies Working Group \(Location Task Force\)](#), following the [Process and Methodology for Developing Core Vocabularies](#).

This is a new version by the [Locations and Addresses Community Group](#). Comments and queries should be sent to that group via [public-locadd@w3.org](mailto:public-locadd@w3.org). Terms defined here may be deprecated by that or future groups but will not disappear or their definitions change other than to provide clarification of an existing definition.

---

## Table of Contents

- [Introduction](#)
- [Namespace](#)
- [Vocabulary Terms at a Glance](#)
- [Classes](#)
- [Properties](#)
- [Conformance Statement](#)
- [Change History](#)

## Introduction

The ISA Programme Location Core Vocabulary was developed by the [EU ISA Programme Core Vocabularies Working Group \(Location Task Force\)](#). This is the namespace document, generated from the associated RDF schema. Full documentation is provided in the [Core Vocabularies Specification](#) document itself. This includes background information, use cases, the conceptual model and full definitions for all terms used.

## Namespace

The URI for this vocabulary is

`http://www.w3.org/ns/locn#`

When abbreviating terms the suggested prefix is `locn`

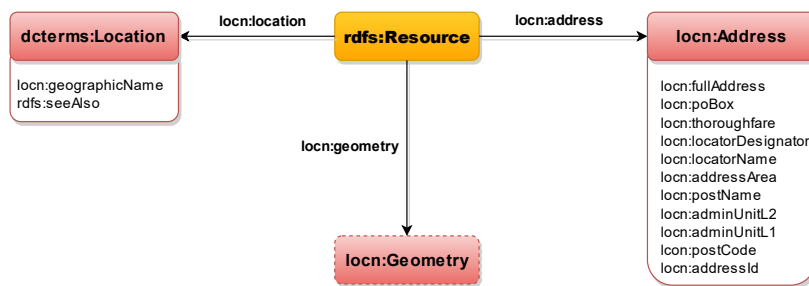
Each class or property in the vocabulary has a URI constructed by appending a term name to the vocabulary URI. For example:

`http://www.w3.org/ns/locn#Address`

The ISA Programme Location Core Vocabulary includes terms defined in the following namespaces:

- <http://purl.org/dc/terms/>
- <http://www.w3.org/2000/01/rdf-schema#>

## Vocabulary Terms at a Glance

**Classes (3):**

- [Location](#) (testing)
- [Address](#) (testing)
- [Geometry](#) (unstable)

**Properties (16):**

- [location](#) (testing)
- [geographic name](#) (testing)
- [geographic identifier](#) (unstable)
- [geometry](#) (testing)
- [address](#) (testing)
- [full address](#) (testing)
- [PO box](#) (testing)
- [thoroughfare](#) (testing)
- [locator designator](#) (testing)
- [locator name](#) (testing)
- [address area](#) (testing)
- [post name](#) (testing)
- [admin unit level 2](#) (testing)
- [admin unit level 1](#) (testing)
- [post code](#) (testing)
- [address ID](#) (unstable)

## Classes

This section provides the formal definition of each class in the vocabulary.

### Class Location

<b>Type of Term</b>	Class
<b>QName</b>	dcterms:Location
<b>URI</b>	<a href="http://purl.org/dc/terms/Location">http://purl.org/dc/terms/Location</a>
<b>Term status</b>	testing
<b>Definition</b>	dcterms:Location class fully represents the ISA Programme Location Core Vocabulary class of Location.
<b>Usage Note</b>	This is the key class for the ISA Programme Location Core Vocabulary and represents any location, irrespective of size or other restriction.

### Class Address

<b>Type of Term</b>	Class
<b>QName</b>	locn:Address
<b>URI</b>	<a href="http://www.w3.org/ns/locn#Address">http://www.w3.org/ns/locn#Address</a>
<b>Term status</b>	testing
<b>Definition</b>	An "address representation" as conceptually defined by the <a href="#">INSPIRE Address Representation data type</a> . The <a href="#">locn:addressId</a> property may be used to link this locn:Address to other representations.

### Class Geometry

<b>Type of Term</b>	Class
<b>QName</b>	locn:Geometry
<b>URI</b>	<a href="http://www.w3.org/ns/locn#Geometry">http://www.w3.org/ns/locn#Geometry</a>
<b>Term status</b>	unstable
<b>Definition</b>	The locn:Geometry class provides the means to identify a location as a point, line, polygon, etc. expressed using coordinates in some coordinate reference system.

<b>Usage Note</b>	This class defines the notion of "geometry" at the conceptual level, and it shall be encoded by using different formats (see usage note of the <a href="#">locn:geometry</a> property).
-------------------	---

## Properties

This section provides the formal definition of each property in the vocabulary.

### Property *location*

<b>Type of Term</b>	Property
<b>QName</b>	locn:location
<b>URI</b>	<a href="http://www.w3.org/ns/locn#location">http://www.w3.org/ns/locn#location</a>
<b>Term status</b>	testing
<b>Range</b>	<a href="http://purl.org/dc/terms/Location">http://purl.org/dc/terms/Location</a>
<b>Definition</b>	The location property links any resource to the Location Class. Asserting the location relationship implies only that the domain has some connection to a Location in time or space. It does not imply that the resource is necessarily at that location at the time when the assertion is made.

### Property *geographic name*

<b>Type of Term</b>	Property
<b>QName</b>	locn:geographicName
<b>URI</b>	<a href="http://www.w3.org/ns/locn#geographicName">http://www.w3.org/ns/locn#geographicName</a>
<b>Term status</b>	testing
<b>Definition</b>	<p>A geographic name is a proper noun applied to a spatial object. Taking the example used in the relevant <a href="#">INSPIRE data specification</a> (page 18), the following are all valid geographic names for the Greek capital:</p> <ul style="list-style-type: none"><li>• Αθήνα (the Greek endonym written in the Greek script)</li><li>• Athína (the standard Romanisation of the endonym)</li><li>• Athens (the English language exonym)</li></ul> <p>For INSPIRE-conformant data, provide the metadata for the geographic name using a skos:Concept as a datatype.</p>

### Property *geographic identifier*

<b>Type of Term</b>	Property
<b>QName</b>	rdfs:seeAlso
<b>URI</b>	<a href="http://www.w3.org/2000/01/rdf-schema#seeAlso">http://www.w3.org/2000/01/rdf-schema#seeAlso</a>
<b>Term status</b>	unstable
<b>Definition</b>	rdfs:seeAlso fully represents the ISA Programme Location Core Vocabulary concept of a geographic identifier.
<b>Usage Note</b>	Used in the ISA Programme Location Core Vocabulary to provide a URI that identifies the location. This should be expressed using the rdfs:seeAlso property unless the identifier is already the subject of the description. Examples include URIs from <a href="#">GeoNames.org</a> and <a href="#">DBpedia</a> such as <a href="http://dbpedia.org/resource/ISO_3166-2:XX">http://dbpedia.org/resource/ISO_3166-2:XX</a> where XX is the ISO 3166 two character code for a country.

### Property *geometry*

<b>Type of Term</b>	Property
<b>QName</b>	locn:geometry
<b>URI</b>	<a href="http://www.w3.org/ns/locn#geometry">http://www.w3.org/ns/locn#geometry</a>
<b>Term status</b>	testing
<b>Range</b>	<a href="http://www.w3.org/ns/locn#Geometry">http://www.w3.org/ns/locn#Geometry</a>
<b>Definition</b>	Associates any resource with the corresponding geometry.
<b>Usage Note</b>	<p>Depending on how a geometry is encoded, the range of this property may be one of the following:</p> <ul style="list-style-type: none"><li>• a literal (e.g., WKT - string literal -, GML, KML - XML literal)</li><li>• a geometry class, as those defined in the OGC's <a href="#">GeoSPARQL specification</a>, in the W3C's <a href="#">Basic Geo (WGS84 lat/long) vocabulary</a>, and</li></ul>

	<p>at <a href="https://schema.org/">schema.org</a>;</p> <ul style="list-style-type: none"> <li>geocoded URIs, as <a href="#">geo</a> or <a href="#">GeoHash</a> URIs, treated as URI references.</li> </ul> <p>For interoperability reasons, it is recommended using one of the following:</p> <ul style="list-style-type: none"> <li>Any geometry: <ul style="list-style-type: none"> <li>WKT, GML, and RDF+WKT/GML, as per the <a href="#">GeoSPARQL specification</a>.</li> <li><a href="#">KML (Keyhole Markup Language)</a> - note that KML supports the following geometries only: point, line string, linear ring, and polygon.</li> <li>RDF as per the <a href="#">schema.org</a> vocabulary (see classes <a href="#">schema:GeoCoordinates</a> and <a href="#">schema:GeoShape</a>).</li> </ul> </li> <li>Points: one of the above, or: <ul style="list-style-type: none"> <li>RDF as per the <a href="#">W3C Basic Geo (WGS84 lat/long) vocabulary</a>.</li> <li><a href="#">GeoHash</a> URIs.</li> <li><a href="#">geo</a> URIs.</li> </ul> </li> </ul>
Example	<p>The following are examples of equivalent statements using different geometry encodings. In the examples, prefix <code>gsp</code> is used for namespace URI <code>http://www.opengis.net/ont/geosparql#</code>, whereas prefix <code>sf</code> is used for namespace URI <code>http://www.opengis.net/ont/sf#</code>.</p> <ul style="list-style-type: none"> <li>WKT (GeoSPARQL) <pre>:Resource locn:geometry   "&lt;http://www.opengis.net/def/crs/OGC/1.3/CRS84&gt; Point(-0.001475 51.477811)"^^gsp:wktLiteral .</pre> </li> <li>GML <pre>:Resource locn:geometry   "&lt;gml:Point srsName='http://www.opengis.net/def/crs/OGC/1.3/CRS84'&gt;     &lt;gml:coordinates&gt;-0.001475, 51.477811&lt;/gml:coordinates&gt;&lt;/gml:Point&gt;"^^gsp:gmlLiteral .</pre> </li> <li>RDF+WKT (GeoSPARQL) <pre>:Resource locn:geometry   [ a sf:Point; gsp:asWKT "&lt;http://www.opengis.net/def/crs/OGC/1.3/CRS84&gt; Point(-0.001475 51.477811)"^^gsp:wktLiteral ] .</pre> </li> <li>RDF+GML (GeoSPARQL) <pre>:Resource locn:geometry   [ a sf:Point; gsp:asGML     "&lt;gml:Point srsName='http://www.opengis.net/def/crs/OGC/1.3/CRS84'&gt;       &lt;gml:coordinates&gt;-0.001475, 51.477811&lt;/gml:coordinates&gt;&lt;/gml:Point&gt;"^^gsp:gmlLiteral ] .</pre> </li> <li>RDF (WGS84 lat/long) <pre>:Resource locn:geometry [ a geo:Point; geo:lat "51.477811"; geo:long "-0.001475" ] .</pre> </li> <li>RDF (schema.org) <pre>:Resource locn:geometry [ a schema:GeoCoordinates; schema:latitude "51.477811"; schema:longitude "-0.001475" ] .</pre> </li> <li>geo URI <pre>:Resource locn:geometry &lt;geo:51.477811,-0.001475;u=0;crs=wgs84&gt; .</pre> </li> <li>GeoHash URI <pre>:Resource locn:geometry &lt;http://geohash.org/gcpuzgnzvxp&gt; .</pre> </li> </ul>

### Property *address*

Type of Term	Property
QName	locn:address
URI	<a href="http://www.w3.org/ns/locn#address">http://www.w3.org/ns/locn#address</a>
Term status	testing
Range	<a href="http://www.w3.org/ns/locn#Address">http://www.w3.org/ns/locn#Address</a>
Definition	The locn:address property relationship associates any resource with the <a href="#">locn:Address</a> class

### Property *full address*

Type of Term	Property
QName	locn:fullAddress
URI	<a href="http://www.w3.org/ns/locn#fullAddress">http://www.w3.org/ns/locn#fullAddress</a>
Term status	testing
Domain	<a href="http://www.w3.org/ns/locn#Address">http://www.w3.org/ns/locn#Address</a>
Range	<a href="http://www.w3.org/2000/01/rdf-schema#Literal">http://www.w3.org/2000/01/rdf-schema#Literal</a>

<b>Definition</b>	The complete address written as a string, with or without formatting. The domain of locn:fullAddress is <a href="#">locn:Address</a> .
-------------------	--

*Property PO box*

<b>Type of Term</b>	Property
<b>QName</b>	locn:poBox
<b>URI</b>	<a href="http://www.w3.org/ns/locn#poBox">http://www.w3.org/ns/locn#poBox</a>
<b>Term status</b>	testing
<b>Domain</b>	<a href="http://www.w3.org/ns/locn#Address">http://www.w3.org/ns/locn#Address</a>
<b>Range</b>	<a href="http://www.w3.org/2000/01/rdf-schema#Literal">http://www.w3.org/2000/01/rdf-schema#Literal</a>
<b>Definition</b>	The Post Office Box number. The domain of locn:poBox is <a href="#">locn:Address</a> .

*Property thoroughfare*

<b>Type of Term</b>	Property
<b>QName</b>	locn:thoroughfare
<b>URI</b>	<a href="http://www.w3.org/ns/locn#thoroughfare">http://www.w3.org/ns/locn#thoroughfare</a>
<b>Term status</b>	testing
<b>Domain</b>	<a href="http://www.w3.org/ns/locn#Address">http://www.w3.org/ns/locn#Address</a>
<b>Range</b>	<a href="http://www.w3.org/2000/01/rdf-schema#Literal">http://www.w3.org/2000/01/rdf-schema#Literal</a>
<b>Definition</b>	An address component that represents the name of a passage or way through from one location to another. A thoroughfare is not necessarily a road, it might be a waterway or some other feature. The domain of locn:thoroughfare is <a href="#">locn:Address</a> .

*Property locator designator*

<b>Type of Term</b>	Property
<b>QName</b>	locn:locatorDesignator
<b>URI</b>	<a href="http://www.w3.org/ns/locn#locatorDesignator">http://www.w3.org/ns/locn#locatorDesignator</a>
<b>Term status</b>	testing
<b>Definition</b>	A number or a sequence of characters that uniquely identifies the locator within the relevant scope(s). The full identification of the locator could include one or more locator designators.

*Property locator name*

<b>Type of Term</b>	Property
<b>QName</b>	locn:locatorName
<b>URI</b>	<a href="http://www.w3.org/ns/locn#locatorName">http://www.w3.org/ns/locn#locatorName</a>
<b>Term status</b>	testing
<b>Definition</b>	Proper noun(s) applied to the real world entity identified by the locator. The locator name could be the name of the property or complex, of the building or part of the building, or it could be the name of a room inside a building.

*Property address area*

<b>Type of Term</b>	Property
<b>QName</b>	locn:addressArea
<b>URI</b>	<a href="http://www.w3.org/ns/locn#addressArea">http://www.w3.org/ns/locn#addressArea</a>
<b>Term status</b>	testing
<b>Domain</b>	<a href="http://www.w3.org/ns/locn#Address">http://www.w3.org/ns/locn#Address</a>
<b>Range</b>	<a href="http://www.w3.org/2000/01/rdf-schema#Literal">http://www.w3.org/2000/01/rdf-schema#Literal</a>
<b>Definition</b>	The name or names of a geographic area or locality that groups a number of addressable objects for addressing purposes, without being an administrative unit. This would typically be part of a city, a neighbourhood or village. The domain of locn:addressArea is <a href="#">locn:Address</a> .

*Property post name*

Type of Term	Property
QName	locn:postName
URI	http://www.w3.org/ns/locn#postName
Term status	testing
Domain	http://www.w3.org/ns/locn#Address
Range	http://www.w3.org/2000/01/rdf-schema#Literal
Definition	The key postal division of the address, usually the city. (INSPIRE's definition is "One or more names created and maintained for postal purposes to identify a subdivision of addresses and postal delivery points."). The domain of locn:postName is <a href="#">locn:Address</a> .

#### Property *admin unit level 2*

Type of Term	Property
QName	locn:adminUnitL2
URI	http://www.w3.org/ns/locn#adminUnitL2
Term status	testing
Domain	http://www.w3.org/ns/locn#Address
Definition	The region of the address, usually a county, state or other such area that typically encompasses several localities. The domain of locn:adminUnitL2 is <a href="#">locn:Address</a> and the range is a literal, conceptually defined by the <a href="#">INSPIRE Geographical Name data type</a> .

#### Property *admin unit level 1*

Type of Term	Property
QName	locn:adminUnitL1
URI	http://www.w3.org/ns/locn#adminUnitL1
Term status	testing
Domain	http://www.w3.org/ns/locn#Address
Definition	The uppermost administrative unit for the address, almost always a country. The domain of locn:adminUnitL1 is <a href="#">locn:Address</a> and the range is a literal, conceptually defined by the <a href="#">INSPIRE Geographical Name data type</a> .
Usage Note	Best practice is to use the ISO 3166-1 code but if this is inappropriate for the context, country names should be provided in a consistent manner to reduce ambiguity. For example, either write 'United Kingdom' or 'UK' consistently throughout the data set and avoid mixing the two.

#### Property *post code*

Type of Term	Property
QName	locn:postCode
URI	http://www.w3.org/ns/locn#postCode
Term status	testing
Domain	http://www.w3.org/ns/locn#Address
Range	http://www.w3.org/2000/01/rdf-schema#Literal
Definition	The post code (a.k.a postal code, zip code etc.). Post codes are common elements in many countries' postal address systems. The domain of locn:postCode is <a href="#">locn:Address</a> .

#### Property *address ID*

Type of Term	Property
QName	locn:addressId
URI	http://www.w3.org/ns/locn#addressId
Term status	unstable
Domain	http://www.w3.org/ns/locn#Address
Range	http://www.w3.org/2000/01/rdf-schema#Literal

**Definition**

The concept of adding a globally unique identifier for each instance of an address is a crucial part of the INSPIRE data spec. The domain of `locn:addressId` is [locn:Address](#).

## Conformance Statement

A conformant implementation of this vocabulary MUST understand all vocabulary terms defined in this document.

## Change History

2015-03-23: Updates in the namespace document and in the RDF/XML and Turtle schemas:

- Fixed copyright notice.
- Added class and property diagram.
- Updated GeoSPARQL (a) namespace URIs and (b) datatype names in the examples of property [locn:geometry](#), based on [version 1.0 of the GeoSPARQL specification](#), and added a note in the examples.
  - prefix `ogc` (<http://www.opengis.net/rdf#>) replaced with `gsp` (<http://www.opengis.net/ont/geosparql#>) and `sf` (<http://www.opengis.net/ont/sf#>)
  - `ogc:WKTLiteral` → `gsp:wktLiteral`
  - `ogc:GMLLiteral` → `gsp:gmlLiteral`
- Added namespace declarations for all namespace prefixes used in LOCN namespace document, even though they are not used in class/property definitions.
- Corrected the endonym of the Greek capital written in the Greek script in the definition of class [locn:geographicName](#) (Αθνα → Αθήνα).
- Fixed links and typos, minor revisions made to the textual descriptions.

2013-12-21: (PhilA) Update in RDF/XML and Turtle schemas:

- Updated `voaf` namespace.
- Corrected links to different distributions of the schema.
- Removed `xml:base` and used <http://www.w3.org/ns/locn> as the schema URI cf. original which used the namespace URI (with the final # character).

2013-11-25: Changes since [final draft version](#) released by the [EU ISA Programme Core Vocabularies Working Group \(Location Task Force\)](#)

- Revised usage note of class [locn:Geometry](#). The text describing its recommended usage has been moved to usage note of property [locn:geometry](#).
- Dropped domain/range restriction for [locn:geographicName](#).
- Dropped domain/range restriction for [locn:locatorDesignator](#). Free text definition updated accordingly.
- Dropped domain/range restriction for [locn:locatorName](#). Free text definition updated accordingly.
- Corrected free text definition of property [locn:geometry](#) (its domain is "any resource", and not a "location").
- Revised usage note of property [locn:geometry](#) to include text about recommended usage, formerly included in the usage note of class [locn:Geometry](#).
- Revised usage note and examples of property [locn:geometry](#) to include support to geocoded URIs (e.g., `geo` URIs, GeoHash URIs).
- Added term status. All terms have been set to "testing", with the exception of class [locn:Geometry](#) and properties [rdfs:seeAlso](#) (geographic identifier) and [locn:addressId](#).
- Renamed subject in Turtle examples (`ex:a` → `:Resource`).
- Fixed links and typos, minor revisions made to the textual descriptions.

Last updated: \$Date: 2015/04/25 07:50:35 \$

[Locations and Addresses Community Group](#), [public-locadd@w3.org](mailto:public-locadd@w3.org).