Spatial location

> Do not use Spatial Location for describing the spatial **coverage** of a registry object. Spatial coverage is the spatial topic or characteristics of an entity or object; it is a kind of subject description. Use Spatial Coverage for describing things like the locations where data observations were made or locations that were the subject of experiments or observations.

Meaning & purpose

Spatial location describes where a registry object (such as a collection) is physically located, using geospatial coordinates such as latitude and longitude.

This element can be used to generate place markers on maps that show the physical address of collections, particularly cultural collections such as museums, galleries and archives. It may also be used to describe the location of a party, or of a service such as an instrument. The data values for describing spatial location are the same as used for spatial coverage. Spatial location is contained within the Location element wrapper.

Spatial Location attributes

Spatial Type

A Spatial Type is required. Preferably specify a type from the Spatial Type vocabulary:

Type	Explanation
dcmiPoint	Spatial location information for a point in space specified in DCMI Point notation
gmlKmlPolyCoords	A set of KML long/lat co-ordinates derived from GML defining a polygon, as described by the KML coordinates element but without the altitude component
gpx	GPX (the GPS Exchange Format) is a light-weight XML data format for the interchange of GPS data (waypoints, routes, and tracks) between applications and Web services on the Internet
iso31661	ISO 3166-1:2006 Codes for the representation of names of countries and their subdivisions - Part 1: Country codes
iso31662	ISO 3166-2:2007 Codes for the representation of names of countries and their subdivisions - Part 2: Country subdivision codes
iso31663	ISO 3166-3:1999 Establishes codes for country names which have been deleted from ISO 3166-1 since its first publication in 1974
iso19139dcmiBox	DCMI Box notation derived from bounding box metadata, conformant with the ISO/TS 19139:2007 schema
kmlPolyCoords	A set of KML long/lat co-ordinates defining a polygon as described by the KML coordinates element
text	Free-text representation of spatial location. Use this to record place or region names where geospatial notation is not available

Language attribute

The language in which the spatial location metadata is recorded may be included in the Lang attribute, but is not displayed or searchable in Research Data Australia. The RDA Registry accepts language codes consistent with IETF's BCP (Best Current Practice) 47: Tags for Identifying Languages (incorporating RFC 5646). Language codes may be selected from:

- IANA Language subtag registry (an IANA Language subtag lookup tool is available also)

Use in Research Data Australia

Geospatial information recorded in the Spatial Location element will generate maps in Research Data Australia, if valid, correctly formatted data of Types "dcmiPoint", "iso19139dcmiBox", "gmlKmlPolyCoords" or "kmlPolyCoords" is provided. Multiple points or polygons will all be displayed on the one map.

Best Practice

- The geospatial information format must be specified using Spatial Type e.g. *kmlPolyCoords.* If this information is encoded in a markup language (i.e. gml, gpx and/or kml) a URL pointing to this information must be provided.
- Include the spatial values e.g. *latitude and longitude coordinates*. If you are entering metadata manually into the RDA Registry, you can search for places or regions or draw points or areas onto the map directly. An alternative is to use Geoscience Australia's Place Names Search which includes places names, boundaries and physical features.
- To display a map in Research Data Australia, ensure valid spatial data of types *dcmiPoint, iso19139dcmiBox, gmlKmlPolyCoords* or *kmlPolyCoords* is provided.
- To display more than one point or polygon on a map, add each point or polygon into repeated XML elements.
- For registry objects located in Australia, if an address is not available, include an ISO 3166-2 occurrence of the Spatial Location element with the value 'AU' and, when the state is known, an ISO 3166-2 occurrence of the Spatial Location element with the appropriate state code: AU-ACT | AU-NSW | AU-NT | AU-QLD | AU-SA | AU-TAS | AU-VIC | AU-WA.

XML encoding example

Spatial location using country and subdivision code and Type iso31662:

```
<location>
 <spatial type="iso31662">AU-TAS</spatial>
</location>
```

Spatial location using KML coordinates:

```
<location>
  <spatial type="kmlPolyCoords">115.625357,-31.767240 115.754393,
-31.774751 115.757967,-32.462250 115.513179,-32.393528</spatial>
</location>
```

Change history

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Date	Change history
26 October 2010	First web publication
3 May 2011	Updated information to clarify when to use spatial location and when to use the coverage element
27 July 2017	Page reviewed and updated. KML example added.