The European Commission’s science and knowledge service

Joint Research Centre
GeoDCAT-AP
Sharing geospatial metadata across platforms

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What is GeoDCAT-AP

• Geospatial extension to **DCAT-AP** (DCAT application profile for data portals in Europe)

• Developed in the framework of the EU Programme “Interoperability Solutions for European Public Administrations” (**ISA**)  

• Meant to provide a DCAT-AP compliant representation for the set of metadata elements included in  
  • **INSPIRE** metadata  
  • The core profile of **ISO 19115:2003**
INSPIRE in a nutshell

- Provides **access to cross-border EU data** to be used in support to **EU environmental policies**
- Development & revision process involving **experts & stakeholders from all EU Member States** (public & private sectors, research institutions)
- Comprehensive **legal & technical framework** for **data & service interoperability**
- **Cross-sector thematic scope**
The underlying platform & communities

• INSPIRE is implemented with geospatial standards, used world-wide and across communities (public administrations, private sector, research institutions)

• These technologies are well-consolidated and supported by widely adopted tools

• These standards and technologies are integral part of the data management workflow of all the organisations dealing with geospatial data
INSPIRE & GeoDCAT-AP: Why?

Agree upon a common RDF representation
- RDF is increasingly being used as an alternative representation of INSPIRE metadata
- Without a harmonised INSPIRE-to-RDF mapping, metadata interoperability is lost

Facilitate cross-sector sharing of INSPIRE metadata
- INSPIRE metadata are already being harvested by and published in cross-domain data catalogues at the national and/or regional level
- INSPIRE metadata are harvested and published also on the European Data Portal, which uses DCAT-AP as a metadata interchange format
GeoDCAT-AP: Objectives

- The GeoDCAT-AP specification does not replace the INSPIRE Metadata Regulation nor the INSPIRE Metadata Technical Guidelines based on ISO 19115:2003 and ISO 19119
- Its purpose is to give owners of geospatial metadata the possibility to achieve more by providing an additional RDF syntax binding
- Its basic use case is to make spatial datasets, data series, and services searchable on general data portals, thereby making geospatial information better searchable across borders and sectors
GeoDCAT-AP: Current status

• Final specification (GeoDCAT-AP 1.0) released in December 2015, along with its reference implementation
• Third-party implementations, including CSW-based ones, are already available
• Some of the solutions defined in GeoDCAT-AP for modelling data quality and spatial information have been documented in the W3C Data Quality vocabulary, and in the W3C/OGC Spatial Data on the Web Best Practices
• Discussions are under-way in OGC about the possibility of adopting GeoDCAT-AP as a community standard or a best practice
Two profiles (core & extended) addressing different scenarios:

- **Core**: It includes only the INSPIRE / core ISO 19115 metadata elements supported in DCAT-AP
- **Extended**: It defines mappings for all the INSPIRE / "core" ISO 19115 metadata elements (superse of the core profile)
The GeoDCAT-AP API

- Shows how GeoDCAT-AP can be supported without changing the existing infrastructure
- Shows how to enable traditional HTTP functionalities in geospatial catalogue services (CSWs), as content negotiation
- Shows how the existing catalogue infrastructure can be used to publish metadata in a way that increases their visibility on the Web, by following standards as HTML+RDFa and Search Engine Optimisation (SEO) techniques

Output Schema: DCAT-AP


Output format: RDF/XML

Usage notes

Copy & paste the URL of a file or of a CSW request returning ISO 19139 records.

Supported CSW request types: GetRecords, GetRecordById.

Supported CSW output schema: http://www.iso19139.org/2005/gmd

NB: The current version of the API supports only CSW calls using the GET HTTP method.

A description of the GeoDCAT-AP API is available on the API's Stash repository
Thanks!

Any questions?
You can also contact me at:

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References

• GeoDCAT-AP 1.0.1 specification
  https://joinup.ec.europa.eu/node/154143/

• GeoDCAT-AP implementations
  https://joinup.ec.europa.eu/node/144843

For more details:

• GeoDCAT-AP: Use cases and open issues (2016)
  https://www.w3.org/2016/11/sdsvoc/SDSVoc16_paper_25

• GeoDCAT-AP: Representing geographic metadata by using the “DCAT application profile for data portals in Europe” (2017)