SEMANTIC INTEROPERABILITY IN EESSI

in

EESSI Information Architecture Expert Group

IAEG meeting 2025-11-05
(torsten.kirschner@nav.no)

How to get lured into semantic interoperability stuff

In EESSI, we've had two member states that used different country codes than their ISO 3166-1 codes.

The United Kingdom uses UK in EESSI, but GB otherwise.

Greece uses EL in EESSI, but GR otherwise.

What?

The EU's publication office makes lots of information available. Look!

United Kingdom

Greece

So what is this ISG ?

Do I have to browse this information manually?

No. They have a query endpoint:
https://publications.europa.eu/webapi/rdf/sparql

Try it out!

I don't know RDF or SPARQL.

But after a bit of reading, and lots of AI, I arrived at this query to aid our national implementation with mapping between EESSI, i.e., ISC codes to ISO 3166-1 α-1 and α-3 codes.

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
PREFIX euvoc: <http://publications.europa.eu/ontology/euvoc#>

SELECT DISTINCT
    ?isg_cou_value
    ?iso_3166_1_alpha_2_value    ?country_label_en    ?country_ur
    # Query the EU countries dataset
    GRAPH <http://publications.europa.eu/resource/authority/count
        ?country_uri a skos:Concept .
        ?country_uri euvoc:context <http://publications.europa.eu

        # Get English label
        ?country_uri skos:prefLabel ?country_label_en .
        FILTER (lang(?country_label_en) = "en")
```

And using RDF4J, it is possible to use SPARQL or just Java to query.

(DEMO)

Do you think this could be useful to explore further?

Suspicions: SDG uses this stuff for the mapping of domains and possibly structured documents for evidences to be exchanged.

Thank You!