INSPIRE in practice: Experiences with INSPIRE data and services

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What's INSPIRE?

European Commission Directive & regulations

19135

19136 GeoTIFF

Data

19142 OGC WPS

Web Services

19143 W3C Atom

OGC CSW

Technical Guidance

19110

19109 OGC Simple Geometry

19111 19112

19113 19115

19118 19139

OGC WPS

19131 19103
What’s this presentation?

OGC / OS Plugfest (UKIAP)
Dec 2013/March 2014

Hackday, February 2014

23 companies; 14 ‘desktop’ software; 6 server software
4 ISO 19128 servers; 3+ ISO 19136 datasets; 4 ISO 19142 servers
Summary

• ISO 19128 Web Mapping Service
  • Well supported by server software
  • *In spite of this being a 2005 ISO standard, some client software still only supports OGC’s 2001 WMS 1.1*
  • Also, service operators often prefer OGC’s tiled spec: WMTS

• ISO 19136 Geography Markup Language
  • A simple subset is well supported, roughly as defined by OGC Simple Features Profile
  • *In spite of this being a 2007 ISO standard, some software still only supports (a subset of) OGC’s 2002 GML 2.1*

• ISO 19142 Web Feature Service
  • Reasonable support server side, but rarely implemented
  • BECAUSE only one client even claimed to support it
ISO 19128 WMS

• Client software from
  Autodesk, CADCorp, Intergraph, Envitia, Esri, OSGeo, Pyxis, QGIS
  Worked well with server software from
  Caris, Esri, Intergraph, MapServer, OSGeo

• BUT
  • Some clients prefer OGC WMS 1.1
  • Many server operators prefer OGC WMTS
    (due to a more predictable server load?)
ISO 19136 GML

- Desktop & server software from Astun, Autodesk, CADCorp, Intergraph, Envitia, Esri, MapBox, MapMaker, OSGeo, Pyxis, QGIS, Safe Software, Snowflake
  Worked well with **simple** data created by software from Safe Software & Snowflake

- Most software can’t handle multiplicity > 1
- *Therefore preference for OGC Simple Features level 0*

- Some software can’t handle coordinates in 3D
- Most software hardly uses the XSD
- No software used the GML ‘wrapper’ of grid data
ISO 19142 WFS

- Client software from Esri and QGIS
  
  Worked with *simple data* returned by server software from Caris, OSGeo, Snowflake
OGC UK Interoperability Assessment Plugfest

- 9th December 2013 and 3rd March 2014
- Five scenarios: GML, WMS, WMTS, Cascading WMS, WFS
- Two sprints, with time to fix issues in between
- Eleven companies participated, using nine GIS clients: Arc, Astun, CadCorp, Helyx, Magellium, Intergraph, QGIS, Snowflake, Safe,
- We looked briefly at OGC Catalogue Services for the Web, and Web Coverage Services too
- OGC Engineering report & OS ‘Best Practices paper’ to come
  (This presentation is from a draft & my own notes on the day)
OS Insight Hackday

- Six recent / ‘under development’ products, including three that are in ISO 19136 GML
- Twelve organisations, seven pieces of software
  - *Five of which could open the ISO GML*
- OS Terrain® vector: easy
- OS Terrain® grid: no one used the GML; loaded ASCII grid
- OS MasterMap® Networks - Water layer: easy
  - Simplified INSPIRE Hydrography network specification
  - *except some software can’t handle 3D coordinates*
- OS VectorMap® Local 2.0: easy
- (we also looked at a couple of CSV products & a GeoTIFF)
- OS Terrain 50 and OS VectorMap District are open data
Links for further information

OGL: Open Government Licence

OGC UK Interoperability Assessment Plugfest:  
http://www.opengeospatial.org/OSplugfest

http://www.ordnancesurvey.co.uk/blog/2013/12/sprint-1-of-the-uk-interoperability-assessment-plugfest/

http://www.snowflakesoftware.com/2013/12/plugfest/

Ordnance Survey’s OS Insight programme:  

OS Open Data:  
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Linked data / map:
http://data.ordnancesurvey.co.uk/id/postcodeunit/SO160AS