Deployment for the French Groundwater Information Network*

1°/ French Groundwater Information Network (GIN) data according to GWM2

Context

• 1 real world feature which “point of truth” is in one national database according to national French specifications

• Exposed according to different exchange scenarios

• Rationale: assign one URI per feature & return the representation that suits the tool (according to interoperability standards)

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1°/ French GIN data according to GWM2
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1°/ French GIN data according to GWM2
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1°/ French Aquifers according to GWM2

French Sandre

GroundWaterML2.0

INSPIRE Hydrogeology

Mapped

Aligned in GWML2 spec validated for INSPIRE
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2°/ « Geo data » Use Case

- **Recipe applied to the data graph**
  - 100% guaranteed on OGC & INSPIRE specs and API back in 2018
    - Xsd compliant GML
    - Served by WFS and SOS
  - And a touch of Linked Data to link feature instances

- **Resources**
  - [https://plugins.qgis.org/plugins/gml_application_schema_toolbox/](https://plugins.qgis.org/plugins/gml_application_schema_toolbox/)

- **Target**
  - Having this rationale ported to new OGC APIs and the ‘JSON’ family for payload
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2°/ « Geo data » Use Case : demo in desktop GIS QGIS with the ‘QGIS GML Application Schema Toolbox’

• Video

https://github.com/BRGM/gml_application_schema_toolbox/tree/master/docs/presentations/2018_INSPIRE_conference
Deployment for the French Groundwater Information Network

3°/ Web of Data Use Case

• Recipe applied to the data graph
  • 100% based on Linked Data & Semantic Web best practices
    • Semantic based on OGC models but turned into lightweight ontologies
  • And a hint of OGC services to expose data
    • Mixture of static JSON-LD files and OGC WFS & API features (payload in JSON-LD)

• Resources
  • https://opendeveloperspatial.github.io/ELFIE/demo/surface_groundwater_network_interaction
  • https://opendeveloperspatial.github.io/ELFIE/demo/groundwater_monitoring
  • https://github.com/opendeveloperspatial/GeoSciML
  • https://docs.geoserver.org/latest/en/user/community/features-templating/index.html

• Target : from ProofOfConcept to production
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3°/ Web of Data Use Case: demo in a Linked Data aware web client

• Videos

  • https://opengeospatial.github.io/ELFIE/demo/surface_groundwater_network_interaction_video_1.mp4

  • https://opengeospatial.github.io/ELFIE/demo/surface_groundwater_network_interaction_video_2.mp4
EU Research Infrastructure EPOS

Geological Information and Modeling community reuse of GWML2 GW_GeologyLogCoverage for Borehole Logs

• Recipe
  • Being deployed by each partner: geological survey, GFZ and UU-SE on (International Continental Scientific Drilling Program – ICDP – & International Ocean Discovery Program – IODP – boreholes)

• Resources
  • Instances example and GeoServer configuration
    https://gitlab.brgm.fr/brgm/epos/epos-tcs-gim

• Target
  • All partners exposing their logs accordingly
  • Generic clients set up on top
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Describing log by reference to pre-existing binary file formats

Borehole VS Well discussion that lead to OGC 19-075r1 ‘Borehole Interoperability Experiment’
Thank you

s.grellet@brgm.fr
Thank you!