

Draft Minutes for the 5th OneGeology (Global) Technical Working Group Meeting

September 25th 2009, 1-4.30 p.m.

At The offices of the Geological Survey of Canada, in Québec hosted by GeoSciML consortium member Eric Boisvert.

490, rue de la Couronne, Québec, Québec, G1K 9A9 Commission géologique du Canada (Québec) / Geological Survey of Canada (Québec)

A welcome statement from the OneGeology Secretary :

« Tim and Jean-Jacques,

May I ask you, as joint Chairs, to pass on my thanks and the thanks of the whole OneGeology community to the members of the TWG meeting in Quebec, for the tremendous progress they have made in taking OneGeology forward and the effort they have contributed in doing that.

Without your work OneGeology would remain a concept.

Thank you once again. I wish you a successful meeting.

Ian Jackson»

Apologies :

John Broome of OneGeology OMG,

Leonardo Araujo (CPRM) – tried to join meeting by web telephone but flight delayed at last minute preventing this, Cristina Antunes(Unidade de Informação Geocientífica, Portugal)

Attendees :

- Eric Boisvert – GSC
- Joel Bandibas - GSJ
- Lars Stolen - SGU
- John Laxton – BGS
- Tim Duffy – BGS (Co-chair)
- Oliver Raymond - GA

- Dale Percival - GA
- Bruce Simons - GSV
- Alistair Ritchie - GSV
- Jean-Jacques Serrano – BRGM (Co-Chair)
- Dominique Janjou- BRGM
- Agnes Tellez-Arenas - BRGM
- Jouni Vuollo – GTK
- Carlo Cipolloni – ISPRA (Geological Survey Italy)
- Steve Richard - AGS
- Fernando Pérez Cerdán - IGME
- Petr Coupek - CzechGS
- Satish Sankaran – ESRI USA
-  Carlos Gabriel Asato - SEGEMAR

1 p.m : (start : Gabriel is on-line via Skype)

TWG is a new group, now formally defined, as a result of the last OMG meeting in Buenos Aires, the TOR of the TWG have been defined. 2 co-chairs (Tim – BGS - and Jean-Jacques - BRGM) until March 2010, thereafter if the organisations responsible for web services support and secretariat (currently BGS) and Portal/registry (currently BRGM) change then these co-chairs will be changed to be staff from those new organisations (see Operational management group approved Terms of Reference for the TWG at end of this document).

1). Minutes of the 4th TWG meeting GEUS Copenhagen 21st January 2009 2-5p.m:

The minutes were approved without change.

2). Matters arising from 4th meeting:

ACTION POINT 1: It was agreed that the next WMS cookbook version from BGS would recommend that new service providers test the visibility of their new WMS in more than one common client such as the 1g viewer and Google

Earth (and perhaps Dapple www.geosoft.com) but as long as the service worked in the 1g-Viewer it would be accepted as conformant. Carlo to report on ESRI WMS in KML situation for that new cookbook version. Tim is to provide Agnes with working (in Google Earth/Google Maps and other KML clients like NASA Worldwind/Dapple) KML 2.2 examples that do their best displaying Onegeology existing services.

Cookbook delayed waiting MapServer to support WMS 1.3 (ISO standard WMS), which 1Geology-Europe & INSPIRE require now, and all will have to support WMS 1.3 eventually anyway. What about SLD symbolisation support? For WMS 1.3 SLD is in another standards document – such support for OneGeology-Global will come after OneGeology-Europe has tested and refined appropriate use and support for this style of symbolisation; for INSPIRE if no ISO standard available, an OGC standard can be used. MapServer 5.6 due end of October has fixed the bug in WMS 1.3 (mis-interpretation of the standard) and the next cookbook will be based on this version 5.6.

KML and ESRI (WMS connector on top of ArcIMS) products : the problem has been fixed by Carlo – and there is no problem for ArcGIS server with this.

New ACTION POINT 1: Secretariat to release new OneGeology WMS cookbook once MapServer 5.6 released in production version.

ACTION POINT 2: BRGM to provide the IGG Registry/client viewer help with a PDF File (with the June version of the portal).

Help file : achieved

ACTION POINT 3: RT has now promised the first draft 1 page A4 involvement summary for Directors very soon.

Action discontinued : information provided now on website considered good enough for directors.

ACTION POINT 4: The following volunteered to setup a GeoSciML v2.0 WFS (will be restricted impact on service server usable from the “getFeatureInfo” button in the IG Viewer) before August 2009 :

BGS, BRGM, SGU, CAN, ITA, GA, AZ (Steve), USGS ? (Action for Steve to ask Dave Soller), CGS + Slovakia (work together on GeoSciML), Slovenia.

WFS technologies used so far to produce conformant GeoSciML 2.0 include the GIN mediator on top on Mapserver, mediator on top of ArcIMS, and Deegree.

Diagram about success criteria presented:

58 WMS and 8 WFS were available now with an expected 12 to 15 total WFS within next two months including promised contributions from Slovenia, Arizona, Czech Rep, and Japan.

“Geological Surveys” instead of “Countries” in the reporting line was requested in recognition of regional, state, provincial surveys who are increasingly contributing to the portal with their own services. We were informed that this would occur in the next reporting round.

New ACTION POINT 2: at least Slovenia, Arizona, Czech (doing Slovak by agreement also) and Japan to put up WFS services based on the WFS cookbook and their existing WMS expressed datasets.

ACTION POINT 5: Catalogue : BRGM kindly agreed to update the current registry and portal to better show available WFS (currently not visible as they are hidden behind the getfeatureinfo), and a simple search on layer title (the human readable ‘dataset topic’) to deal with the problem of more and more layers available. To add new buttons “Catalogue of layers” – “Search on layertitle” (=> June 2009 with the new release of the portal).

All achieved.

ACTION POINT 6: BGS to email all current service providers for software used and buddying information.

To register people send email to BGS at onegeologyhelp@bgs.ac.uk. The buddying process has been formalized and made quick and convenient by providing two web forms to be filled in by those with data and wishing to have a buddy to serve it – see http://www.onegeology.org/technical_progress/data_coordination.cfm and http://www.onegeology.org/technical_progress/buddy_coordination.cfm.

ACTION POINT 7: BGS to contact Chile and Argentina to offer support with WMS services.

Both Chile and Argentina now have operational services.

ACTION POINT 8:

The following direct personal contacts were volunteered (no letter therefore to be written by BGS secretariat)

Faroe Islands => by Jorgen of GEUS

Bosnia-Herzegovina, Croatia and Albania (correction from minutes that said Armenia) => by Slovenia (Jasna).

Work is progressing on Faroe Islands.

Albania is up, hosted by Slovenia

Croatia work in progress.

New ACTION POINT 3: Slovenia (Jasna) to continue to try to progress Croatia and Bosnia-Herzegovina.

3). Action required to implement new Terms Of Reference

- a). New co-chairs Tim Duffy (BGS) and Jean-Jacques Serrano (BRGM) have been appointed by OMG**
- b) Create a formal membership of TWG with formal Geological Survey nominations to max 30 persons – so far only Dave Soller (USA), Lars-Kristian Stölen (SGU) and Alistair Ritchie (GSV) have been formally nominated .**
Previously 63 persons were on the informal TWG mailing list.

John commented people attending this meeting have clearly been “informally” nominated by their organisations.
For all : To send a formal email to BGS (please use onegeology@bgs.ac.uk) to register to the TWG.

New ACTION POINT 4: All potential formal members of the TWG to arrange for their nominations to be sent to onegeology@bgs.ac.uk

- c) Offer of new web collaboration space (using teamspace WIKI same interface as OneGeology-Europe) for use by that membership – nominees can now be allocated userid's and passwords by the secretariat- TD to demonstrate access:**

Quick wiki demo (TeamSpace) members of IGE can read IGG-TWG files but no editing is permitted
IGG – TWG members to use this tool for discussion – the likely first real use of this tool is to invite comment on the new draft WMS cookbook.

4). New metadata catalogue for OneGeology Registry:

Issues for advice from TWG:

- a). Check of the metadata displayed in the current version of the Onegeology client (properties of the active layers, and catalog of registered services). Do we need other information?**

IGG portal demo – Registry will be replaced by Geonetwork, with more possibilities for metadata, and searches

Will register services, and datasets metadata displayed : more elements than now ?

New ACTION POINT 5 : getcapabilities cookbook convention will be expanded to populating abstract of the layer (= dataset for our community).

b). Search engine in the catalog of registered services: which criteria?

Other search criteria? Everything in the Geonetwork (CSW 2.0.2 ISO AP compliant) based catalogue will be captured from the getcapabilities responses of the OneGeology WMS'.

It is expected to use "any text" searching in the records.

Extension of ESRI geoportal supports CSW 2.0.2 ISO AP. IGG has to use Open Source Software (many reasons: virtualization – scalability, ...) Look to see how ESRI could harvest the IGG registry.

November 16th 2009 to register the IGG register into the

GEO/GEOSS (poster to explain IGG action for early 2010)

We will test NSF GIN catalog harvesting (other catalogs IGG, IGE, AuScope)

ArcGIS CSW 2.0.2 ISO AP client currently works only with ESRI but not with the other ones.

For IGG profile several capabilities elements cannot be harvested by ESRI currently.

c). We could use at least one predefined list of keywords to classify the services and/or the datasets. Example: Bedrock, Superficial geology, Geologic units, Age, Lithology, Faults, Contact, ... - Decide which list to define and their values.

To use keywords – IGE -WP4 Draft keywords list provided.

Search in the abstract could provide 90 % of the need.

new ACTION POINT 6 : To collate the list of current keywords from the existing WMS (BRGM), then to provide a

constrained list of keywords possibly to include the IGE-WP4 recommendations when they appear.

The IGG profile comes only from capabilities elements.

Q: do we need to formally define a IGG profile for WMS ? In cookbook we guide service providers considerably.

Jean-Jacques to send the formal DGIWG profile for WMS to Tim as an exemplar template for such a definition.

5). Contents of new WMS cookbook for WMS 1.3 compliance and enhanced ESRI WMS software advice

WMS 1.4 due middle of next year – but will not be an ISO standard immediately (Satish is Chair of the OGC WMS RWG). IGG can push requests for WMS standard's improvement to the WG through Satish.

Currently cookbook for MapServer. Try to support ESRI softwares used in our community so there will be a full chapter on ArcGIS Server support in the next WMS cookbook. But IGG has to limit the number of software to support (1 commercial, 1 open source)

New functionality from the very latest ESRI ArcIMS and ArcGIS 9.3.1: now conforms to IGG “profile” to manage all capabilities elements

GetFeatureInfo result validation : to clarify the issue offline(Satish and Tim)

Min and Max Scales in WMS 1.3 ESRI implementation– appear to be wrong way around in XML: to be checked by Satish.

WMS 1.3 Corrigendum to explain some of the 'mis-interpretation' issues (WMS 1.3 specification well interpreted by ESRI, but not originally by MapServer).

Layer names (number for ESRI): will be fixed in 9.4 (July 2010) confirms Satish.

SLD_Body issue (from IGE, raised here for future when IGG implements appropriate IGE tested technologies) : will be fixed in 9.4 says Satish.

Dynamic legend creation : get Legend Graphics. Many providers use a static legend response, also supported in 9.4 although less of an issue now as WMS 1.3 encourages use of static legends not getlegendgraphics.

*GetFeatureInfo return attributes (no need for geometry)
More people use ArcIMS than ArcGIS Server (impression that ArcIMS will be depreciated ?)*

Satish (ESRI product manager): ESRI will continue to support and solve main bugs for ArcIMS but if at all possible will ask users kindly to move to ArcGIS Server (99% of ESRI OGC/ISO standards support development effort)

Alistair: issue with service name convention – left hand side – no control on it (Tim to check with Marcus/James)

Q: GeoServer to move to WMS 1.3 support? There was no current sign of action on this other than the GeoServer web page ‘Roadmap ideas’ states “This is required for INSPIRE, and we imagine that someone will fund GeoServer to upgrade to it soon. “ As IGG is currently unfunded except by Geological Survey contributions in kind it is not possible for IGG to offer this funding (estimate \$20,000) this year but perhaps this needs looking into again next year if nobody else (surprisingly) is going to do this.

6). Contents of a new WFS cookbook including GeoServer v2 – should it include Deegree and GIN?

3 chapters are currently thought of for the new cookbook :

Chap 1. bbox queryable Gsml – works with simple WFS provided by MapServer with GIN mediator (a few properties), no use of urn currently. Gsml will eventually use urn with urn resolver, with 27 CGI vocabularies.

Chap 2. Deegree with GIN mediator (XSLT)

Chap 3. GeoServer 2.0 with complex features (to be released within weeks)

Should we confused people providing solutions with Deegree and geoserver functionalities ? for clarity not to include Deegree solution in the cookbook? – but in the same time GeoServer is not as stable as expected, v2.0 to be released next

month still has major bugs – in application schema (returning feature type schema) and do not yet handle CRS nor units of measure properly.

Decision taken: until GeoServer can produce valid GeoSciML 2.0 including valid ‘units of measure’ there will be no release of the WFS cookbook including a GeoServer chapter. Once full valid GeoSciML 2.1 can be produced by Geoserver it will be included in the following WFS cookbook version.

Deegree with GIN in the current cookbook has been used only by Brazil so far.

Need to define which WFS query functionality we want to support for IGG, which use case? It was concluded that simple bbox download was the only clear use case required for the next year (later property queries would be based on the imminent ISO 19143 Filter Encoding (Query) standard v2 for WFS v2), and MapServer with Gin can provide this.

Report to OMG: for the next year just supporting the simple bbox – gsml v3, if ok, in the next cookbook we can delete the deegree chapter (Marcus suggestion: have a Deegree page on the portal for more advanced people – in fact it has been requested that ALL IGG and GeoSciML cookbooks have web page versions from now on with both versions being identical in content at all times). Steve has implemented XSLT Deegree, waiting for GeoServer 2.0

GIN and Deegree XSLT are the same kind of solution, the only difference is that GIN can use multiple servers which is not a IGG requirement.

There was no current commitment to write documentation for Deegree XSLT (resourcing issue). The expertise needed is on XSLT and Deegree.

Decision made: Request for a Deegree v2.3 chapter in the next WFS cookbook to replace the Deegree with GIN chapter – volunteer to write this chapter (to take Deegree XSLT and write a chapter for people to have a bbox query only) – Steve kindly volunteered with help from Alistair.

New ACTION POINT 7: Steve Richard to offer a chapter 2 for next version of WFS cookbook: 'How to serve GeoSciML v2.x as a bbox queryable WFS using Deegree v2.3 with xslt configuration'

7). OMG requirement for TWG to discuss and start to arrange OneGeology Technology (including possibly web server management and OneGeology Level 1 WMS and Level 2 WFS services and GeoSciML) , training courses for South American Geological Surveys in SA (probably Bolivia) possibly hosted by AECI/IGME – Fernando (IGME) , Leonardo (CPRM) and Gabriel (SEGEMAR) input here: Gabriel provided a paper on possible GSML training course contents.

Training is currently hosted by AECI but some current conditions (number of attendees – 20 at least, 3 by country so 8 or 9 countries, teachers must be Spanish, expenses for accommodations will be found by the Spanish agency. Within two weeks Fernando will have a meeting with the responsible organisation (AECI) , next year program will be open to international agencies, with international speakers – English speaking trainers accepted ? accepted by Gabriel. Training program reviewed with the 4 levels – but only approximately 6 persons from South America could attend currently because most people are not skilled in web services and XML, to provide a knowledge standard for all countries and gsml. So basic (level 0 in Gabriel's document) IT training including XML would have to be given first before GeoSciML focussed training using GeoSciML basically English speaking experts could be brought in.

One week with 25 people basic track then advanced track GeoSciML/OneGeology?

This would require changes in the AECI rules and by asking IGG people to give the advanced courses numbers attending could be boosted to required AECI levels if they were to allow attendees from other parts of the world i.e. AECI Bolivia would

be asked to host a world-wide GeoSciML course (preferably in later 2010 when GeoSciML v3 is available).

Fernando will check these options with AECI soon.

Level 3 topics to be checked by IWG based on previous courses given.

New ACTION POINT 8: Fernando to discuss course options with AECI and report back.

8). Review of potential ESRI software support for complex feature WFS' such as those based on GeoSciML

ESRI has announced this week that it intends to be involved in the next GeoSciML Testbed 4 on the server side to produce a GeoSciML valid WFS server from core ESRI software- Satish read GeoSciML documents, to check this.

Data should be in a Geodatabase first (IGG to provide- immediate offers of providing exemplar data to serve as a WFS from ESRI were: GA Ollie, GSV Alistair, ISPRA Carlo, USGS Steve). ESRI can support only for the testbed or/and push evolution in ESRI software.

*Steve : Need for a client to consume W*S*

IGG to give a list to Steve of what functionality an ESRI client consuming WFS might be – learning from the needs of the next Testbed 4. take the decision (and data source – Geodatabase – GA Ollie, GSV Alistair, ISPRA Carlo, USGS Steve - and kind of Gsml expected)

New ACTION POINT 9: GA Ollie, GSV Alistair, ISPRA Carlo, USGS Steve to provide Satish with example datasets to serve from ESRI geodatabase as GeoSciML WFS.

9). Any Other Business

None applicable

10). Date and Venue of next meeting

There was discussion as to whether the next meeting could be held in South-East Asia or on the African continent to continue widening the opportunity for OneGeology contributors spread across the planet to attend and contribute. So far we have managed these meetings (all travel unfunded, all just half a day and always immediately adjacent to other meetings to which significant numbers of TWG members are attending through other funding anyway) in Netherlands, France, Norway, Denmark and Canada. There is an AEGOS (<http://www.aegos-project.org/>) - a long term SDI project for Geology in Africa i.e. 1GG is exemplar for it, and many African Geological Surveys are part of the AEGOS project) meeting due in Autumn 2010 and the Co-chairs were asked to investigate this rare opportunity to hold the meeting adjacent to an AEGOS meeting in Africa. We are pleased to report that this has been confirmed by the AEGOS Operational Management Meeting in November and so the next 1GG TWG will be held for half a day immediately after the two day AEGOS WP1/WP2 meeting in Accra, Ghana, probably hosted by the Ghana Geological Survey in the week beginning 4th October 2010 – details to follow next year as they emerge – please put this week in your diary!

OneGeology Technical Working Group Terms of Reference (approved by OMG 14/08/09)

The OneGeology Technical Working Group is one of the two task groups set up following the provisions of the Brighton Accord.

1. The primary goal of the OneGeology Technical Working Group will be to test, agree, document and support the implementation of the technical standards that are required to deliver the OneGeology vision laid out in the Brighton Accord.
2. The OneGeology Technical Working Group shall consist of persons nominated by Geological Survey organisations and is expected to consist of no more than 30 members from around the world. The OneGeology Technical Working Group will be co-chaired by nominated representatives of the organisation that is providing the secretariat and technical support services to data contributors to OneGeology and of the organisation that is hosting the OneGeology Registry and Portal. These Co-chairs will be assisted by the Secretariat and the Operational Management Group, as well as additional persons recruited to carry out specific action items or responsibilities, or form related international organisations.
3. The responsibilities of the OneGeology Technical Working Group will include: monitor and liaise with international organisations responsible for publishing standards that are relevant to the technical implementation of the OneGeology vision; test, agree and document specific OneGeology profiles of such standards that are developed by the Technical Working Group and contribute to the advice and support given to the non-technical general contributors to OneGeology that are not members of this Working Group.
4. The OneGeology Operational Management Group will provide direction (use cases, validation of specifications) to the OneGeology Technical Working Group and receive

a report from the Group following each of its meetings.

5. The OneGeology Technical Working Group will hold meetings at least annually.

6. The OneGeology Technical Working Group will report every 6 months to the Steering Group.

Actions from 1GG-TWG meeting 25/09/2009:

ACTION POINT 1: Secretariat to release new OneGeology WMS cookbook once MapServer 5.6 released in production version.

ACTION POINT 2: at least Slovenia, Arizona, Czech (doing Slovak by agreement also) and Japan to put up WFS services based on the WFS cookbook and their existing WMS expressed datasets.

ACTION POINT 3: Slovenia (Jasna) to continue to try to progress Croatia and Bosnia-Herzegovina

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ACTION POINT 5 : getcapabilities cookbook convention will be expanded to populating abstract of the layer (= dataset for our community).

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ACTION POINT 8: Fernando to discuss course options with AECI and report back.

***ACTION POINT 9: GA Ollie, GSV Alistair, ISPRA Carlo,
USGS Steve to provide Satish with example datasets to serve
from ESRI geodatabase as GeoSciML WFS.***