

CGI 2009



ANNUAL REPORT TO THE INTERNATIONAL UNION OF GEOLOGICAL SCIENCES FOR 2009

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CGI and Interoperability

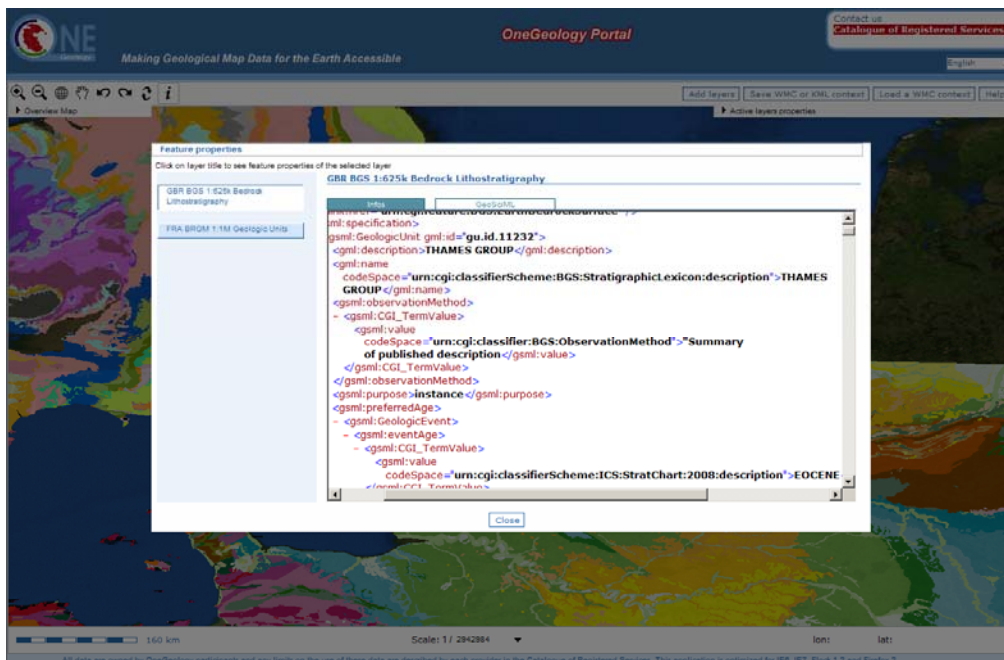


The Interoperability Working Group (IWG) of the CGI has continued to focus on the development and implementation of GeoSciML as an interchange format for geoscience data. GeoSciML v2 was released at the AGU Fall Meeting in San Francisco in December 2008. All materials associated with this release were made available for download from the CGI website – the UML model; the XML schema; examples of XML encoding using GeoSciML; full documentation of the model; and cookbooks to assist with mapping data to GeoSciML and the setting up of web services using GeoSciML.

Following the release of GeoSciML v2 work concentrated on its implementation, in particular through the OneGeology-Global and OneGeology-Europe initiatives, the Geoscience Information Network in the USA, and AuScope in Australia. The OneGeology-Europe project has as one of its specific objectives the acceleration of the development and deployment of GeoSciML which will be achieved through the use of GeoSciML to deliver a 1:1 million scale harmonised geological map of Europe. GeoSciML has been submitted to the Infrastructure for Spatial Information in Europe (INSPIRE) initiative as a candidate data specification for the geology theme, and it is hoped that it will form a significant component of the final INSPIRE geology data specification.

GeoSciML has also been used in the development of EarthResourceML (for minerals) in Australia and GroundWaterML in Canada, and close links have been maintained with these external initiatives. With European uptake on EarthResourceML, it is expected that the IWG will take over governance of this standard from the Australian geological surveys.

A GeoSciML workshop was held in Copenhagen in January 2009 at which GeoSciML was explained in detail to representatives of the Nordic geological surveys, and at which the application of GeoSciML to the specific problems of Nordic geology was discussed. This workshop was a success and could form the basis of similar workshops in other regions if a source of funding were available. Other dissemination activities included the presentation of papers on GeoSciML at the EGU General Assembly in Vienna in April.



GeoSciML describing a feature selected in the OneGeology-Global portal



Experience with the application of GeoSciML v2, along with known outstanding issues, formed the basis for the development of use cases for GeoSciML v3. These were discussed at a development meeting of the IWG hosted by the Geological Survey of Canada (GSC) in Quebec City in September 2009. This meeting made significant progress in developing the data model for GeoSciML v3, to include an enhanced handling of boreholes and specimens and a revised encoding of vocabularies using the Simple Knowledge Organisation System (SKOS) standard.

GeoSciML primarily addresses schematic interoperability, but to enable semantic interoperability it is necessary to use shared concepts. The IWG has set up a Concept Definitions task group to draw up vocabularies of agreed concepts, and draft vocabularies for most properties requiring Controlled Concept definitions in the GeoSciML model have been made available for comment. Particular emphasis has been placed on developing the CGI Simple Lithology vocabulary which has been chosen to be the basis for lithology descriptions in OneGeology-Europe. The requirements of OneGeology-Europe have, in turn, been used to extend and refine the CGI Simple Lithology vocabulary.

Multilingual Thesaurus of Geosciences

The 9th Meeting of the Multi-lingual Thesaurus of Geosciences (CGI-MTG) took place in St Petersburg in Russia in July, 2009, where for the first time a link between the CGI Interoperability Working Group (CGI-IWG) and the CGI-MTG was created. A number of vocabulary issues common to both groups were identified and discussed. It is planned for both groups to work together more closely, starting with an invitation only Science Language Workshop in 2010.

Much of the MTG work to date is based on the results of the Multhes work of COGEOINFO published in 1995. The lack of a hierarchy was the most prominent disadvantage of the Multhes and the biggest obstacle for a systematic update. The MTG WG developed new categories as a base for a systematic hierarchy and prepared guidelines for checking every term's specific requirements during the merging of the data.

Terms of the first and second hierarchical level were loaded into the data base as a basic set. While this basic set of terms is nearly complete for English and German it is partially translated into other languages (French, Spanish, Italian, Russian, Finnish: 90%) or translation has just begun (Polish, Swedish: 10%). Any translation has to be done by language managers. Currently the Working Group Members are language managers as well.

Progress of the MTG depends on the ability of language managers to use thesaurus management tools. MTG WG members know most of the technical terms and guidelines for Thesaurus management. This will not be the case with new language managers. For that reason the MTG WG must work out guidelines for the Management tool as well as designing training courses for newly appointed language managers.

Any country that wants to add its language to the MTG has to appoint a language manager. Language managers must be appointed by competent national institutions, which in most cases will be the national Geological Survey or a comparable agency. CGI has yet to determine a procedure for appointments.

The Multilingual Thesaurus of Geosciences is only one tool for international trans-cultural, and trans-lingual co-operation. It has to be integrated into a global strategy and harmonised with other projects.



CODATA



CGI continues to represent the IUGS at CODATA though delegate John Broome. The evolution and acceptance of the GeoSciML standards and its demonstration through the OneGeology initiative has generated considerable interest in the CODATA community. Of particular interest was the extensible nature of the standard and possible opportunities to use it for other data sets. For example, usage of the GroundwaterML data exchange standard established by the groundwater community on the GeoSciML foundation continues to grow. In addition, the IUGG is proceeding with the establishment of a “data commission” similar to the CGI.

At the 29th ICSU General Assembly, the Executive Board, decided to establish an ad hoc Strategic Coordinating Committee for Information and Data (SCCID). This new Committee will provide ICSU with broad expertise and advice on strategic direction in the area of scientific data and information management and dissemination policy and advice on the data needs and possible solutions for existing and new ICSU programs and other international initiatives. In particular, SCCID will advise ICSU on future directions from CODATA and the World Data System (WDS). CGI member John Broome was invited to become a member of the new committee. At the first SCCID meeting in October 2009, a review of current international best practice in research data management resulted in the IUGS CGI approach being identified as best practice and targeted for further study and broader adoption.

CGI in Europe



The INSPIRE Directive is now entering in the implementation phase. In 2009 European experts have finalized the specifications of Annex I themes, which has clearly highlighted the importance of the communities’ involvement in the process, based on representative use cases. Data specification of the geological theme will start early 2010. The geological community will be strongly involved, through experts representing EuroGeoSurveys membership, and through the presence of geoscientists in the JRC staff (Joint Research Center of the Commission, in charge of INSPIRE technical coordination). GeoSciML is confirmed as the candidate specification for supporting the geological theme.

At the same time, the OneGeology-Europe project, launched in September 2008, is regarded by the Commission, as a key testbed and demonstrator of the INSPIRE implementation. The project has identified a specific profile of GeoSciML as the project specification, ensuring a full consistency between the CGI specification and the European profile. In return, the project has made proposals to the CGI for updating the model, those proposals have been adopted. The project has also developed an important effort for the definition of vocabularies, including the translation of the vocabularies of the identified concepts in the OneGeology-Europe languages. This has also been conducted in coordination with the CGI vocabulary working group. A first implementation of web feature services based on the GeoSciML profile has been made by 10 participating countries in October 2009. The OneGeology-Europe project will finish in September 2010.



A workshop of mineral resource scientists from France, Sweden and Finland was held in Paris in September 2009 to assess the EarthResourceML extension of GeoSciML. The workshop determined that EarthResourceML should be used for the exchange language for the African-European Georesources Observation System (AEGOS) and the European Pro-Mine initiative. EarthResourceML has been proposed as a potential INSPIRE candidate for the mineral resources theme.

CGI in North America

The Geological Survey of Canada (GSC), the US Geological Survey (USGS), and the US National Science Foundation's new project "US Geoinformatics Network" (GIN) strongly endorse the CGI's mission, and invest significant resources in CGI Working Groups.

Through the CGI Interoperability Working Group, North American scientists continued to help refine the physical design, infrastructure requirements, and the various science terminology lists and definitions for the emerging standard for geoscience data exchange, GeoSciML. The GSC, USGS, and GIN anticipate this standard will greatly improve management and interoperability of the databases created and managed by the many geological surveys of the region.

Standards development in support of CGI initiatives was extensively discussed and summarized at the thirteenth annual international technical workshop "Digital Mapping Techniques '09", held in Morgantown, West Virginia. Of particular relevance were summaries of: (1) methods for implementing OGC Web Map Services and Catalog Services in support of ongoing development of GeoSciML and OneGeology; (2) a new, simplified database design for publication of single geologic maps ("NCGMP09"), and its compatibility with GeoSciML; (3) science vocabulary standards under development for both the U.S. National Geologic Map Database and GeoSciML; and (4) collaboration with ESRI to implement the U.S. Federal cartographic standard for geologic maps.

Additional CGI-related activities included participation in the Geoinformatics Townhall at the Geological Society of America national conference in Portland, OR. Discussions continue on implementing a series of NSF-sponsored workshops for academics. David Percy gave a 45 minute seminar on Geoinformatics for the Portland State University Geology Department in Spring 2009.

CGI in South America



This year was a very active one in South America. CGI supported a full week of geoscience information activities in Buenos Aires (Argentina) producing significant improvements in the relationships between technical groups from different SA countries.

During this week (from 29 June to 3 July) several different activities took place: The Annual CGI Meeting, the CGI Seminar, the first Geoscience Information Specialist Latin America Meeting (ASGMI Geological Surveys Meeting), and the OneGeology Operational Management Group meeting.

The CGI Seminar gave the SA technicians the opportunity to stay in contact with the latest developments in geoscience information (GI) standards, GI information policies, national and international projects, as well as to become familiar with the current state of GI developments.



The first GI Latin America Specialist Meeting was organized with the aim of creating a regional group on GI and promoting the development of a cooperation framework. Experts from Argentina, Brazil, Chile, Ecuador, Dominican Republic and Spain attended these sessions. Initially this group is looking for institutional support from ASGMI and the proposal to this organization will be sent during the next general ASGMI meeting that will be take place during 2010.



The OneGeology Operational Management Group was also held in Buenos Aires. During this meeting the current status of OneGeology development in SA was presented and the necessity of training on interoperability and geosciences was raised. A plan for three training courses about: 1) basic interoperability, 2) GeoSciML Training Course Preparation (given by OneGeology Technical Working Group in order to prepare future trainers) and 3) GeoSciML (given by locals open to all SA) are in progress. The Spanish International Cooperation Agency will support courses 1 and 3 and, at present, course number 2 is looking for funds.

Brazil recently started publishing their geological data in GeoSciML. This is an excellent development from South America in the OneGeology initiative. Contacts with Bolivia and Peru are still difficult and we hope to renew contacts with Paraguay, Uruguay and Venezuela.

CGI Seminar Information Technology and Geosciences for Latin-America

A successful seminar on information technology and geosciences was organized by the CGI, the Geological and Mining Survey of Argentina (SEGEMAR) and the Jacobs University (Bremen, Germany) in Buenos Aires Argentina), from 30 June to 1 July.



The aim of this seminar was promote the development of geoscience information technology and science in SA with special emphasis in corporate data management, interoperability standards, institutional data policies, and the last developments and rules of geological surveys on national spatial infrastructure programs.

The seminar was attended by 184 participants from nine nations (from Latin America: Argentina, Brazil, Chile, Colombia, Ecuador and Dominican Republic; from the rest of the world: Australia, Spain and United States).

The first day main technical presentations were made by the CGI council and during the second day the regular sessions had 17 presentations mainly given by locals and also with contributions from Australia, Spain and USA.

This seminar was a good starting point for similar meetings. As a result of the success of this initiative, a new congress about land management, spatial data infrastructures and interoperability is in preparation.

CGI in Asia

The major Activities of the CGI East and Southeast Asia Regional Group in 2009 included the 3rd CCOP-GEO Grid and Asian Geoinformation Infrastructure workshop held in Bangkok, Thailand from 17-18 March 2009. This was followed by the ASEAN + 3 Geoinformation Seminar held in Shanghai, China from 6-7 April 2009. The International Symposium on Geoinformatics was held in Tokyo, Japan on 25 May 2009. The activity was organized by GSJ, Japan Society of Geoinformatics and the Geoscience Information Consortium (GIC). Another major activity was the CCOP annual meeting held in Vung Tau, Vietnam from 19-25 October 2009. The meeting consisted of the 46th Annual Session from 19-23 October and the 53rd Steering Committee meeting from 24-25 October 2009. GSJ also participated in the GeoSciML and OneGeology technical working group meetings held in Quebec City, Canada from 21-25 September 2009. Another important event was the setting up of a small committee for the CGI/IUGS, under the IUGS subcommittee of the Earth and Planet Science Committee, by the Science Council of Japan on 24 June 2009.

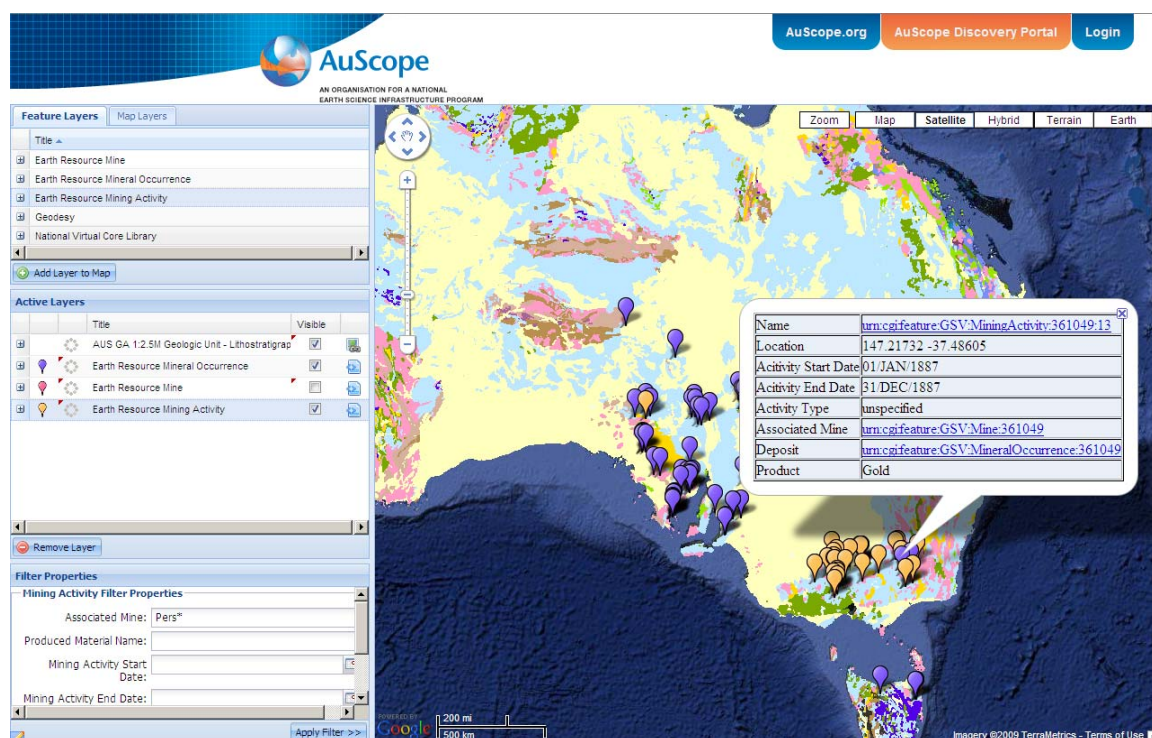


The Web portal for the Asian OneGeology site was launched in March 2009. The site is called East Asia Open Spatial (<http://geodata1.geogrid.org/EastAsiaSpatial/index.html>), showing the region's geological map WMSs that are compliant to OneGeology Level 1 specification. New organizations and countries in the region expressed their intention to join the OneGeology project. These include Japan's National Institute of Polar Research (NIPR) and the geological surveys of Mongolia and Pakistan.

CGI in Oceania

The AuScope Community Earth Model is building an e-Research Infrastructure as part of the Australian Government National Collaborative Research Infrastructure Strategy to federate nationally distributed data sets, to develop tools to manipulate large data volumes and to establish an appropriate governance framework to ensure sustainability. This Community Earth Model will use open geospatial standards to allow real time access to data, information and knowledge stored in distributed repositories. It is being built on 'end-to-end' science principles whereby there will be access to the highly processed information and knowledge as well as the original raw data and the processing programs used to generate the results.

AuScope is working closely with the CGI-IUGS sponsored GeoSciML community to develop open source tools to generate community schema (FullMoon), modify the service middleware required to deliver complex geological data (GeoServer) and develop vocabulary services and software to support data content standards. To further the CGI-IUGS work, the TWiki discussion and email list services required to progress the GeoSciML development, as well as the various versions of the schema are all hosted and maintained by AuScope.



The AuScope Discovery portal allows discovery and display of geoscience data conforming to community defined schema such as GeoSciML and EarthResourceML.



Web feature services have been established using the AuScope Community Earth Model software that deliver the mineral occurrence data from (currently) three State geological surveys in a common EarthResourceML format. The AuScope Discovery portal (<http://portal.auscope.org/gmap.html>) allows querying and displaying these web feature services, as well as display and query of simple web feature services and web mapping services. All the software has been developed in-line with open source aims.

CGI in Africa



The most significant CGI activity in Africa in 2009 was the GIRAF workshop. Between 16 - 20 March 2009, 97 participants from 22 African nations, plus four European countries and representatives from UNESCO, ICSU and IUGS-CGI held a workshop at the Namibian Geological Survey in Windhoek. The workshop – GIRAF 2009 – Geoscience InfoRmation In Africa – was organised by the Federal Institute for Geosciences and Natural Resources (BGR) and the Geological Survey of Namibia (GSN) at the Namibian Ministry for Mines and Energy and was mainly financed by the German Federal Ministry for Economic Cooperation and Development (BMZ), supported by the IUGS Commission for the Management and Application of Geoscience Information (CGI). The participants came to Namibia to discuss one of the most topical issues in the geological domain – geoscience information and informatics. A prime objective was to set up a pan-African network for exchanging knowledge about geoscience information.

GIRAF 2009 builds on the results of a preparatory workshop organised by the CGI and funded by the IUGS, which was held in June 2006 in Maputo at

the 21st Colloquium on African Geology – CAG21. This preparatory workshop concentrated on identifying general problems and needs of African geological institutions in discussion with representatives of African geological surveys, universities, private companies and non-governmental organisations. The GIRAF 2009 workshop used the results of this discussion to plan and design its programme

Aims and objectives

In detail the aims of the GIRAF2009 workshop were:

- to bring together relevant African authorities, national experts and stakeholders in geoscience information;
- to initiate the building of a pan-African geoscience information knowledge network to exchange and share geoscience information knowledge and best practice;



- to integrate the authorities, national experts and experts across Africa into global geoinformation initiatives;
- to develop a strategic plan for Africa's future in geoscience information;
- to make Africa a more active part of the international geoscience information community.

The programme for the GIRAF 2009 workshop was designed to explore each of these aspects to improve the way geoscience information contributes to improve the health and prosperity of the people in Africa.

The Programme

After welcome speeches from the Namibian Minister of Mines and the German Ambassador for Namibia, the workshop commenced with a series of keynote presentations, including Professor Sospeter Muhongo (ICSU) on the status of and the need for a network on geoscience Information in Africa, Dr. Felix Toteu (CRGM, Cameroon) on the reasons for a Geoscience Workshop in Africa, and Sarah Gaines (UNESCO) on UNESCO Earth Science Initiative in Africa. The aim of the week, however, was to better understand the reality of the status of geoscience information management, delivery, and systems from the perspective of the practitioners and projects across Africa. To do that the GIRAF workshop adopted three different approaches:



- 1 projects and initiatives in the national geological survey organisations across Africa were presented by the participants and their presentations discussed;
- 2 two sets of breakout sessions were held, allowing more detailed discussion of specific issues;
- 3 on each of three days, a novel “Question of the day” was posed, where feedback from individuals was sought on three pointed questions.

These exercises ensured that every attendee was able to contribute his/her views and experiences. The results were intense discussion of the issues which the participants felt were key to developing and improving the way geoscience information

could be managed and delivered in Africa. The very tangible outcome of a hardworking but fruitful week was the unanimous endorsement of a series of practical recommendations – the GIRAF Strategy and Agreement.



OneGeology



CGI and its members of its Council continue to be very closely involved in the development of OneGeology – the global initiative to make digital geological map data for the Earth more accessible.

Currently 113 nations are participating in OneGeology and 40 of these are serving 219 datasets to the OneGeology web portal (<http://portal.onegeology.org/>). Technically, OneGeology also continues to progress well in close collaboration with the CGI Interoperability Working Group and we are seeing more nations move from Web Map Services (WMS) to Web Feature Services (WFS) which offer significantly more functionality for the user. OneGeology-Europe, a 20 nation project which sits within the OneGeology global framework and which is being funded by the European Commission (€3.25 over two years), is accelerating progress on data models, a set of rock terms and ontologies and also the serving of high resolution geological data.



A very successful first meeting of the OneGeology global Steering Group was held in Paris in April.

The Steering Group also held a telephone conference in November 2009 and endorsed a very significant step in OneGeology's governance and sustainability – approving its progress towards incorporation. Earlier in the year the Operational Management Group met in Buenos Aires, in a meeting timed to coincide with the CGI Council meeting and the South American seminar. A wide ranging series of constructive discussions took place on progress to date

and next steps and we were very pleased to have the President of IUGS attend the whole meeting.

The next Steering Group and Operational Management Group meetings will take place in April in New Zealand and in July in Germany, respectively.

Steering Group members are:

Dr Hirokazu Kato (Director General Geological Survey of Japan representing CCOP)

Dr Alex Malahoff (Chief Executive GNS Science New Zealand)

Prof Alberto Riccardi (President IUGS)

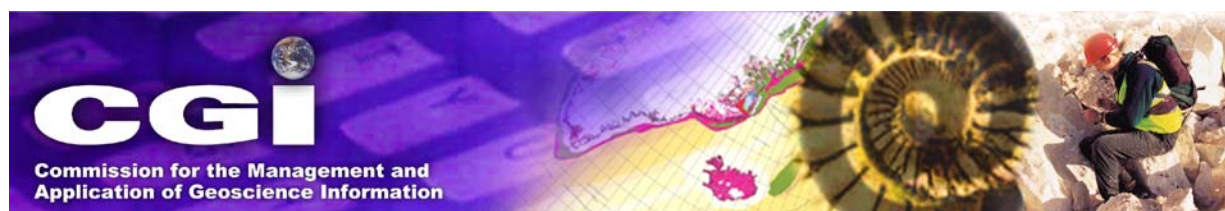
Dr Suzette Kimball (Acting Associate Director for Geology USGS)

Dr Marko Komac (Director Slovenian Geological Survey)

Dr Gabi Schneider (Director Geological Survey Namibia)

Robert Missotten (Chief Global Earth Observation Section UNESCO)

Dr Manuel Pubellier (Secretary General CGMW)



OGC Advances in Harmonization and Interoperability

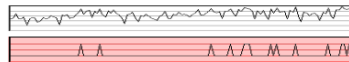


The Open GeoSpatial Consortium (OGC) is the main standardization body for open, interoperable geographic information service interfaces. In the reporting period, high emphasis has been put, among others, on advancing interface standards for observational data. On the one hand, the Sensor Web Enablement (SWE) standards suite addresses sensor data collection and processing in an application driven manner. On the other hand, the Web Coverage Service (WCS) standards suite addresses space-time varying phenomena, such as 2-D satellite imagery, 3-D x/y/t image time series and x/y/z geophysical data – where OGC meets with CGI –, and 4-D climate and ocean data, to name but a few. A CGI Council member serves on the Board of OGC and another Council member is co-chair of the coverage-relevant working groups in OGC, editor of many of the coverage standards documents, and is the appointed liaison person to achieve and maintain harmonization in the field of coverage standards.

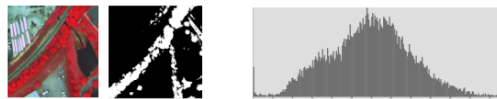
2009 has seen significant advances in this field. Beginning 2009, the new OGC Web Coverage Processing Service (WCPS) has been published, which extends WCS with a query language on multidimensional raster coverages; hence, WCPS has been dubbed “SQL for coverages”.

Over summer and fall, the WCS specification itself has been revamped, leading to WCS 2.0 which has been proposed for voting by the OGC members in December 2009. WCS 2.0 will greatly enhance harmonized access to coverages, relying on GML 3.2.1; in future, coverages can be passed on between different service types, such as SOS, WPS, and WCS. The WCS specification itself is modularized so that application profiles can be built for different domains, such as SCADA (sensory), earth observation, earth system modelling, and geology. Extending WCS with functionality, but also with relevant data formats, will be a main topic in 2010.

- Time series



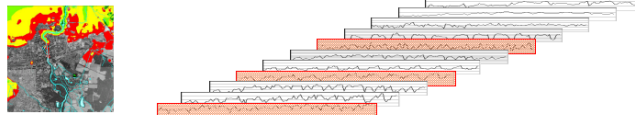
- Image processing



- Summary data

- current value is 82204;
- average over all values up to now currently is 7461.7592207695334.

- Sensor fusion & pattern mining



OGC WCPS for ad-hoc navigation, extraction, summarization, and analysis



CGI at the 34th IGC in Brisbane



Plans for the 34th IGC Geoscience Information Symposium

The 34th IGC Scientific Program Organising Committee has accepted the IUGS-CGI proposal to hold a Geoscience Information Symposium during the Brisbane, Australia 2012 International Geological Congress. The symposium will be run by the CGI in conjunction with the International Association for Mathematical Geosciences (IAMG) and Geoscience Information Consortium (GIC).

Although planning is at an early stage the aim of the symposium is to have all the geoscience information-related papers in an information "supersession" to ensure that papers dealing with similar topics are all assessed similarly and presented in common sessions. The intention is to ensure the highest quality of accepted papers, minimise conflicting sessions with similar topics and keep all the information related sessions in the same week, if at all possible.

Abstracts and convenors will be sought for sessions covering the rapidly evolving information related subjects. At this stage the proposed themes are:

1. Regional Geoscience Information Developments – *regional (Africa, South and Central America, Asia, Oceania, Europe, North America) information related activities;*
2. Interoperability and Standards Developments – *digital and non-digital information management, information models and schematic and semantic exchange standards, including thesauri, vocabularies, ontologies and metadata;*
3. Dissemination and promotion of geology– *OneGeology, Spatial Data Infrastructure projects, use of GIS and the internet, creative commons, intellectual property and digital rights, digital archiving and virtual museums;*
4. Mathematical Geology and Geostatistics – *data analysis, geostatistics, geomathematics and statistical tools for evaluating climate change;*
5. Model fusion, Visualisation and Exploration – *multidimensional (2D, 3D, 4D, nD) modelling, visualisation and immersion techniques, modelling uncertainty, exploration and environmental GIS and modelling, and integrating geological and non-geological data;*
6. Software, Hardware and Open Source Tools – *covering information technology, high performance computing, and information management and field data capture systems.*

Discussion is also underway on the possibility of having the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) and the United Nations Framework Classification for Fossil Energy and Mineral Resources Terminology (UNFC) include a session on international mineral resource/reserve reporting standards in the Geoscience Information Symposium.

Representatives from the CGI, the IAMG and GIC are co-ordinating the geoscience information-related papers. They are currently canvassing further ideas for the symposium as well as potential session chairs.



CGI Business

Review of CGI by the IUGS

The review took place on 24 and 25 September 2009, at the German Geological Survey (BGR), Hannover, Germany. Attending the review were:

Ad hoc Review Committee members:

- Peter Bobrowsky - IUGS Secretary-General (ARC Chair)
- Colin Simpson - IUGS Councillor (ARC Secretary)
- Jonas Satkunas - Deputy Director –Lithuanian Geological Survey
- Brian Marker (Independent Consultant)

CGI Council Member Participants

- Kristine Asch (CGI Chairperson) - Germany
- Ian Jackson (CGI Secretary General) – United Kingdom

In addition to a full dialogue between review participants a full suite of documents and presentations were reviewed. In summary the review concluded that CGI was performing well and was a very successful Commission, especially in the areas of standards and outreach (eg GeoSciML, GIRAF and OneGeology). There were a few areas which would merit further attention, including opening up areas of the website, increasing effort on the MLT, interacting with the IUGG and spearheading a multi-union proposal to ICSU.

Meetings

The CGI Council Annual Meeting was held in Buenos Aires in July. Buenos Aires was chosen as this was also the venue for a major CGI workshop and seminar on geoinformation in South America. The CGI Council meeting was also attended by the IUGS President, Professor Alberto Riccardi. The minutes and actions of the meeting can be found on the CGI website ([http://www.cgi-iugs.org/members/docs/notes CGI Council meeting June 2009Final.pdf](http://www.cgi-iugs.org/members/docs/notes_CGI_Council_meeting_June_2009Final.pdf)) Council members also met opportunistically at a number of events throughout the year.

Website and communications

The CGI website is regularly updated by the CGI Secretariat (our continuing thanks to Kathryn Bull of BGS). The website was totally revised during the past twelve months and now looks more professional and is more user-friendly, in addition to containing all the documentation about the Commission. A Wikipedia entry for the CGI with links from the IUGS entry was created (http://en.wikipedia.org/wiki/Commission_for_the_Management_and_Application_of_Geoscience_Information).

Membership

CGI now has 239 members in 64 countries across the world.



Finance and budget

CGI receives funding from the IUGS but no direct regular financial support from other bodies. It does however receive considerable indirect support in terms of staff-time and meetings and infrastructure facilities from the parent organisations of its Council members and organisations such as CGMW.

Thanks to the funding of the German government, the expenses incurred by CGI for the organization of the GIRAF event have been very limited.

In 2009, the CGI budget has mainly covered the expenses for travel of John Broome, representing IUGS at the CODATA meeting in Kiev, and of Steve Richard (Chair of the CGI Geoscience Concept Definitions working group) to the MLT annual meeting of St Petersburg.

The detailed planned CGI budget and spending details for 2010 will be dominated by expenditure on the CGI Science Language Workshop, but will also include spending on the maintenance of the CGI website and GeoSciML documentation.

The CGI Accounts are presented below:

	\$ account		€account	
	in	out	in	out
october 2002 kickoff "new" CGI	2,172.81		1,113.59	
2002 allocation IUGS (3000\$)	3,000.00			
2001/2002 grant ICSU (5000\$)	5,000.00			
Council meetings				-10.00
new web site		-2,512.32		
CGI bank account costs		-0.60		
balance 2002	7,659.89		1,103.59	
2003				
2003 allocation IUGS (5000\$)			4,104.75	
Council meetings				-826.27
MT workinggroup				-426.00
CGI bank account costs				-25.00
Balance 2003	7,659.89		3,931.07	
2004				
2004 allocation IUGS (5000\$)			4165.28	
debudgetting unclaimed expenses 2003			426.00	
Council meetings				-138.00
CGI Flyer				-696.00
MT Workinggroup				-426.00
Firenze prep. & participation				-294.60
Website				2006.05
CGI bank costs				-20.00
Balance 2004	7,659.89		4,941.70	



2005				
domain name CGI website (28.2£)				-43.00
2005 allocation IUGS (5000\$)	5000.00			
council meetings				-286.30
Cost CGI bank account 2005				-20.00
Balance 2005	12,659.89		4,592.40	
2006				
IUGS Grant outreach workshop (10000\$)	10,000.00			
UNESCO Grant outreach workshop leaflet (5000\$) contract 4500027900	5,000.00			
2006 IUGS allocation (5000\$)	5,000.00			
Refund Datamodel workshop Perth dec 2004		-367.68		-27.83
Maputo outreach workshop		-2941.23		3510.85
Printing and Shipping leaflet		-4690.00		2390.49
internal transfer \$ => €		-5000.00	3857.73	
Balance 2006	19,660.98		2,520.96	
2007				
cost CGI bank account 2006				-20.00
2007 IUGS Grant allocation	7500.00			
Cost domain name CGI website (24.99£)				-41.79
cost CGI bank account 2007				-30.00
Balance 2007	27,160.98		2,429.17	
2,008				
Travel expenses preparation Giraf Schutte				-240.00
cost CGI bank account 2008				-30.00
cost transfer accounts Fortis--> LCL				-43.26
Balance 2008	27,160.98		2,115.91	
2,009				
ACCOUNTS TRANSFERED				
Travel expenses Broome CODATA		-1139.69		
Repro banner Giraf				-216.91
2009 IUGS allocation	15,000.00			
cost transfer IUGS --> CGI		-23.01		
Travel expenses S. Richard - MLT St Petersburg		-2808.85		
transfer charges		-24.60		
Balance may 2009	38,164.83		1,899.00	



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CGI Council
2 December 2009



List of Council Members 2008–2012

Kristine Asch (Chair)
Bundesanstalt für Geowissenschaften und Rohstoffe
Stilleweg 2
D – 30655 Hannover
Germany
Telephone: +49 511 643 3324
Fax: +49 511 643 3782
Email: kristine.asch@bgr.de

Ian Jackson (Secretary General)
British Geological Survey
Kingsley Dunham Centre
Keyworth,
Nottingham NG12 5GG
UK
Telephone: +44 115 936 3269
Email: ij@bgs.ac.uk

François Robida (Treasurer)
BRGM
3 avenue C Guillemin
BP 36009
4506 Orleans cedex 02
France
Telephone: +33 2 38 64 31 32
Email: f.robida@brgm.fr

Gabriel Asato
Geological and Mining Survey of Argentina
(SEGEMAR)
Av Julio A Roca 651 p8 of 1
Cdad Autónoma de Buenos Aires
Argentina
Telephone: +54 11 4349 3158/26
Fax: +54 11 4349 3187
Email: g_asato2000@yahoo.com

Peter Baumann
Professor of Computer Sciences
Jacobs University Bremen
Campus Ring 12
28757 Bremen
Germany
Telephone: +49 421 200 3178
Fax: +49 421 200 493178
Email: p.baumann@jacobs-university.de

John Broome
Earth Science Sector
601 Booth Street
Ottawa
Ontario
Canada
K2R 1G2
Telephone: +1 613 995 6914
Fax: +1 614 995 2339
Email: broome@nrcan.gc.ca

David Percy
Department of Geology
Portland State University
1721 SW Broadway Rm 17x
Portland
OR 97201
USA
Telephone: +1 503 725 3373
Email: percyd@pdx.edu

Bruce Simons
Senior Information Geoscientist
GeoScience Victoria
Department of Primary Industries
GPO Box 4440
Melbourne
Victoria 3001
Australia
Telephone: +613 9658 4502
Fax: +613 9658 4555
Email: bruce.simons@dpi.vic.gov.au

Dave Soller
US Geological Survey
926A National Center
Reston VA
20192
USA
Telephone: +1 703 648 6907
Email: drsoller@usgs.gov

Koji Wakita
Institute of Geoscience
Geological Survey of Japan
1-1-1 Higashi
Tsukuba
Ibaraki 305-8567
Japan
Telephone: +81 298 61 24694
Fax: +81 298 61 3742
Email: koji-wakita@aist.go.jp

