Minutes

Subject:	HMA FO Task 1 Metadata Workshop
Date:	2009-09-29
Location:	OGC TC Darmstadt
Presence:	PierGiorgio Marchetti , Jolyon Martin ESA Jean-Pierre Gleyzes, Jerome Gasperi: CNES Frank Cadé, Michael Schick, EumetSat Lucio Colaiacomo, EUSC Olivier Lauret , CLS Yves Coene, Spacebel Frederic Houbie, ERDAS Steven Smolders, GIM Dominic Lowe, Victoria Bennet, Andrew Woolf: STFC Daniele Marchionni: Datamat Uwe Vogues: Conterra Simone Gianfranceschi: Intecs Stephane Meissl, EOX
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	Agenda • Introduction to HMA-FO Task 1 objectives (ERDAS) • Improving the specification using MDA and O&M (STFC) • Output HMA-T : Systematic and Synthesis Products (GIM) • Limb Looking Products (STFC) • Radar Altimeter Products (EUMETSAT/CNES/CLS) • ESA GECA Project • Standard Evolutions (ERDAS) All presentations are available on the HMA WIKI at http://wiki.services.eoportal.org/tiki-index.php?page=HMA+FO+Task+1+metadata+workshop
A1/ESA A2/ERDAS	**Presentation Frederic Houbie** • Question EumetSAT: can we propose additional attributes that were missed out previously but have nothing to do with these new categories. Yes, this is the appropriate moment for providing input on existing product schemas • Jolyon Martin will provide the old metadata mapping spreadsheet that was used before OGC06-080 was created (action closed). • Question whether the Atmospheric product schemas are currently used in a Catalogue implementation? They were created on the basis of requirements of DLR SAF. To be

	verified with DLR whether this is actually used. • Limb looking and atmospheric products could perhaps be dealt with jointly. • On Systematic and synthesis products: input from EMSA and Meteo France was received prior to the meeting. • ERDAS confirms that GML instance documents will be validated using the updated schemas and schematron rules. The HMA skeleton, SSE Client and CITE are targeted at the updated EO EP ebRIM CSW.
	Presentation Andrew Woolf on conceptual modelling • Using a Model Driven Approach, UML descriptions can be automatically translated to GML application Schema. • ISO HMMG stands for Harmonised Model Maintenance Group • Two available tools. ShapeChange tool developed by Clemens Portele- used in INSPIRE, FullMoon developed by CSIRO • Question is the conversion possibly in both directions? No it only works in the way from UML to XML and not the other way round. • Reverse engineering of OGC06-080r4 was manually done. It is done on the basis of the approach followed for developing the INSPIRE Data Specifications. • To note that this is work in progress that is not finalized. Outcome will however likely closely resemble the existing EO Profile of GML. • ISO19156 O&M deprecates the gml:observation. Adoption of O&M will need to happen if the EO GML is updated. • O&M: contains an Observed property that can be used to capture the physical quantities which will become more important when L2 / L3 products are taken up. • Question does O&M provide a code list for observed properties? Answer this is not part of the O&M spec. Such lists could be borrowed from Netcdf-CF. Perhaps the list that is being proposed in the ESA GECA Project can be reused. • Task 3 will be looking at developing a WCS EO Profile. For WCS, coverage metadata is required that goes further than what is contained within the EO GML. WCS currently uses a CoverageOffering structure that contains metadata on domains and ranges. • Interesting is the fact that WCS 2.0 will abandon in its own coverage model and look at ISO19123 and its GML encoding. • In order to be able to reuse the EO Profile of GML for this coverage metadata, there is a need to extend the EO Profile of GML with typical coverage use metadata (domain and range descriptions). • Comment ESA: schema extensions for exploitation metadata should be clearly distinguishable and such that the exploitation metadata is optional.
	Presentation VGT products • Exploitation metadata is metadata that is stored in the data files itself, could be interesting to use the same model (or extensions to the model) as for the Catalogue metadata. Specially because for WCS 2.0 usage gml:coverage based descriptions are required. • In ISO19115, there are a lot of elements but very few for discovery, how to handle this in EO Profile of GML. Best

	solution is to structure the metadata to have both discovery & exploitation, knowing that catalog will only use the discovery metadata part for cataloguing • Input metadata requirements on the new product types by external partners is to be send to the G-Hmafo-Task1@spacebel.be and/or posted to the HMA WIKI (see http://wiki.services.eoportal.org/tiki-index.php?page=NewProductTypeMetadata)
	Presentation STFC Victoria Bennet - Questions: o L1B and L2 data or also L3data to be covered: ESA replies Yes o Combined products limb/nadir to be covered: Yes o Limb occultation data like: GOMOS: yes => information on star position that can currently not be captured o NASA instruments? Yes take into account the information that is available o 1D Retrievals or 2D retrievals: 2D retrievals may need to be covered. o EUMETSAT Comment: GRAS occultation products points to be considered. o Note that a common CRS is required for Catalogue Discovery therefore CRS:84 needs to be supported for footprints, Measurement points and profiles could be taken up in other elements
A3/CLS A4/SPB A5/ Task 1 consortium	**CLS Radar altimeter products** o Linear geometry or polygons with width that is representative for the antenna footprint or the error: There currently a debate around this. CLS to make a choice o There is no EPSG code for the CRS that TOPEX, Poseidon, JASON1, JASON 2 are using (different reference ellipsoid) o For ERS-1 and 2 reference ellipsoid is WGS-84 o CEOS definition of product levels are not so clear. Not the same meaning for all products/ o Presentation is based on discussion with CNES/EUMETSAT o Some of the elements/attributes that were thought to be missing are already available at collection level. Final conclusion is that there are only 2 elements missing. o Granularity of products? A product relates typically to a file, what is provided to the user. o Suggestion from CLS to look at OWL/SKOS that is used in MyOcean o Question : Is it the same as Seadatanet is using. Not exactly. Official availability of ontology for late 2010 but work has started on this. CLS to provide information. o Comments from STFC: GML:dictionary concepts are disappearing in favour of ontologies. o ESA: currently OWL is done at the collection level is it the same at the product level. SPB to move the OWL page on the WIKI to an open public place. o Consortium to start discussions with CLS on preferred approach for geometry line versus geometry. o Question ESA: Timing of CLS implementation: can this be linked with the development of the application schemas so that it can really be used for developments. To the end of the year feasibility study. In the year afterwards the implementation will follow. But start with optical. Radar altimetry would be a good candidate for second implementation.

	This project may also be a good moment to define guidelines on how the footprint geometry should be encoded to avoid display issues with footprints crossing the datelines and the poles. The consortium could look at the practices at the different Ground Segments to see whether a harmonised approach is feasible. There also may need to be alignment with ordering specification with respect to scene selection. At the midterm review of both tasks to check whether the standards have not diverged.
A5/Task 1 consortium A6/ESA	ERDAS closing presentation - ESA Comments that ISO19115 was also not selected because of the focus on administrative information which is not relevant for individual data products - Comment of Uwe Vogues: advantage was just in mapping all the product information in the ebRIM as this creates flexibility in discovery and queryables - Comments of CNR: EO Profile of GML was not needed for ESA. ESA clarifies that the GetRepositoryItem is indeed currently optional for legacy systems to avoid these systems having to implement both EO Profile of GML and ebRIM. - It is to be noted that orbitNumber and processorVersion are fields that are in fact queryables. But not information like the browseURL and the productURL - Comment EUMETSAT: put thumbnail in GetRecords not the browse - Comments INTECS: if you add a new schema, chance is that indeed there is a need for additional queryables. This is correct and new queryables means new extension packages. However not all schema extensions require new queryables. - Question datamat on the proposition 1 for the light extension package: Why have the association? Answer required as there is a many to one relationship. - Comment EumetSAT : can also be many to many for high level products that are composed of products coming from multiple instruments - Comment ESA: Verify that MTOM/XOP is supported by BPEL - Comment INTECS: use of MTOM/XOP may also have an impact on user management- - Can this pass through WSFirewalls: - SensorML: separate extension package for SensorML - Consortium to first prepare a consolidated list of queryables and further refine the proposition to be provided by the end of October to be submitted for Review. - For the queryables, ESA will provide the results of the conformance questionnaire (action closed).