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GML 4.0 Workshop Report to OGC TC

78th OGC Technical Committee

Boulder Colorado, USA

Clemens Portele

September 22 2011

Workshop Goals



- Collect guidance from the GML user community and developers on market needs for changes to GML → determine the evolution of the GML standard

Agenda



Setting the context

Workshop introduction and goals Clemens Portele

Overview of change requests Simon Cox

Views (community perspectives)

Statements on the public wiki David Burggraf

Aviation DWG Hubert Lepori (remote)

WaterML David Valentine, I-Lin Kuo, Peter Taylor

Coverages SWG Peter Baumann (remote)

CityGML Thomas Kolbe, Claus Nagel

Ordnance Survey Carsten Roensdorf

OASIS, IETF, W3C Carl Reed

GeoSciML Ollie Raymond, Eric Boisvert, Steve Richard, Simon Cox

German Cadastral and Mapping Agencies Markus Seifert, Clemens Portele



Agenda



Views (developer perspectives)

ERDAS/Intergraph	Phillipe Duchesne
OpenGeo	Chris Holmes
Galdos	Ron Lake
Snowflake	Ian Painter
Discussion	
Discussion / conclusions	facilitator: Clemens Portele

Slides are available in the meeting folder and will be published on the public wiki as PDF documents

Key results/messages



- Stability of the standard / backwards compatibility of schemas and instances is important for most
- Do not create GML 4, if it is mainly a modularised GML 3
- GML works best where the formalisation of an application schema is important; too complex when just point/line/polygon data exchange is needed
- Strengthen GML in what is it good at, do not try to make GML do everything

Addressing key issues raised by communities and developers (1/3)



Key issues	Solution ideas
Changes between versions	<ul style="list-style-type: none">• Stability of standards is important – maintain backwards compatibility
Complexity – for users and developers	<ul style="list-style-type: none">• Provide simple tutorials and other education material• Document best practice including mappings to/from other models / representations (currently we have this for ISO 19109 application schemas in UML)• <u>Modularisation</u>, profiling, and/or registry of elements• Encourage better tool support – in particular on the client side• <u>Move away from XML Schema</u>

Addressing key issues raised by communities and developers (2/3)



Key issues	Solution ideas
Alternate encodings like JSON become increasingly popular	<ul style="list-style-type: none">• Support for encodings that is not XML is out-of-scope for GML• But not out-of-scope for OGC!
Use of identifiers	<ul style="list-style-type: none">• Document best practices related to URIs, external vs. internal identifiers, etc.• <u>gml:id should be optional</u>
Use of linking – including issues related to streaming	<ul style="list-style-type: none">• Document best practices for usage of Xlink. Investigations by WaterML suggest that Xlink may not be adequate. Needs to be investigated further.• <u>Drop Xlinks and use ATOM links</u> (but this is clearly not a good reason to move to GML 4)

Addressing key issues raised by communities and developers (3/3)



Key issues	Solution ideas
Extensions	<ul style="list-style-type: none">• New schema in a new namespace – as part of GML 3.x or outside of GML
Overlap with other developments, e.g. coverages, dictionaries	<ul style="list-style-type: none">• Deprecate more current schema components and develop a new schema either as part of GML in a new namespace, outside of GML or simply recommend a third party schema

Preliminary conclusions

(to be further discussed in the GML SWG)



- Do not work on a version GML 4.0
- Need for tutorials, education material and best practices in general and on specific topics
 - The need for stability expressed during the workshop was not just related to GML, but for OGC standards in general
 - Documentation does not have a high enough priority in OGC: there needs to be some funded activity for introductory material
 - Interoperability Program initiatives like OWS-9 should include a focus on tutorials and documentation of best practices for publication as HTML pages as well as improvements on standards
- Requirements for additional non-XML-based feature encodings should be addressed by OGC
 - But non-XML is not in scope for GML SWG