



Best Practices for using OGC WMS with Time-Dependent or Elevation-Dependent Data

4th Workshop on the use of GIS/OGC standards in meteorology
ECMWF, Reading

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Agenda



- Background
- On going process on WMS best Practices
- Where are we?
- Where can you find the documents?

Background



- 2009 Inquiry : 10 issues :
 1. Time handling (12 times)
 2. Bounding Box, Anti-Meridian, poles & Southern Hemisphere, Projections (6 times)
 3. Vertical coordinates (5 times)
 4. Metadata, search and filtering (4 times)
 5. Performance (4 times)
 6. Asynchronous and dynamic delivery (3 times)
 7. Styling (3 times)
 8. Security (2 times)
 9. Integration with other systems, such as WCS, GRIB, OpenDap (2 times)
 10. Cross section description (1 time)
- 2010 Workshop :
 - What should be into the WMS Met Ocean Applications Best Profile ?
 - What is a broader concern
 - Identify our specificities around these issues
 - Define the activities needed to push our specificities into the OGC SWG
 - Organise a reporting and contribute to Interoperability Experiments
 - Involve more people, more servers, more clients into the I.E.
 - Define a roadmap or a procedure

10 issues



- 1. Time handling (12 times)**
2. Bounding Box, Anti-Meridian, poles & Southern Hemisphere, Projections (6 times)
- 3. Vertical coordinates (5 times)**
4. Metadata, search and filtering (4 times)
5. Performance (4 times)
6. Asynchronous and dynamic delivery (3 times)
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9. Integration with other systems, such as WCS, GRIB, OpenDap (2 times)
10. Cross section description (1 time)

- A first proposal of Best Practices for WMS 1.3 focussing on Time and Vertical coordinates handling issued in Sept. 2012

Met Ocean Domain Working Group activities



1. Communication towards OGC Standard Working Groups
WMS, PubSub, SLD/SE, WCS, CRS, ...
2. Communication towards the Met Ocean Community
3. Modelling activities
4. *WMS best practices*
5. Interoperability experiments (*« to test solutions in reality »*)

Best Practices for WMS 1.3

 First formal proposal made available to the OGC Technical Committee in Sept 2012 and on the twiki :

- http://external.opengeospatial.org/twiki_public/MetOceanDWG/MetOceanWMSBPOngoingDrafts
- Successful vote in Seoul -TC to make this document begin a formal OGC process
- Synthesis of a collaborative consensual work
 - Editors :
 - Chris Little, UK, Met Office
 - Marie-Françoise Voidrot, France, Meteo-France
 - Roy Ladner, US, COMNAVMETOCOM
 - Jeff de La Beaujardière, US, NOAA
 - Jürgen Seib, GE, DWD
 - Stephan Siemen, ECMWF

Document content



- 1.Introduction
- 2.Scope
- 3.References
- 4.Terms and Definitions
- 5.Abbreviated terms
- 6.Conventions
- 7.Requirements for WMS Meteorology and Oceanography services



7.1WMS Layer – General Handling of Time

7.1.1WMS Layer – No defined Time

7.1.2WMS Layer – Single Time axis

7.1.3WMS Layer – Double Time Axes

7.2Elevation in WMS

7.2.1General Handling of Elevation

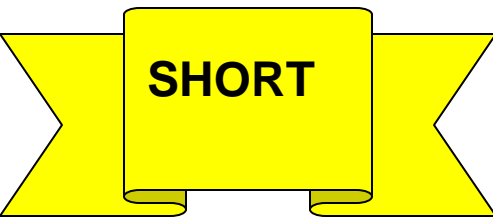
7.2.2WMS Layer – No defined Elevation

7.2.3WMS Layer – Computed Surfaces

7.2.4WMS Layer –Single Elevation

7.2.5WMS Layer – Multiple Elevations

7.2.6WMS Layer – Thick Surfaces



Change requests



- 52 Change requests mainly from Adrian Custer, but also some from Baudouin Raoult and Andrew Watkins
- Only editorial improvements
- Reviewed and mostly agreed

Main rewording without changing concepts



What did we keep? The main ideas

- TIME = validity time
- REFERENCE_TIME = 2nd time concept
- ELEVATION different use cases : numeric values, named values, thick layers

What has changed?

- The wording :
 - Enhancement of server and clients behaviour
- Editors : Big impulse and work from Adrian Custer

Where can you find the documents?

http://external.opengis.org/twiki_public/MetOceanDWG/MetOceanWMSBPOngoingDrafts

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**WMS 1;3
Fully respectful**

SHORT

Conclusion



- A stable kernel of participants
- We can expect to finish soon (/ very soon)
- We will communicate broadly when available
- We encourage you to implement it
- Interoperability experiments?

Thank you for your attention