



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
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International Cartographic Association
Association Cartographique Internationale



ICA Commission Workshop

OGC and its Geospatial Interoperability Standards

University of Pretoria, ICA Commission on SDI & Standards and the Committee for Spatial Information
Subcommittee on Education & Training

20 – 21 Sept 2018, Centre for Geoinformation Science, University of Pretoria, South Africa

Thursday (20 Sept)

8:30	Arrival and registration
	Session 1 – Technological Foundation – an overview <i>Chair: Franz-Josef Behr, Co-Chair ICA Commission on SDI & Standards</i>
9:00	Welcome
9:10	Introduction <i>Web-technologies, basic principles of web services and the underlying standards, protocols and addressing principles.</i>
10:00	Encoding spatial data: CSV, XML, GeoJSON, ... <i>You will get an understanding how geodata are readable for programs</i>
10:45	Break
11:15	OGC specific standardized encodings <i>Simple Features/WKT, GML</i>
12:00	Standardization: An overview <i>The process of Standardization, the involved bodies, the procedure Relationship between different standards and standardization bodies</i>
12:30	Lunch
	Session 2 – Hands-on: OGC Specifications in detail <i>Essential services are presented and practically explored by analysing the different operations and the results from the server. The connection between metadata, data models and presentation will be analysed. Modification of query parameters helps us to understand the approach of communication and the power of the services.</i>
	Getting Map Images: OGC/ISO 19128 Web Map Service (WMS) <i>What's the server offering: Understanding the metadata Web Map Tile Service (WMTS) and some supporting standards (Web Map Context (WMC, very brief), Styled Layer Descriptor (SLD) and Symbology Encoding (SE))</i>
	Getting Geospatial Data: OGC/ISO 19142 Web Feature Service (WFS) <i>We will see how metadata, data models and data are intertwined. The server will provide its data in different encodings (formats) and different spatial reference systems – at our finger tips</i>
	Extending the WFS approach <i>Web Feature Service Transactional (WFS-T), OGC/ISO 19143 Filter Encoding 2.0, Web Feature Service Gazetteer (WFS-G)</i>
16:00	End

Friday (21 Sept)

8:30	
	Session 3 – Reading a standard
9:00	The languages <i>UML-Class diagrams: An brief introduction</i> <i>XML Namespaces and XML Schema</i>
9:45	
10:00	Session 4 – Further Services
	Web Coverage Service (WCS) <i>An introduction into multidimensional datasets (data cubes) is given. The different options of retrieving data are explored.</i>
	Making data searchable: Catalogue Service for the Web (CSW) <i>Location Services (Open LS)</i> <i>Sensor Web Enablement (SWE)</i> <i>Web Processing Service (WPS)</i> <i>Web 3D Service (W3DS)</i>
13:30	Break
14:15	Session 5 – Outlook: Expected developments
	Towards REST and Semantic Web
	Towards WFS 3.0
	Closing
	Lunch