

Geo-standard Wiki

John Stuiver, Wageningen University, Netherlands

cen

ISO
ISO/TC 211

GEONOVUM

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Main Page

GEOSTANDARD WIKI OPENED

Consult the [User's Guide](#) for information on using the wiki software.

CHAPTERS

- 1 Framework Geo-standards
- 2 Metadata
- 3 Services Oriented Architecture (SOA)
- 4 Information modeling
- 5 Sensor Web Enablement
- 6 INSPIRE
- 7 Tiling

A special thanks to the cooperation and involvement from:

- 52°North
- Alterra
- Conterra
- Geodan IT
- Interactive-instruments
- Foundation Geonovum
- Foundation Space for Geo-Information
- Universities: Dresden, TU Delft en Wageningen University

For extra information concerning background, content and participation in this wiki environment, please contact [John Stuiver](#) of the Wageningen University

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Framework Geo-Standards



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1 Framework Geo-standards

- 1.1 What are geo-standards?
 - 1.1.1 Advantages of standards
 - 1.1.2 Standards and interoperability
 - 1.1.3 What are open standards?
 - 1.1.4 What do standards result in?
- 1.2 International standards
 - 1.2.1 Overview and targeted group
 - 1.2.2 ISO/TC211
 - 1.2.3 The OGC
- 1.3 European Standardisation
 - 1.3.1 Overview and target group
 - 1.3.2 CEN/TC 287
 - 1.3.3 INSPIRE
- 1.4 Dutch Standardisation
 - 1.4.1 Overview and targeted group
 - 1.4.2 NEN Standardisation
 - 1.4.3 Geonovum
 - 1.4.4 Electronic Government
- 1.5 Examples of ISO and OGC Standards
 - 1.5.1 ISO 19115 Metadata Standard
 - 1.5.2 OGC Web Mapping Service WMS
- 1.6 Framework of Geostandards
 - 1.6.1 Framework of Geostandards
- 1.7 Architecture
 - 1.7.1 Achitecture




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Metadata



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2 Metadata

- 2.1 Introduction to Metadata
 - 2.1.1 What is metadata?
 - 2.1.2 Why metadata?
 - 2.1.3 What can you do with it?
 - 2.1.4 Where can you find metadata?
 - 2.1.5 Applications
 - 2.1.6 Discovery discovery
- 2.2 Metadata standards
 - 2.2.1 What is a standard for?
 - 2.2.2 Standards for geo-information
 - 2.2.3 Metadata standards
 - 2.2.4 INSPIRE
 - 2.2.5 Discovery standards
- 2.3 Metadata in the working process
 - 2.3.1 How do you make metadata?
 - 2.3.2 How do you make metadata from services?
 - 2.3.3 Where in the working process?
 - 2.3.4 Tips for gathering metadata
 - 2.3.5 Publishing metadata
 - 2.3.6 Harvesting
 - 2.3.7 Validating
 - 2.3.8 Discovery working process
- 2.4 Metadata elements
 - 2.4.0 Overview of metadata elements
 - 2.4.1 Title of the resource
 - 2.4.2 Summary
 - 2.4.3 Status
 - 2.4.4 Level of hierarchy
 - 2.4.5 URL
 - 2.4.6 Protocol
 - 2.4.7 Name
 - 2.4.8 Unique Identifier of the resource
 - 2.4.9 Language of the resource
 - 2.4.10 Subject
 - 2.4.11 Keyword
 - 2.4.12 Thesaurus
 - 2.4.13 Thesaurus date
 - 2.4.14 Thesaurus date type

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Cohesive Architectures

The screenshot shows a Wikipedia page for 'Cohesive Architectures'. The page is in English and is part of the ISO/TC 211 project, as indicated by the logos on the left. The page content is organized into sections: 'Enterprise architecture', 'Architectural frameworks', and 'Architectural frameworks'. The 'Enterprise architecture' section defines it as the field that deals with the cohesive designing of the organisation in all its aspects. The 'Architectural frameworks' section explains that part of the job of an architect is to use architectural frameworks, which are structured collections of issues that may be dealt with during the creation of an architectural design. The page also includes a table of contents, a search box, and a navigation menu.

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Page Header: cen, ISO, ISO/TC 211, GEONOVUM

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Cohesive Architectures

Contents [hide]

- 1 Enterprise architecture
- 2 Architectural frameworks
- 3 Business architecture
 - 3.1 Concept (what?)
 - 3.2 Organisations and processes (how?)
 - 3.3 Processes
- 4 Information architecture
 - 4.1 Marking out
 - 4.2 Policy, guidelines, standards
- 5 Application architecture
 - 5.1 Marking out
 - 5.2 Policy, guidelines, standards
- 6 Technical (infrastructure) architecture
 - 6.1 System
 - 6.2 Data storage
 - 6.3 Network

Enterprise architecture

Enterprise architecture is the field that deals with the cohesive designing of the organisation in all its aspects.

Enterprise architecture offers a framework for organisations that want to change summarised, in headlines, in a cohesive and consistent description of the desired situation. This description offers hard and soft boundaries that try to restrict the space available for design at the lower levels in such a way, that the changes are made in accordance with the goals of the whole organisation. Enterprise Architecture takes the lead and offers concrete tools for the testing of changes. Enterprise architecture is, therefore, often regarded as an important steering instrument.

Architectural frameworks

Part of the job of an architect is to use architectural frameworks. These are structured collections of issues that may be dealt with during the creation of an architectural design. Frameworks predominantly have two dimensions that are sometimes completed with an extra dimension, to include, for example, themes such as the safety of information.

An architectural framework might be a useful tool that supports the architect when doing his or her job, especially when describing and communicating ideas about the architecture. The main goal of an architectural framework is to offer a way of organising and presenting architectural descriptions and visualisations.

Architectural frameworks, among other things, could help to:

3 SOA so what

Cohesive Architectures

- Architectural Developments
 - IT Architectural Developments
 - SDI Architectural Developments
- Reference Architecture
 - National Geo-Information Infrastructure
 - Position of Geo-information E-Government and the NGII
- Services Oriented Architecture (SOA)
 - Application integration schedule
 - SOA Services
 - Service Enterprise Bus
 - SOA Standards
- Implementation in the organisation
 - Introduction SOA for Organisations
 - SOA for an Organisation
- Installing the skeleton structure of SOA
 - Problem signalling
 - Quick scan
 - Proof of Concept and Action Plan
 - Implementation
 - Example of SOA implementations in geo-Holland
 - Documentation of SOA implementations in geo-Holland

Information Modeling (sic)

The screenshot shows a web page with a sidebar on the left and a main content area on the right. The sidebar contains logos for CEN, ISO, and GEONOVUM, along with navigation and search options. The main content area is titled '4 Information modeling' and contains a list of sub-sections.

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ISO
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4 Information modeling

4.1 Introduction

- 4.1.1 Goal and scope of course
- 4.1.2 Pre-requisites: knowledge of OO-modeling, DBMS DDL/SQL and/or XML schema, specific domain/theme
- 4.1.3 Introduction of participants & teachers
- 4.1.4 Tools
- 4.1.5 Organization of course
- 4.1.6 Course reading material
- 4.1.7 Purpose IM: 1. enable communication, 2. built system
- 4.1.8 Inventory of participants' most favorite domains/themes

4.2 UML Class diagram

- 4.2.1 Basic principles
- 4.2.2 Advanced principles

4.3 Hands-on 1: basic tools

- 4.3.1 Explanation of initial model assignment
- 4.3.2 Create UML class diagram for model with 3 or 4 classes
- 4.3.3 Define database tables for these objects (by hand)
- 4.3.4 Create XML schema for these objects (by hand?)
- 4.3.5 Evaluation of the results
- 4.3.6 Use of Enterprise Architect





4.4 Frameworks

- 4.4.1 OGC/ISO/CEN/NEN
- 4.4.2 Focus on INSPIRE Generic Conceptual Model
- 4.4.3 GII context
- 4.4.4 Generic aspects: id's, references, time, etc
- 4.4.5 Reusable model patterns:
 - 4.4.5.1 Topology (linear networks, partitions)
 - 4.4.5.2 Observation data - resulting objects
 - 4.4.5.3 Spatial object - relationship - person
- 4.4.6 Generic models, e.g. the 34 themes of INSPIRE

4.5 Methodology

- 4.5.1 User requirements, use cases
- 4.5.2 Inventory of available related data sets
- 4.5.3 Analyze the differences (data components, checklists)
- 4.5.4 Take initial decisions and develop model

INSPIRE



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6 INSPIRE

Scope

This course provides an overview about INSPIRE with a focus on technical aspects.

The [official web site of INSPIRE](#) is maintained by the European Commission.

Topics

- 6.1 Background and Motivation
 - 6.1.1 Spatial Data Infrastructures
 - 6.1.2 Requirements for a European SDI
 - 6.1.3 Existing foundation for a European SDI
- 6.2 Overview and Context
 - 6.2.1 Background and history
 - 6.2.2 The five components of the Directive
 - 6.2.3 Implementation, status and schedule
 - 6.2.4 Groups and responsibilities within INSPIRE
 - 6.2.5 INSPIRE Implementing Rules and INSPIRE Guidance Documents
 - 6.2.6 European and Global initiatives in the context of INSPIRE
- 6.3 Technical Architecture Overview
 - 6.3.1 Relationship between the different components, in particular spatial data, metadata, registers, and network services
 - 6.3.2 Terminology
- 6.4 Interoperability of spatial data sets / INSPIRE data specifications
 - 6.4.1 Requirements of the INSPIRE Directive
 - 6.4.2 Interoperability of spatial data
 - 6.4.3 INSPIRE data scope
 - 6.4.4 Modelling Framework
 - 6.4.5 Generic Conceptual Model
 - 6.4.6 ISO 19100 series of International Standards
 - 6.4.7 Rules for application schemas and feature catalogues
 - 6.4.8 Identifier Management
 - 6.4.9 Object referencing modelling
 - 6.4.10 Coordinate referencing
 - 6.4.11 Multi-lingual text and cultural adaptability
 - 6.4.12 Data quality
 - 6.4.13 Metadata for evaluation and use
 - 6.4.14 Multiple representations
 - 6.4.15 Consistency between data

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Geo-standards Wiki

This is also linked from the ISO/TC211 home page

http://geostandards.geonovum.nl/index.php/Main_Page