Implementation of ISO and OGC (INSPIRE) metadata standards

MEDARD - (FOSS) metadata editor
AQUARIUS - (FOSS) metadata catalogue

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(http://medard-opensource.eu) - (http://aquarius-opensource.eu)
Organizations for standardization

- ISO - International Organization for Standardization
- Since ISO has been funded in 1946 it published about 17,000 norms
- Geoinformation issues are held by the Technical Committee - ISO TC 211 „Geographic Information/Geomatics” (http://www.isotc211.org/)
Geoinformation standards

ISO - TC 211 (Geographic Information/Geomatics) 19100 series:

- 19115 - Geographic information - Metadata
- 19119 - Services
- 19136 - Geography Markup Language (GML) - with OGC cooperation
- 19139 - Metadata - Implementation Specification

OGC - GML, CSW 2.0.2, WMS 1.3.0 ...

developed branch standrads like GeoSciML
MEDARD - MEtaDAta StandaRD Editor

Basic features:
- Compliance with the latest required standards and INSPIRE implementing rules
- Works in network and local environment
- Network version - several available database engines
- Local version (desktop) - local database/file system
- Works with various metadata profiles: customized for Polish metadata profiles (national, PGI and branch profiles based on 19115) and INSPIRE profile
- Supports metadata import from existing repositories (can import XML files and export them to XHTML)
Hierarchical metadata structure
Enables searching, preview and viewing of metadata
Support of templates
Metadata dictionaries management (standard, like INSPIRE Dictionary and branch dictionaries, like GEMET)
Supports multilinguality of metadata (for EU languages)
Ergonomic and user-friendly interface (also in English)
Available database engines: Oracle, Oracle Berkeley DB, MS SQL Server, IBM DB2, PostgreSQL...

- Authorisation of metadata editing (in case of database usage)

- Gathering metadata directly from many data systems (cadastral registries, map servers metadata etc.)

- Viewing metadata in various profiles structures
Viewing and editing metadata in MEDARD

- Browsing, searching and editing metadata
- Extracting metadata
- GIS
- Changing metadata profile
- Applying metadata template
- Editing dictionaries
- Switching to data
- Validating metadata
- Editing metadata
- Browsing metadata versions
- Reader (from Actors)
- Editor (from Actors)

Kliknij, aby edytować style wzorca tekstu
Exporting and importing metadata in MEDARD

uc Importing and exporting metadata

- Editor
  - Importing metadata
  - Exporting metadata
    - Sending metadata to a metadata catalog
      - Validating metadata
        - Metadata catalog
          - (from Actors)

- (from Actors)

Kliknij, aby edytować style wzorca tekstu
Metadata administration in MEDARD

1. Super user
   - Editing metadata templates
   - Editing thesauruses

2. Administrator
   - Managing user privileges
   - Managing backups
   - Implementing new metadata profile

3. Programmer
   - Kliknij, aby edytować style wzorca tekstu
     - Drugi poziom
     - Trzeci poziom
     - Czwarty poziom
     - Piąty poziom
EDARD architecture

Diagram showing client-server architecture with layers:
- Client
- Browser
- Repository
- Tomcat
- Server
- Medard
- Database
- Filesystem

Text:
- Kliknij, aby edytować style wzorca tekstu
  - Drugi poziom
    - Trzeci poziom
      - Czwarty poziom
      - Piąty poziom
DARD distribution and services

- Distributed under AGPL licence v.3.0
- Technical support and maintenance provided
- Cooperation and consulting services for metadata creating process - also on-line service
- Metadata related training, workshops, etc. (including e-learning)
- Customizing metadata editor for specific client requirements
MEDARD interface

Document structure panel

Metadata hierarchy panel

Metadata values panel

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Drugi poziom

Trzeci poziom

Czwarty poziom

Piąty poziom
MEDARD interface
GeoSciML implementation
Various ways of bounding box definition
Metadata profiles

- INSPIRE profile
- Polish National Metadata Profile for Geoinformation (GUGiK - Head Office of Geodesy and Cartography)
- PGI Geological Metadata Profile (branch) - support for geological timescale (!)
Facilitate multiple document edition with common values
From local and remote template repositories
Medard is a Java technology (NetBeans) implementation, that ensures hardware/software independence of the application.

Tested on many platforms:
- Windows 2000
- Windows XP
- Windows Vista
- Windows 7
- UBUNTU
- Fedora Core 5
Aquarius web client
quarius web client

Search results

Catalog server: http://aquarius.ioo.pl/catalog

Search results

Dataset Title
Show on map
New resource
Download

Metadata found: 32
Displayed: 10 (from 1 to 10)
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Viewing with WMS (OpenLayers and GoogleMaps)
Licenses

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  - Possible dual licensing
- users manuals
  - Creative Commons licence
Muchas gracias

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