GeoNetwork Opensource

The geospatial metadata catalogue

FOSS4G2010 - Barcelona

Jeroen Ticheler

GEOCAT
Making The Geospatial Web Work

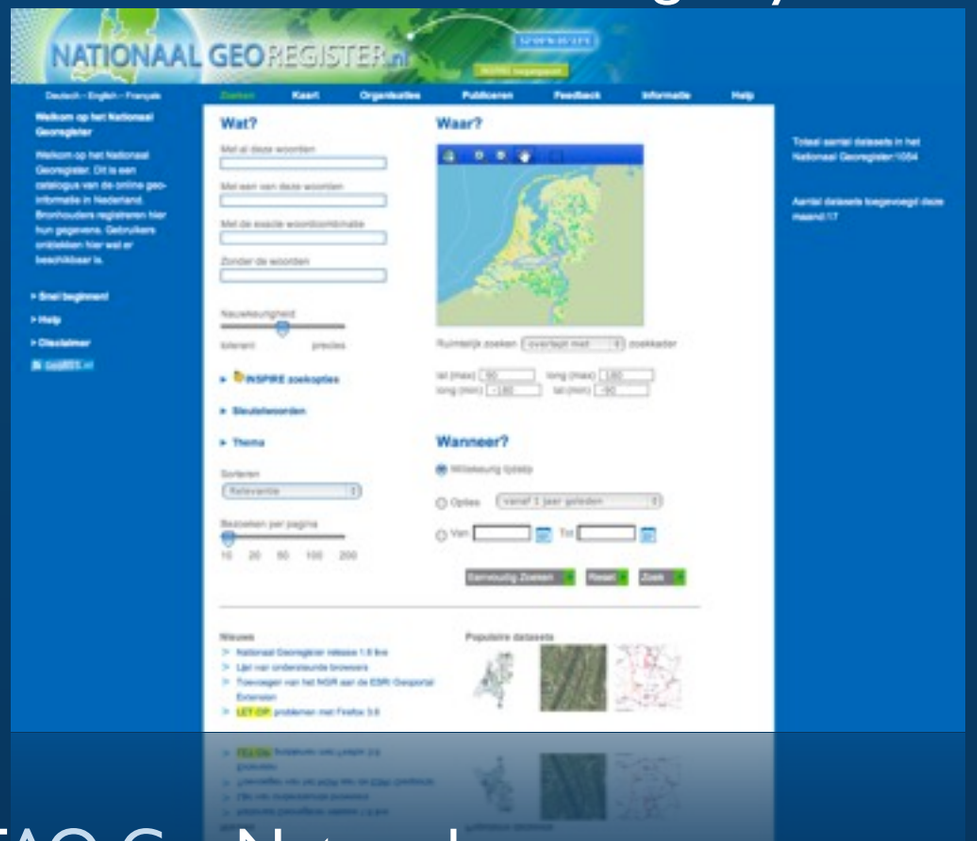
Director

GeoNetwork Opensource

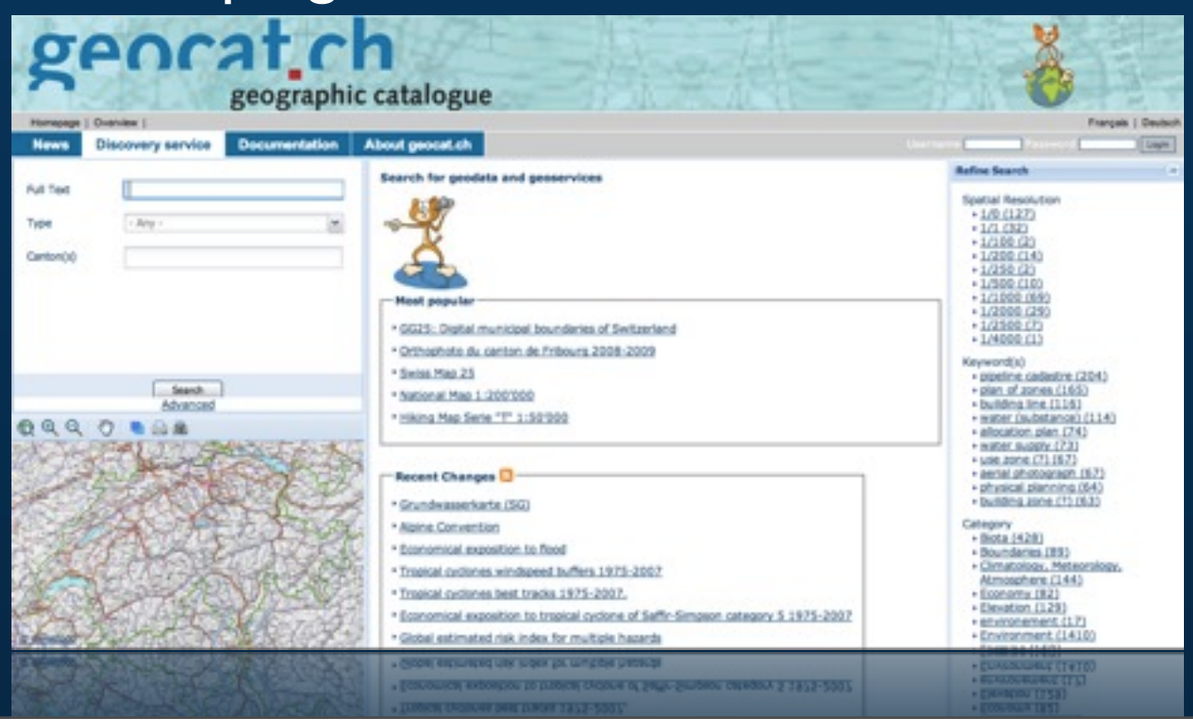
Founder and chair

GeoNetwork opensource

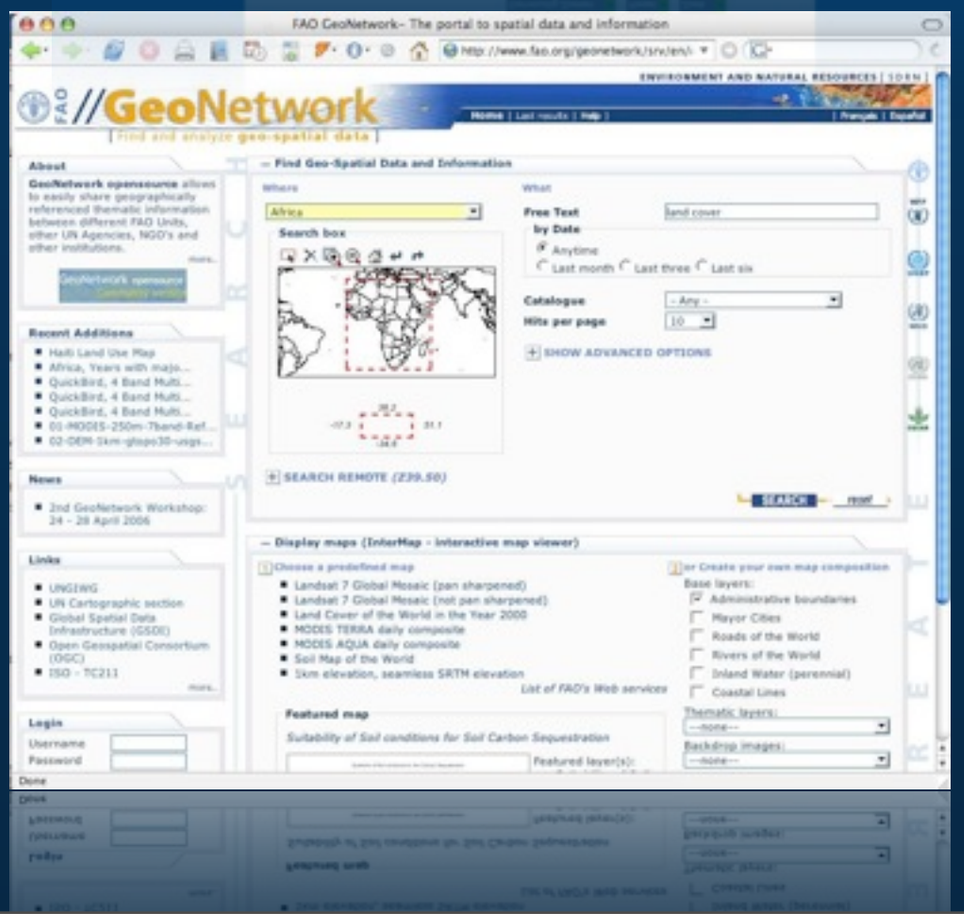
Dutch National Geo Registry



SwissTopo geocat.ch



FAO GeoNetwork



GeoNetwork history at a Glimpse

- Prototyping by FAO (2000-2001)
- Version 1 by FAO & WFP (released 2003)
- Version 2 by FAO, WFP & UNEP (released 2005)
- Version 2.1 (released September 2007)
- Version 2.2 (released April 2008)
- Version 2.4 (released July 2009)
- Version 2.6 (September 2010)
- Version 2.8 and 3.0 in progress (under development)

Users

- United Nations: FAO, WFP, UNEP, WHO, OCHA, UNHCR
- Other: FGDC, JRC, CGIAR
- Netherlands, Swiss, Norway, Denmark, Sweden, Finland, Spain, France, Czech, UK, Australia, South Africa, …
- ESA Heterogenous Mission Accessibility project
- Global Earth Observation System of Systems (GEOSS) GEOportal
- et cetera...

The glue in a Spatial Data Infrastructure

An interactive map library on the Internet

Build on Standards,

Standards, Standards, Standards, Standards, ...

The Basic Building Blocks

- ISO TC211 Standards
- OGC Standards
  (Open Geospatial Consortium)

Standards

Metadata

- ISO19115:2003, ISO19119:2005, ISO19139:2007, FGDC, Dublin Core

Catalog interfaces

- OGC CSW 2.0 (client & server)
- Z39.50/ISO23950 (client & server)
- OAI-PMH (client & server)
- Geo-OpenSearch (server)
- GeoRSS (server)
- WebDAV (client)

Web Mapping Client

- WMS, WMC

Web Map Server (through GeoServer)

- WMS, WFS, WFS-t, WCS, KML

OGC® Home | OGC Network™ | OGC User™ | OGC Forum

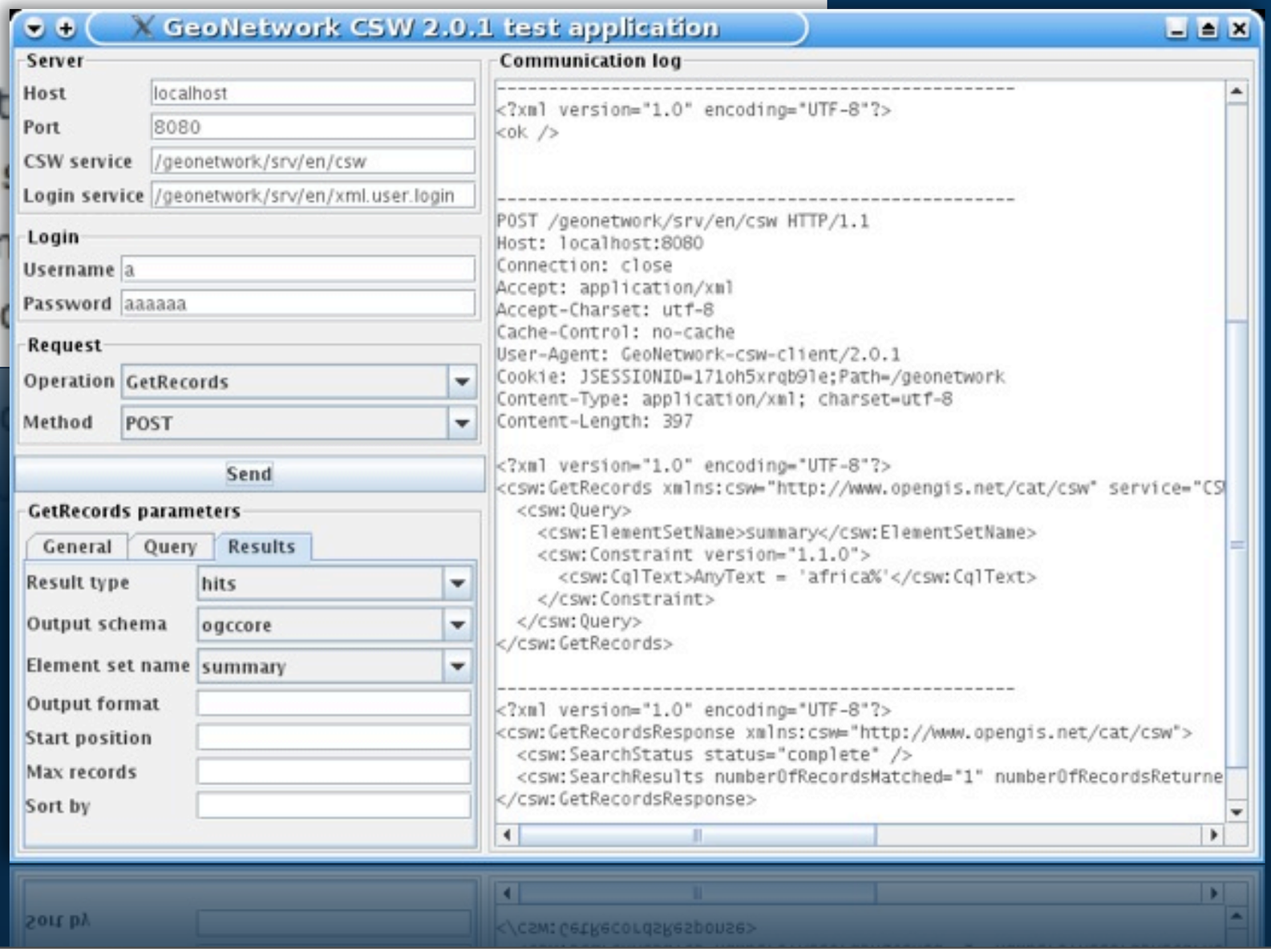
OGC® Open Geospatial Consortium, Inc.

Compliance and Interoperability Testing Initiative (CITE)

Catalogue Services/Web 2.0.1

- Developed by: United Nations Food and Agriculture Organization (UN FAO)
- Product Name: GeoNetwork
- License: GNU GPL

GeoNetwork opensource is a st
catalog application to manage
the web. It provides powerful
as well as an embedded interac



Catalog Interfaces

Technologies

- Java language (platform independent)
- Servlet environment (Tomcat, Jetty, ...)
- XML data representation (JDOM)
- XSL templates for presentation (XALAN)
- JDBC for database access (runs on any compliant DBMS)
- Lucene search capabilities
- XML Schema for metadata editing

Users

- Search in multiple catalogues through one website
- File download
- Data visualization through web map viewer

Data Providers

- Standardized process to document and publish
- Online metadata editor
- Different metadata standards
- Different sharing / security levels
- File upload

Administrators

- Easy to install
- Easy to maintain
- Groups and users management
- Harvesting management
- Migration support
- Active user and developer communities

Open Source Software Development & Community

GeoNetwork opensource

The Open Source Geospatial Foundation - osgeo.org

OSGeo
Your Open Source Compass

OSGeo Projects

Web Mapping
- deegree *
- Mapbender
- MapBuilder
- MapGuide Open Source
- MapServer *
- OpenLayers

Desktop Applications
- GRASS GIS
- OSSIM *
- Quantum GIS
- gvSIG *

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• • •

Geospatial Libraries
- FDO
- GDAL/OGR
- GEOS *
- GeoTools *

Metadata Catalog
- GeoNetwork

Other Projects
- Public Geospatial Data
- Education and Curriculum

(* in incubation)

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- GeoNetwork

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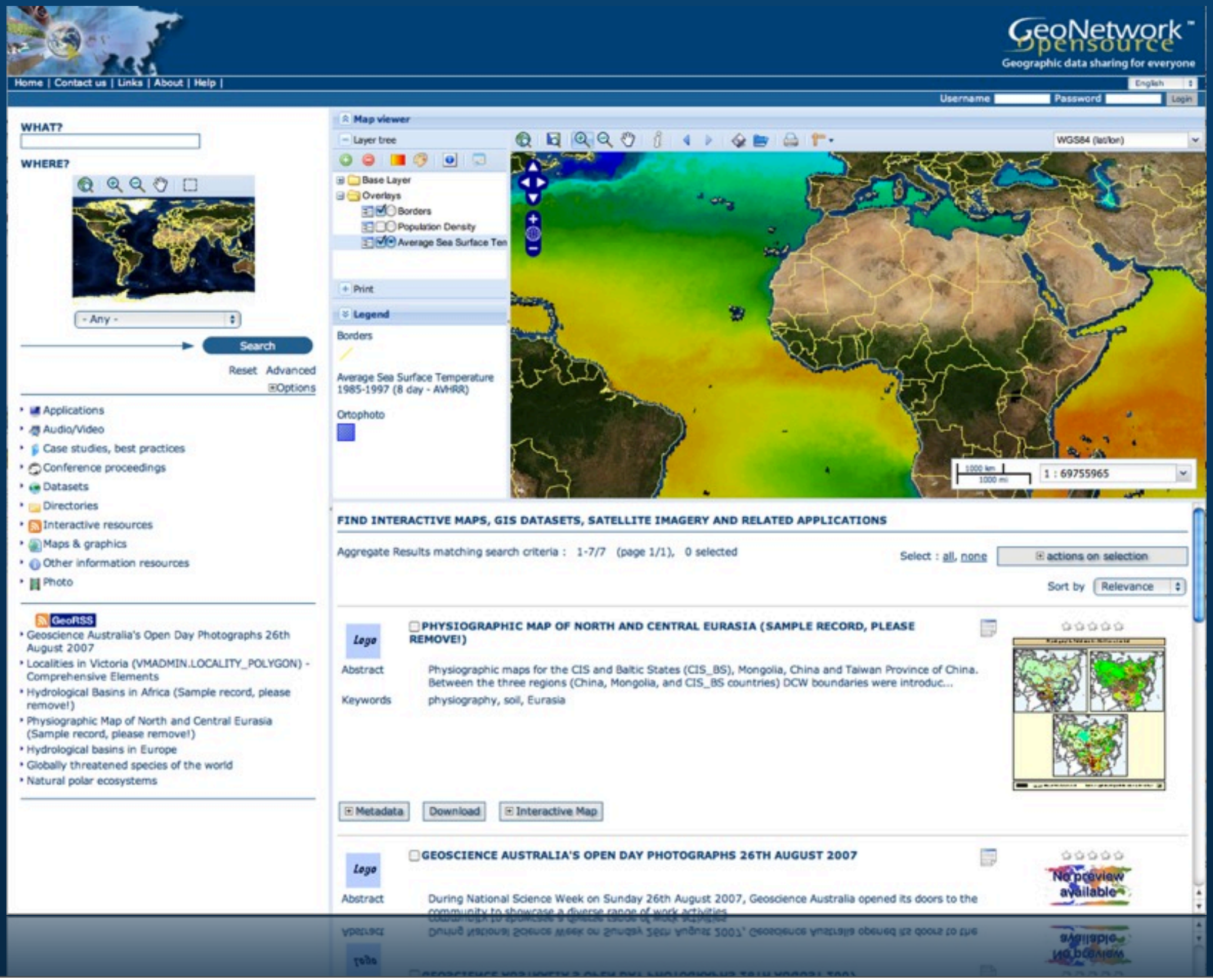
(* in incubation)

Formalized project governance

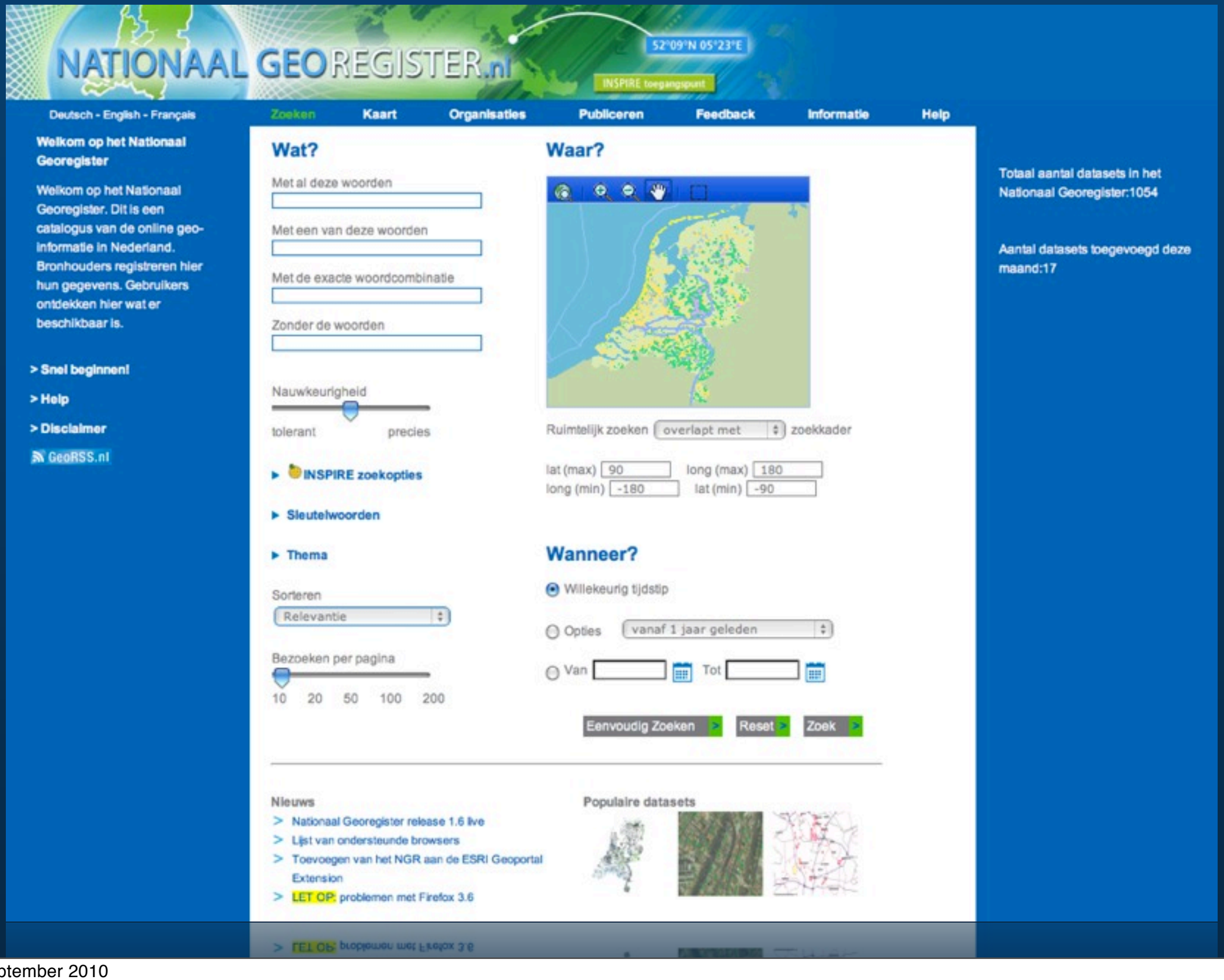
- Advisory Board
- Project Steering Committee (day-to-day)
- Proposals for new developments
- Release strategy

Some Screenshots

GeoNetwork v2.6



Dutch National Georegistry

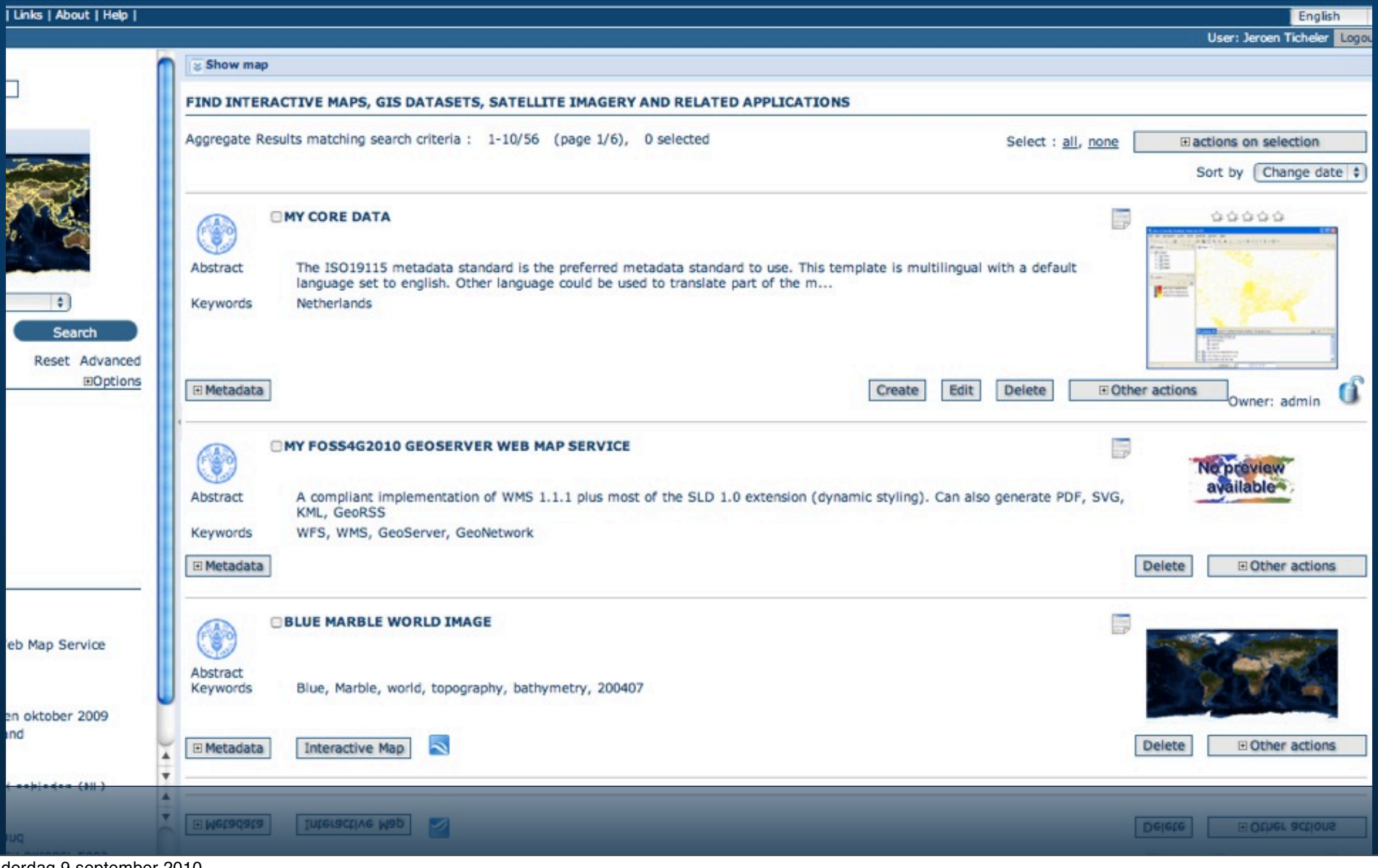


Dutch National georegistry nominated as government ICT-project of the year!

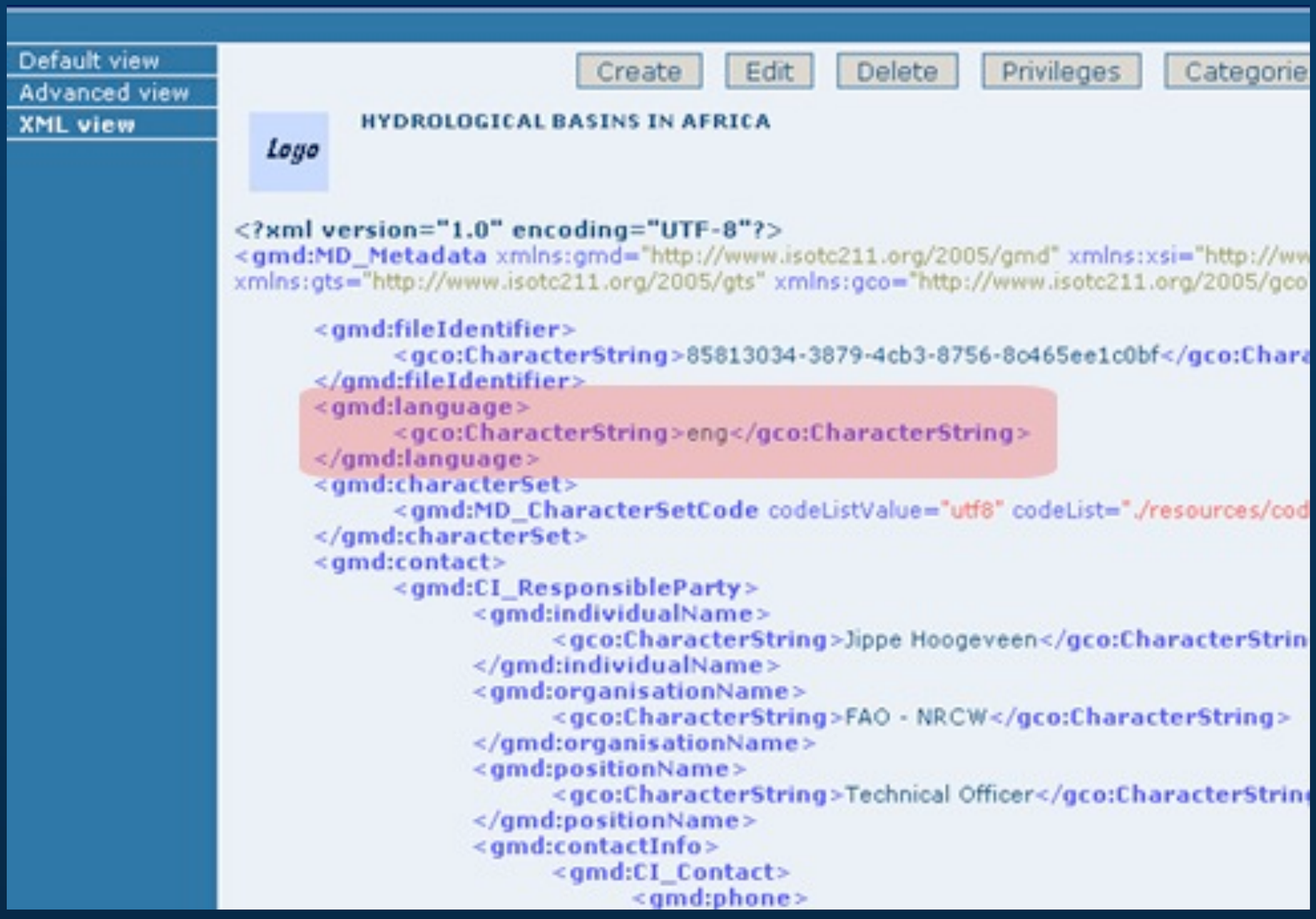
Please vote before 23 September 2010 at:

http://www2.computable.nl/computableawards/stem/

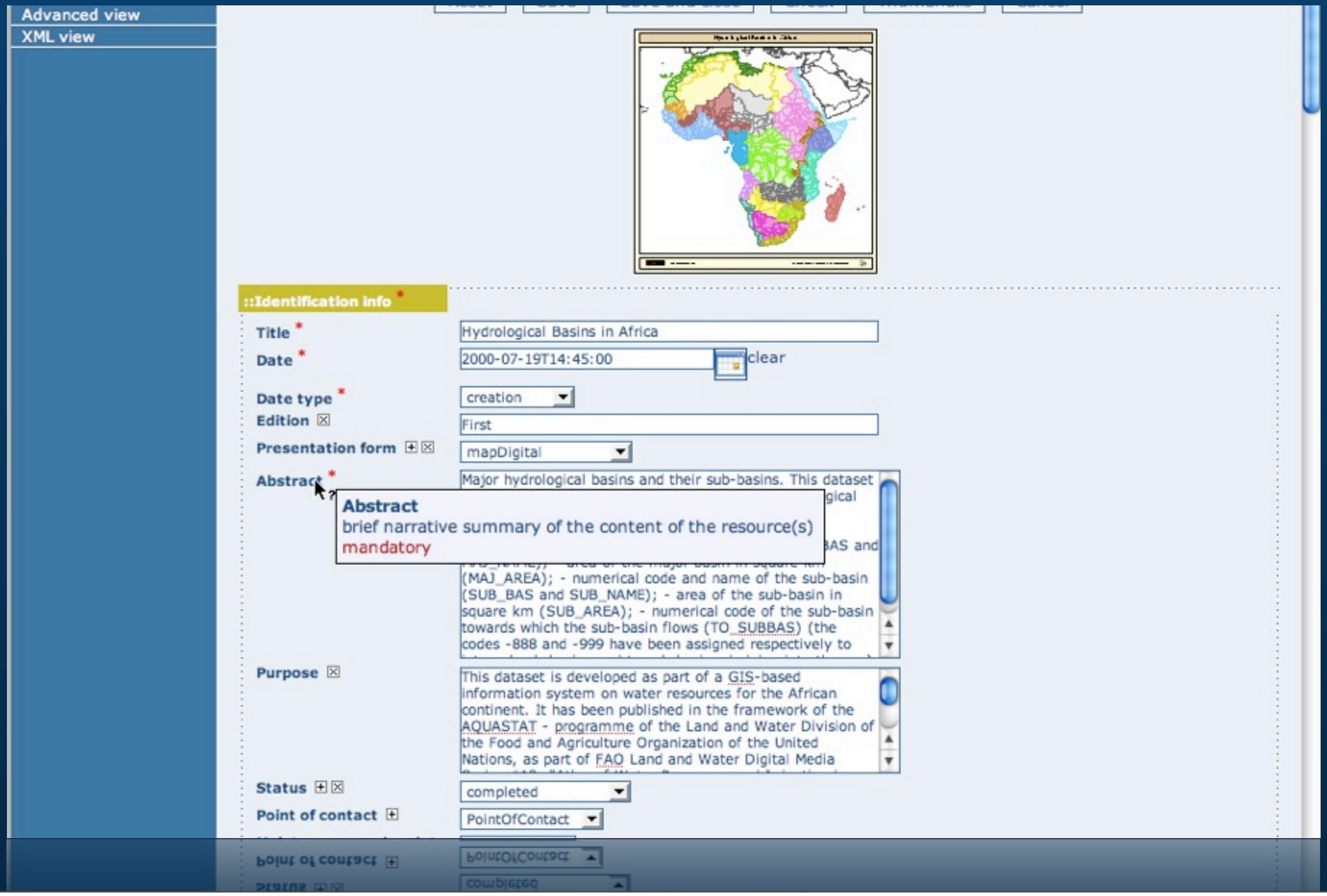
Search results



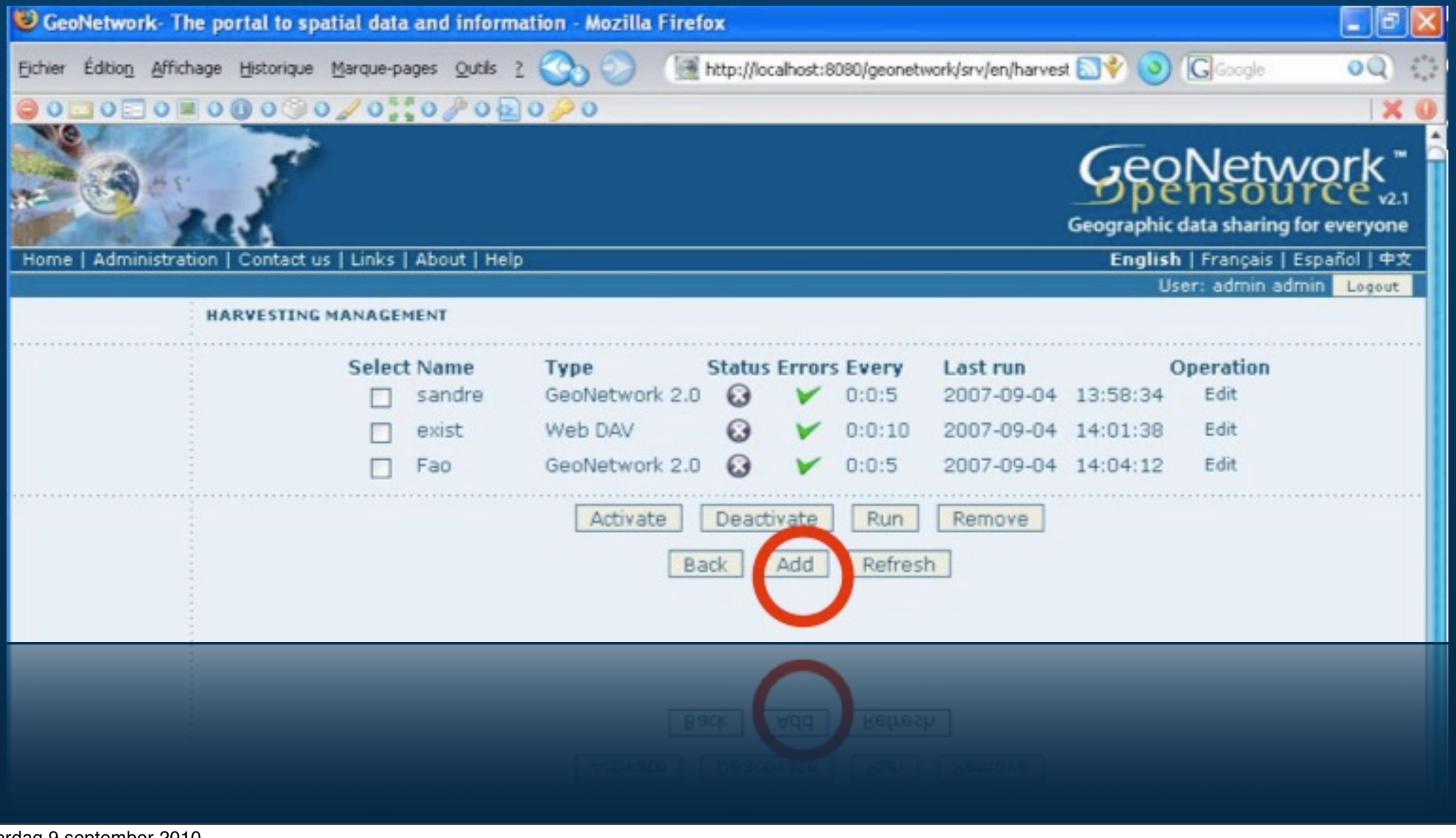
ISO19115:2003 with ISO19139:2007 encoding



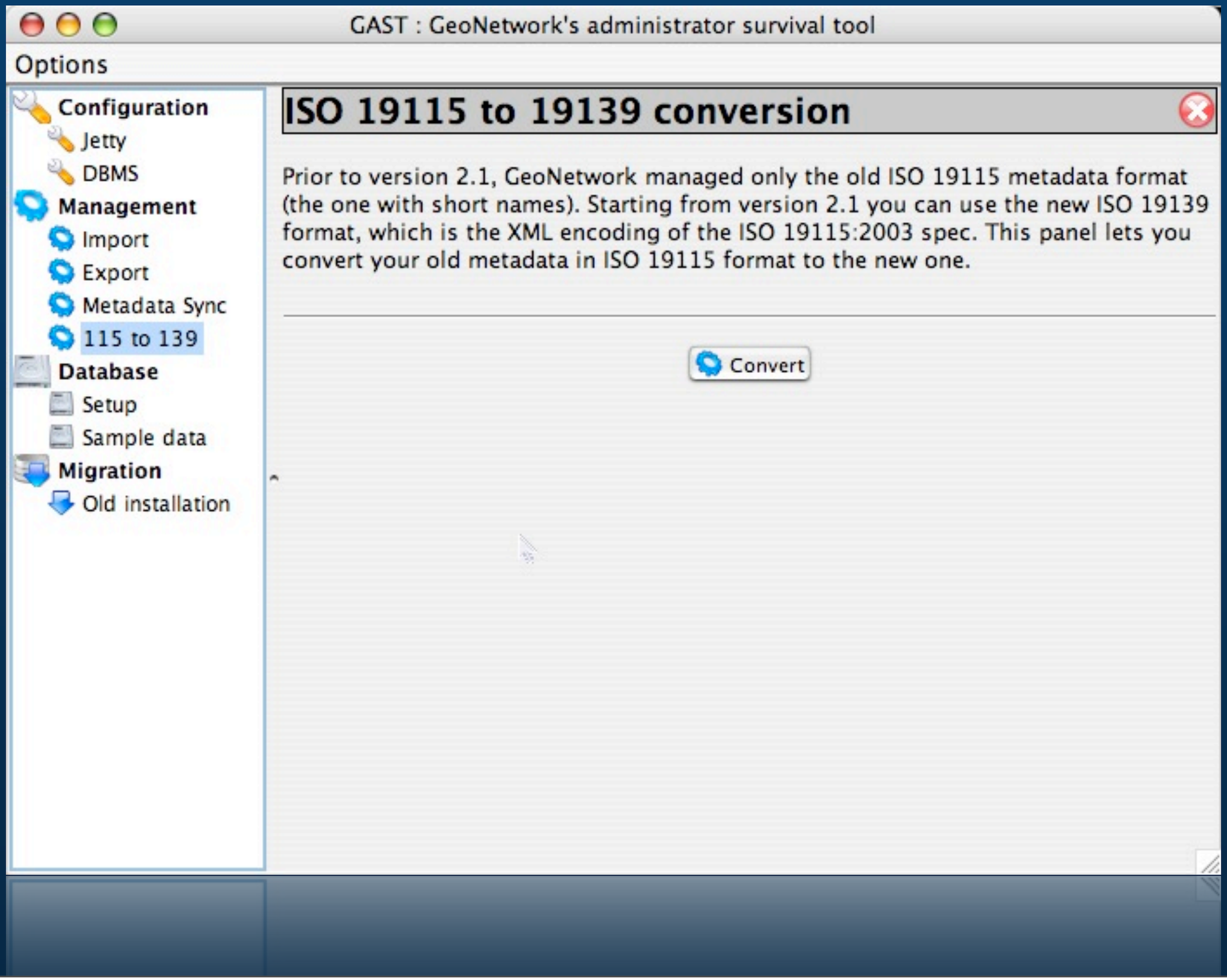
Online editor



Harvesting

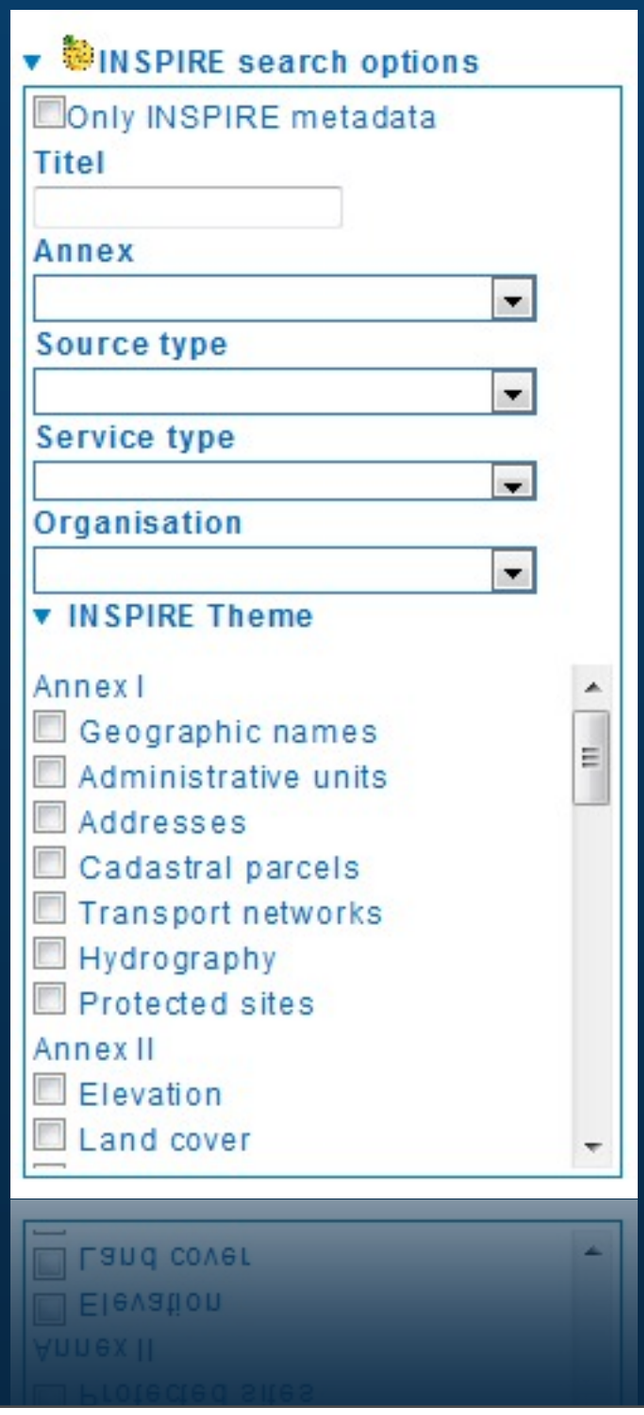

GeoNetwork- The portal to spatial data and information - Mozilla Firefox
Fichier Édition Affichage Historique Marque-pages Outils ?
http://localhost:8080/geonetwork/srv/en/harvest
Google
GeoNetwork Opensource v2.1
Geographic data sharing for everyone
Home | Administration | Contact us | Links | About | Help
English | Français | Español | 中文
User: admin admin
Logout
HARVESTING MANAGEMENT
Select Name Type Status Errors Every Last run Operation
sandre GeoNetwork 2.0 0:0:5 2007-09-04 13:58:34 Edit
exist Web DAV 0:0:10 2007-09-04 14:01:38 Edit
Fao GeoNetwork 2.0 0:0:5 2007-09-04 14:04:12 Edit
Activate
Deactivate
Run
Remove
Back
Add
Refresh

System Administration

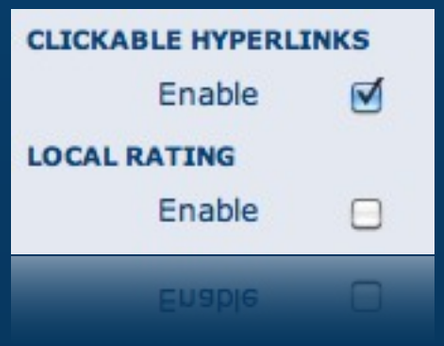


New in version 2.6

INSPIRE Search

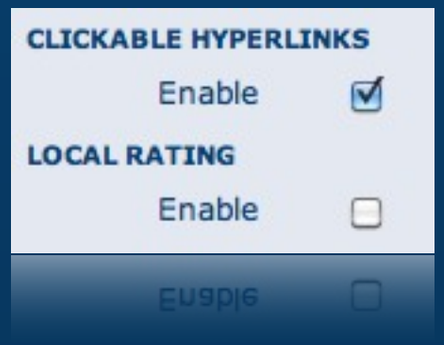


Hyperlinks

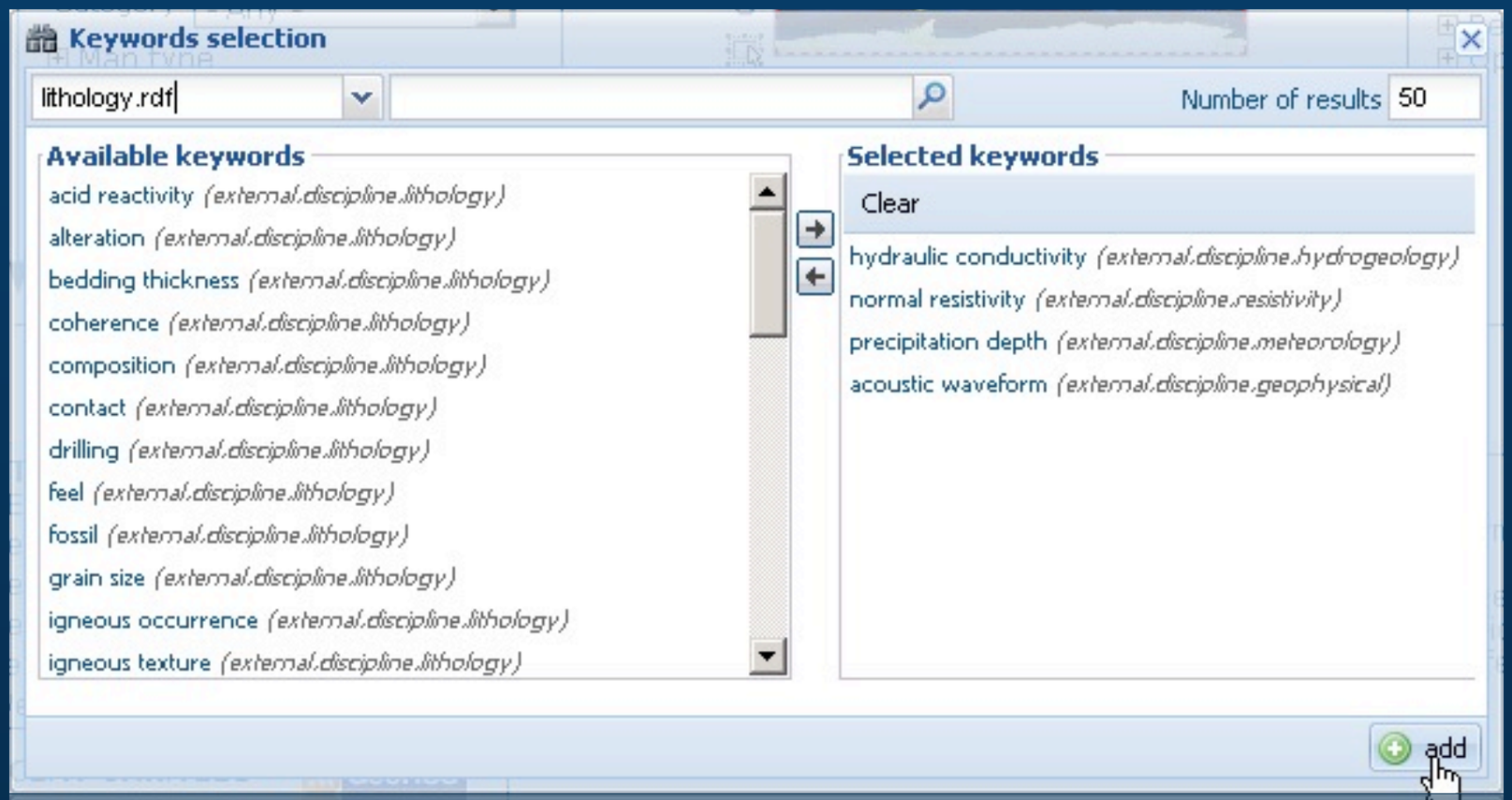

CLICKABLE HYPERLINKS
Enable
LOCAL RATING
Enable

Top10Vector, bij het interpreteren zijn luchtofoto's leidend. De gegevens zijn ingev
zomer van 2003. In 2007 en 2008 is dit het meest actuele bestand van het bodemg
begin van 2009 wordt het Bestand Bodemgebruik 2006 gepubliceerd.
Status
compleet
Contactgegevens voor de data
Organisatie
Centraal Bureau voor de Statistiek
Online bronnen
www.cbs.nl
Rol
maker
Voorbeeldweergave
Voorbeeld
bbg800bij800_s.png
omschrijving
thumbnail
bestand
Bestandstype
png
URLs recognized and made into links

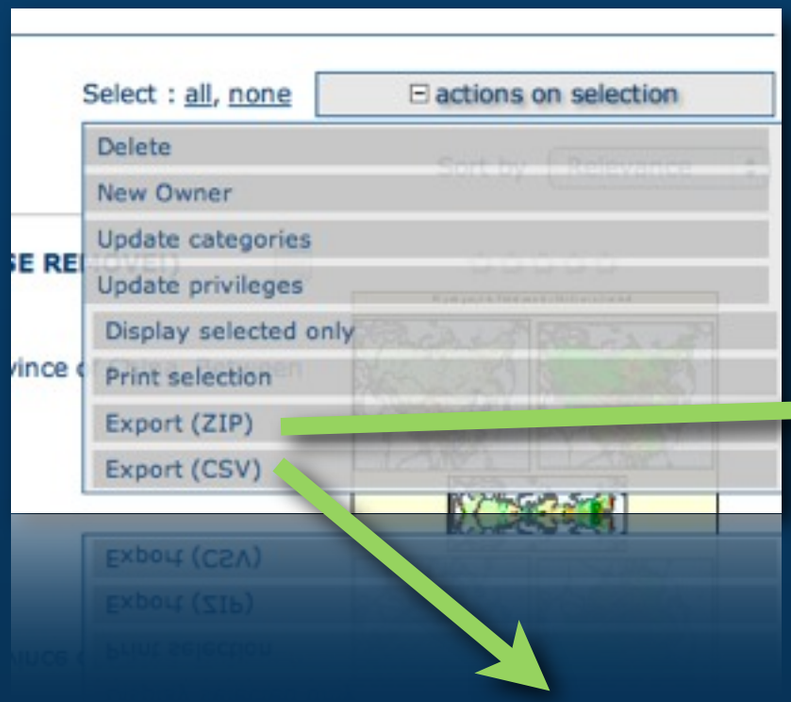
Local Rating



Keywords selection panel
(In Search and in Edit)

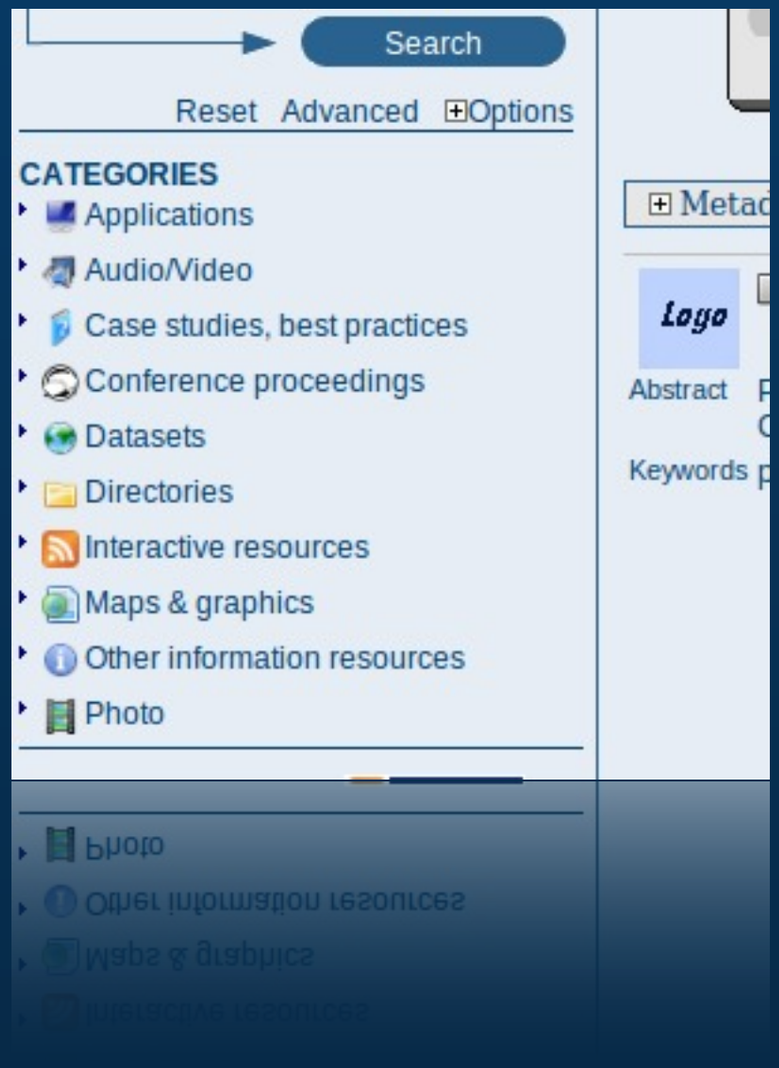


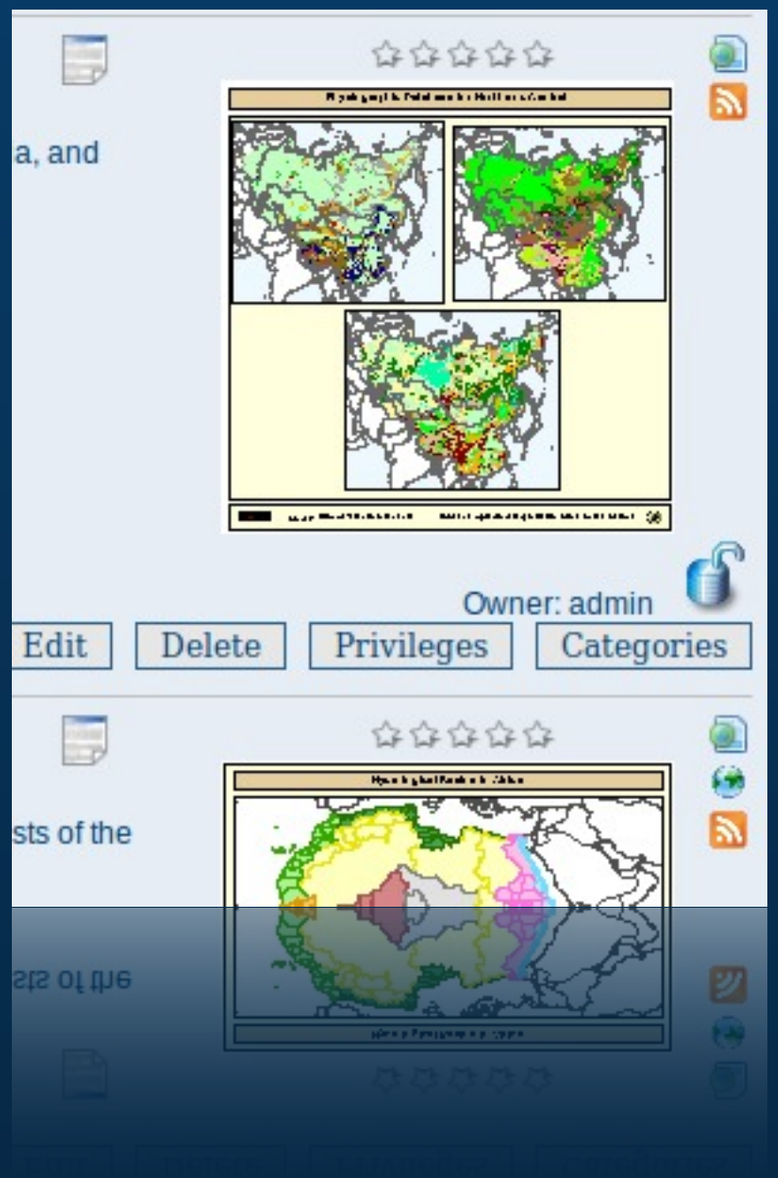
Export ZIP & CSV



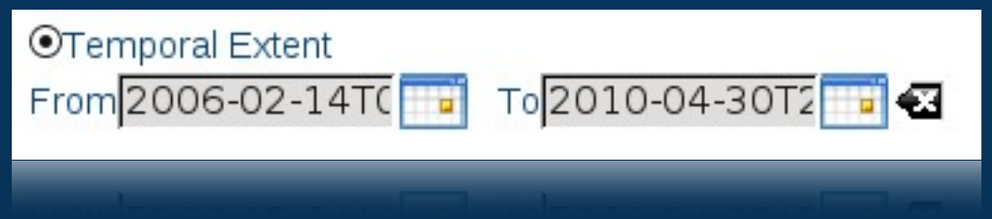
```
schema;id;title;abstract;keyword;geoBox;Constraints;image;link;
iso19139;10;Hydrological Basins in Africa (Sample record, please remove!);Major hydrological basins and their sub-
iso19139;14;Physiographic Map of North and Central Eurasia (Sample record, please remove!);Physiographic maps for
iso19139;16;Template for WMS in INSPIRE mode;The ISO19139/119 metadata standard is the preferred metadata standard
iso19139;15;Template for INSPIRE;The ISO19115 metadata standard is the preferred metadata standard to use. If unsu
schema;id;title;abstract;keyword;geoBox;image;
iso19115;12;Hydrological basins in Europe;Major hydrological basins and their sub-basins. This dataset divides the
schema;id;title;abstract;keyword;link;geoBox;
fgdc-std;13;Globally threatened species of the world;Contains information on animals and plants threatened at the
schema;id;title;abstract;keyword;link;geoBox;
dublin-core;11;Natural polar ecosystems;A harmonised database of natural ecosystems in the Circumpolar Arctic, bas
```

Improved Categories

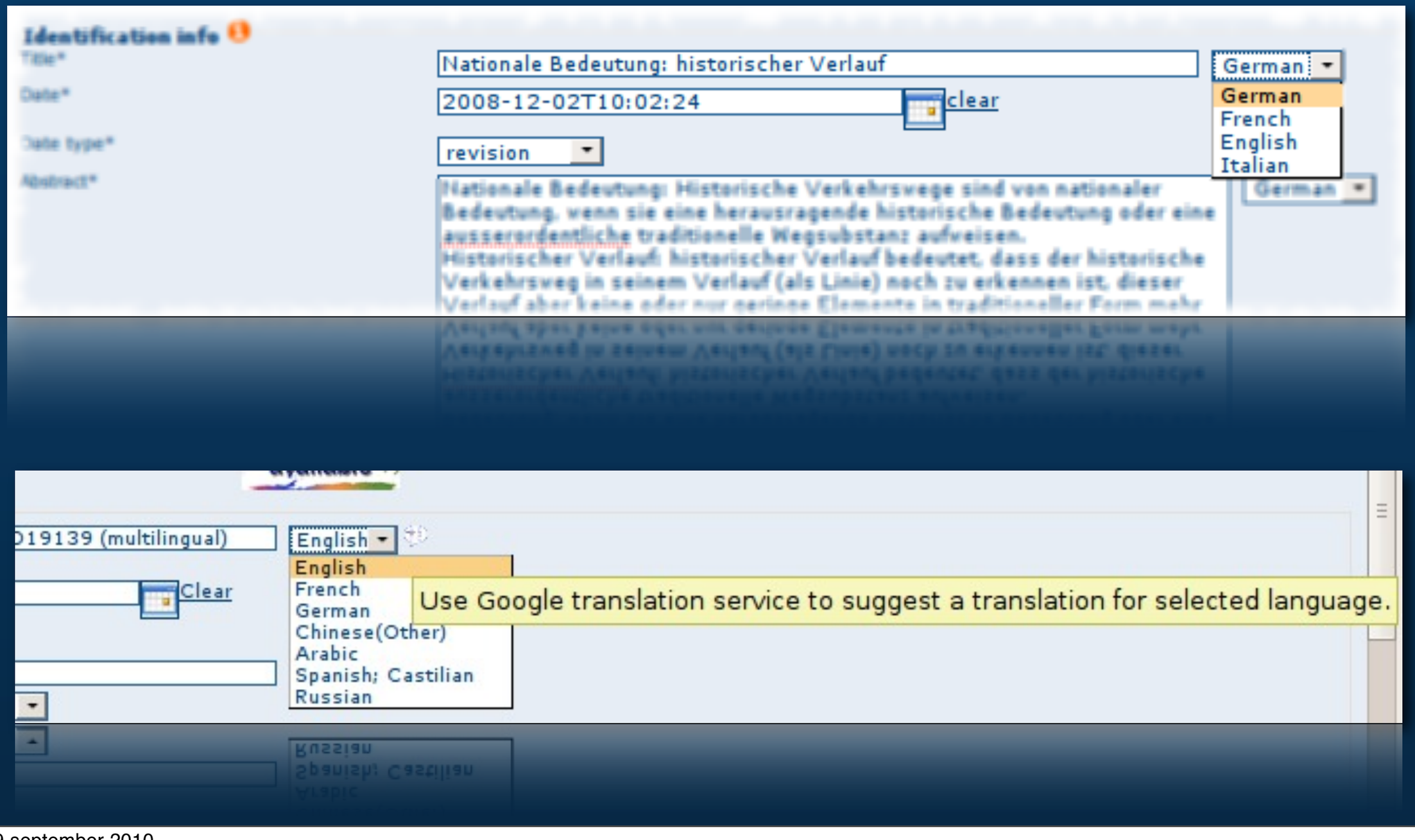




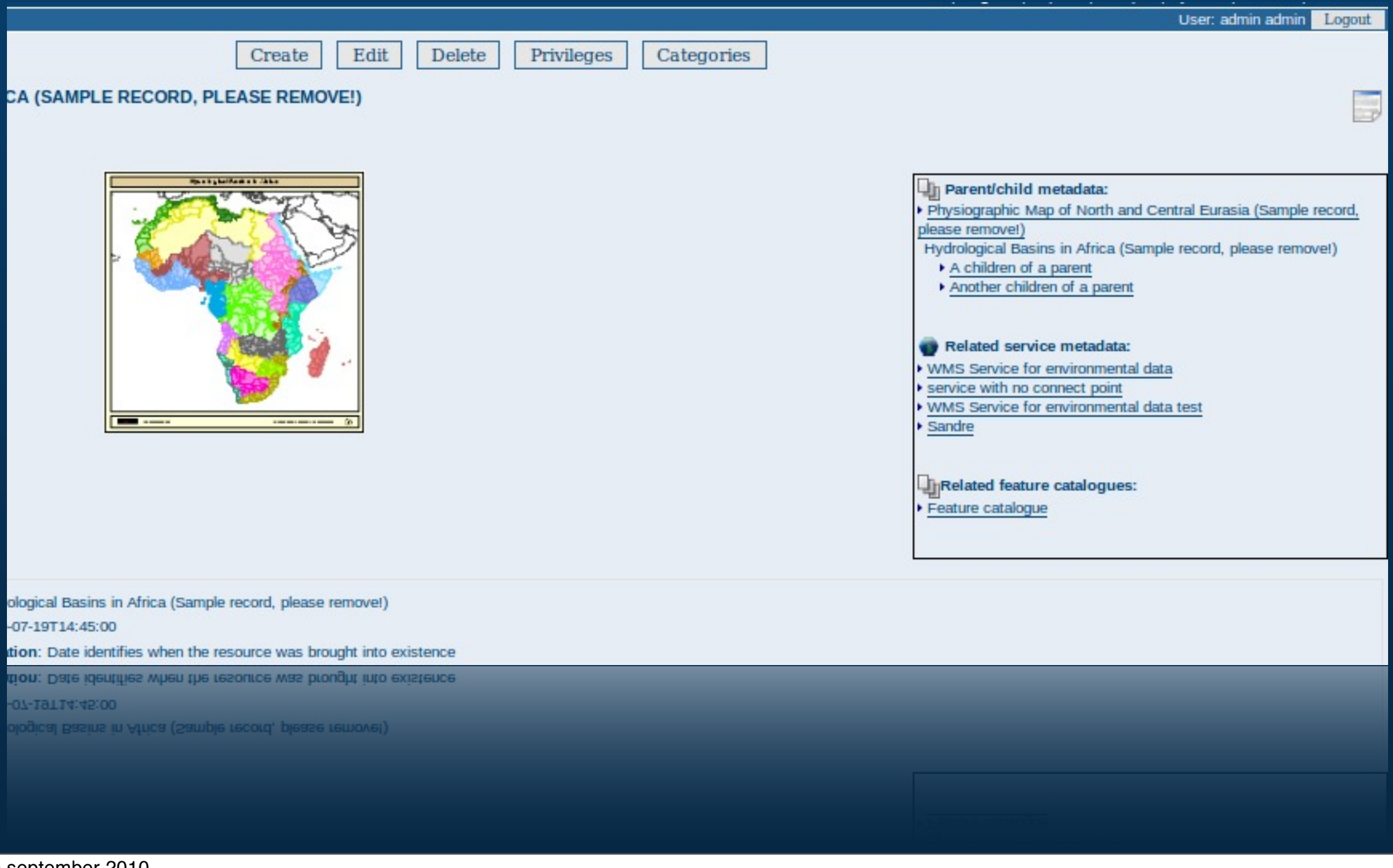
Temporal extent search



Multilingual metadata

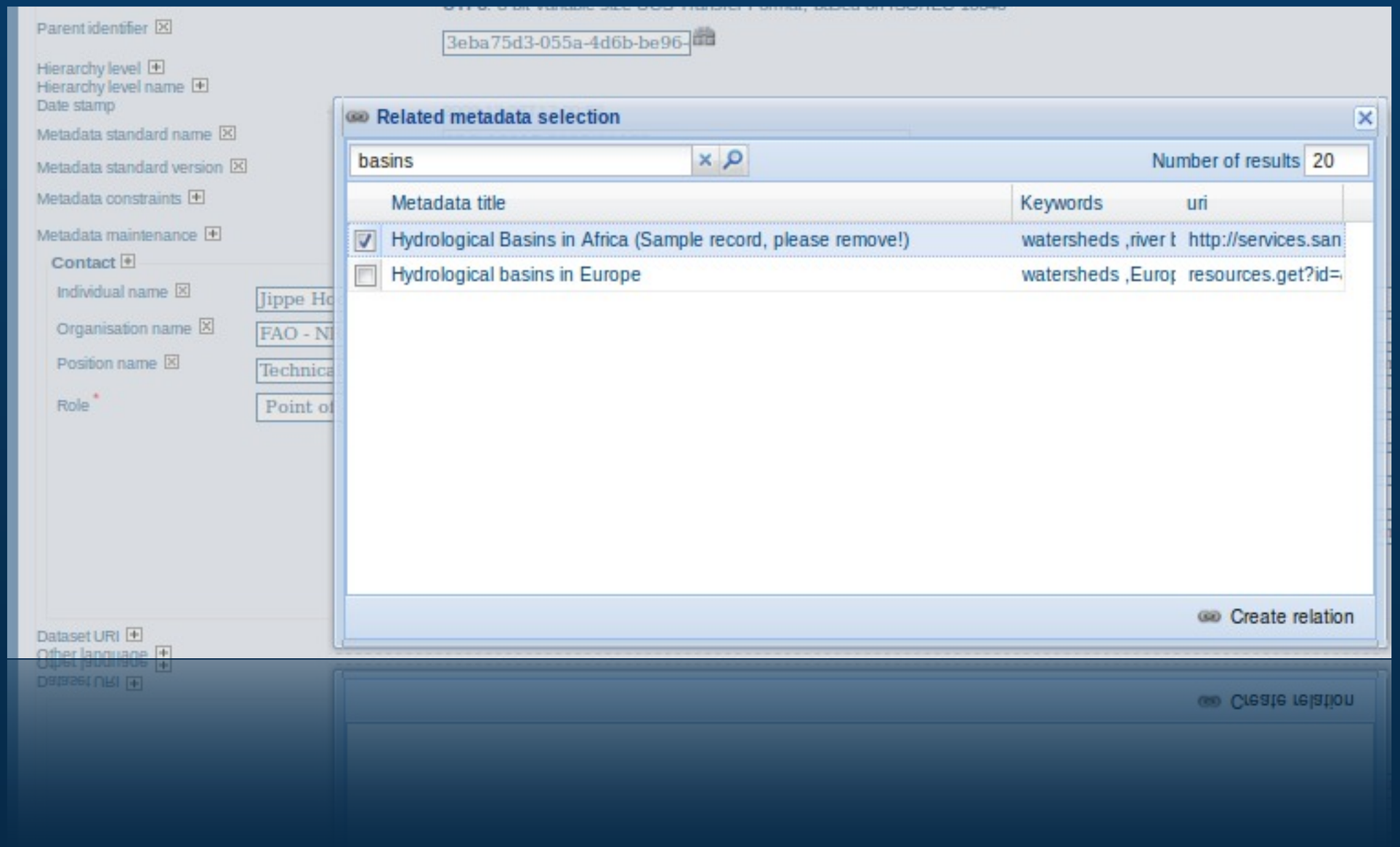


Metadata relations

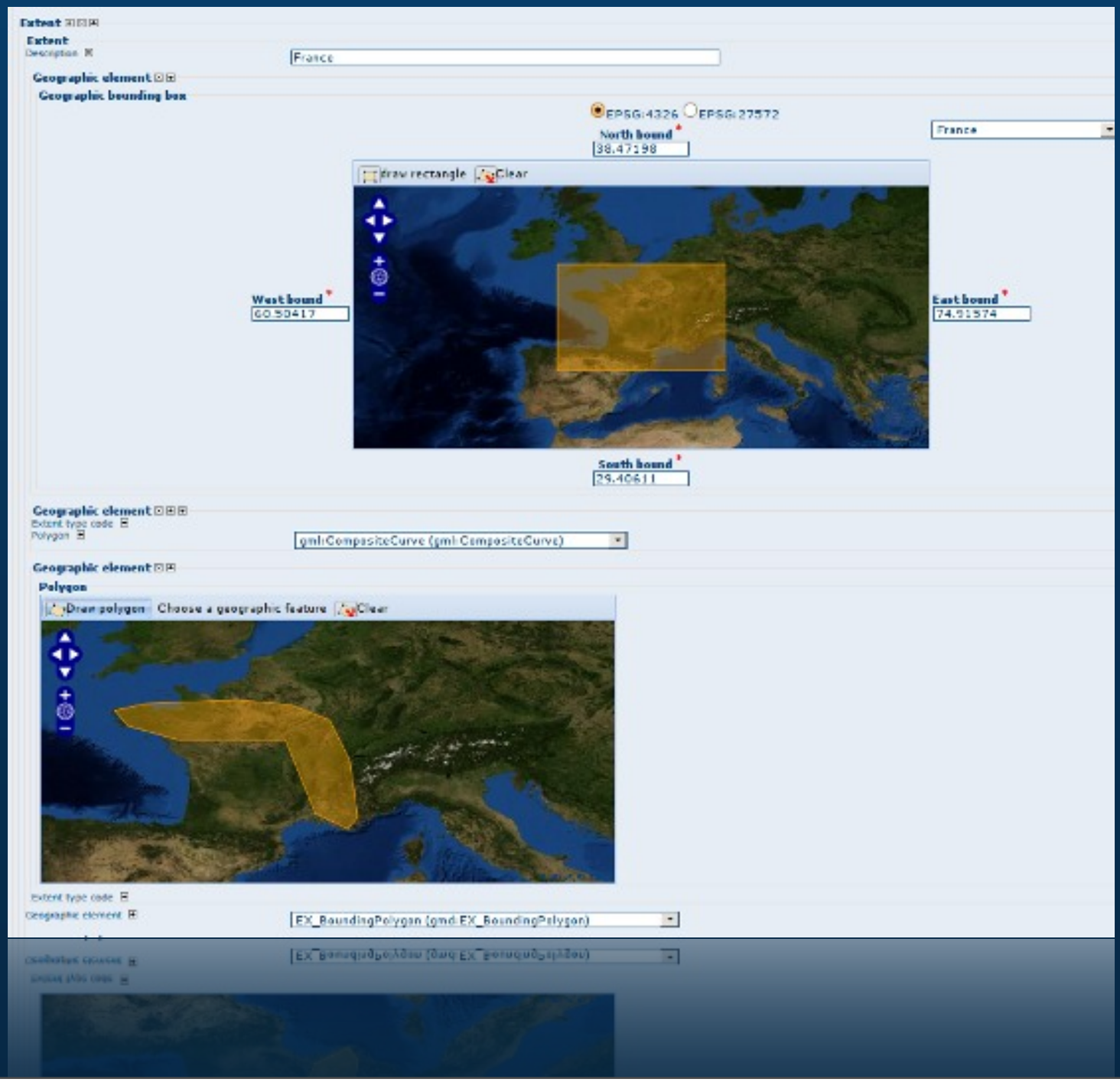


Metadata relations (Editing)

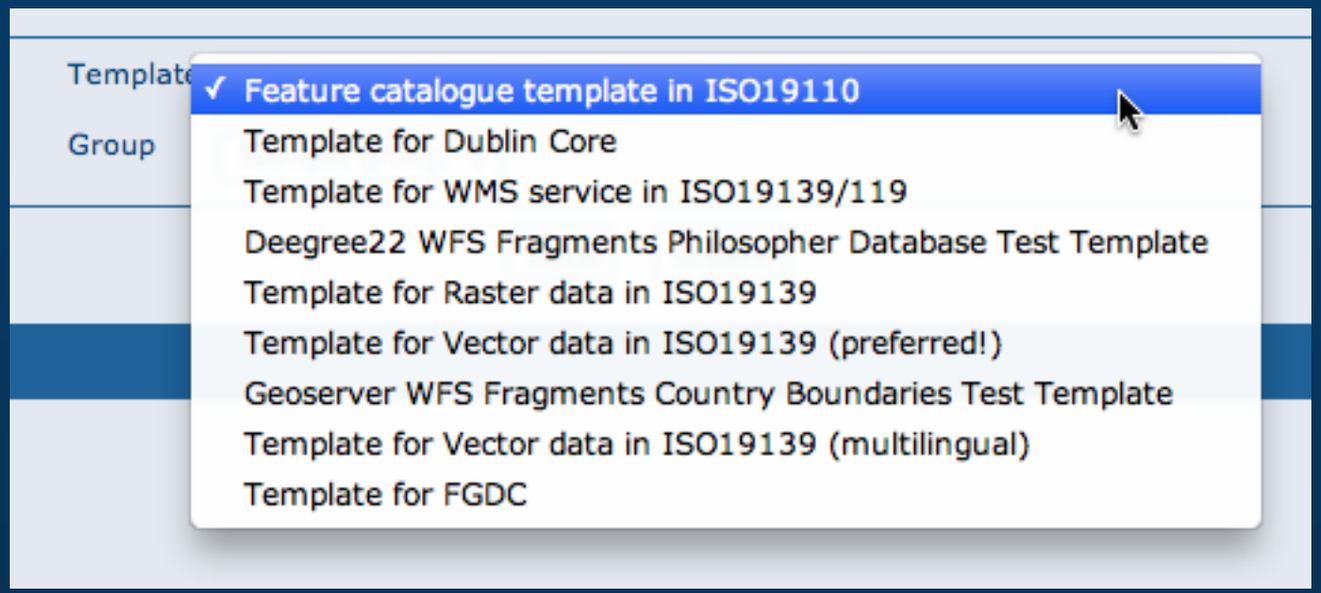
Metadata relations (Editing)



Edit/View Geographic Extent

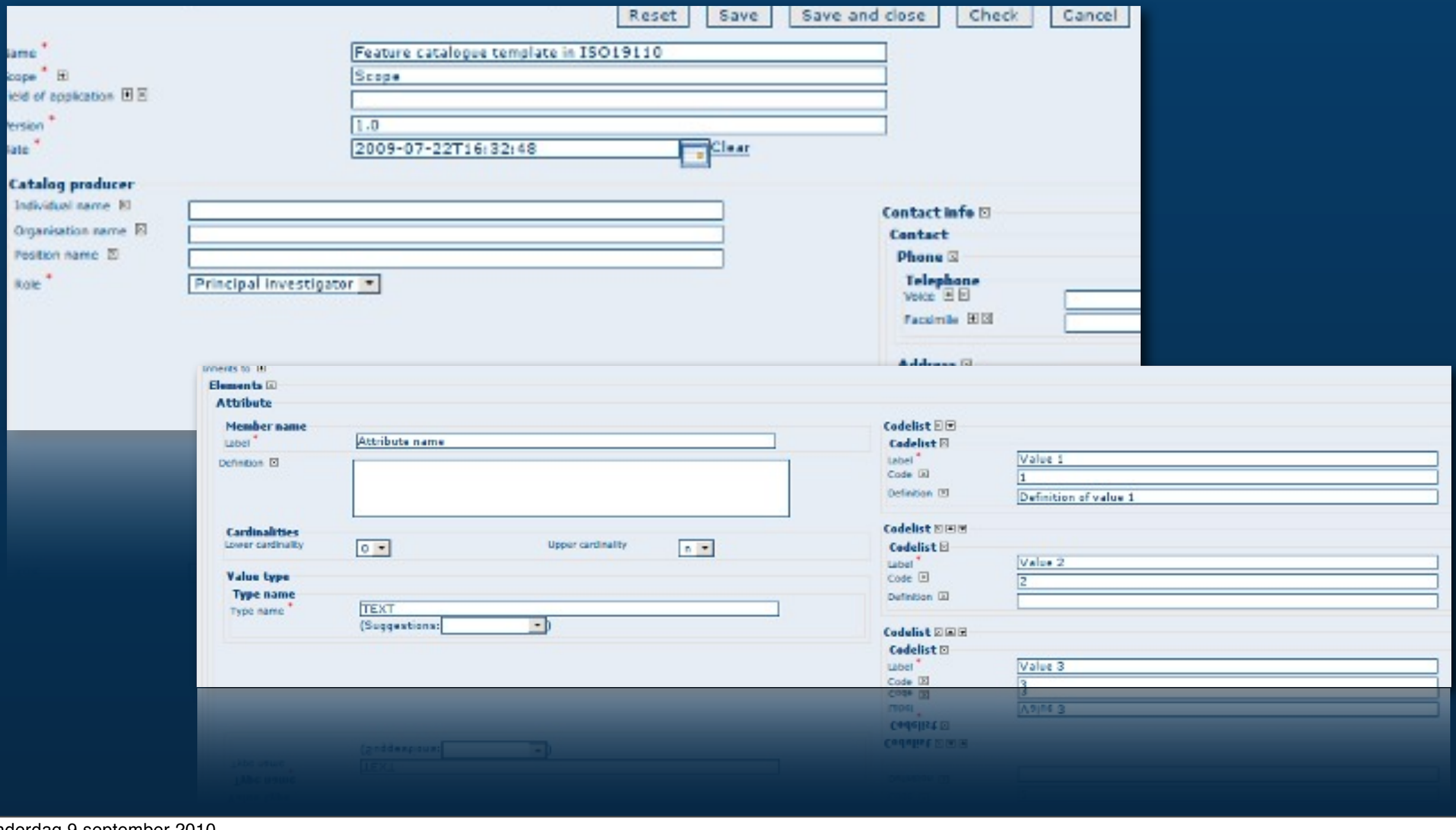


Feature catalog support (ISO19110)

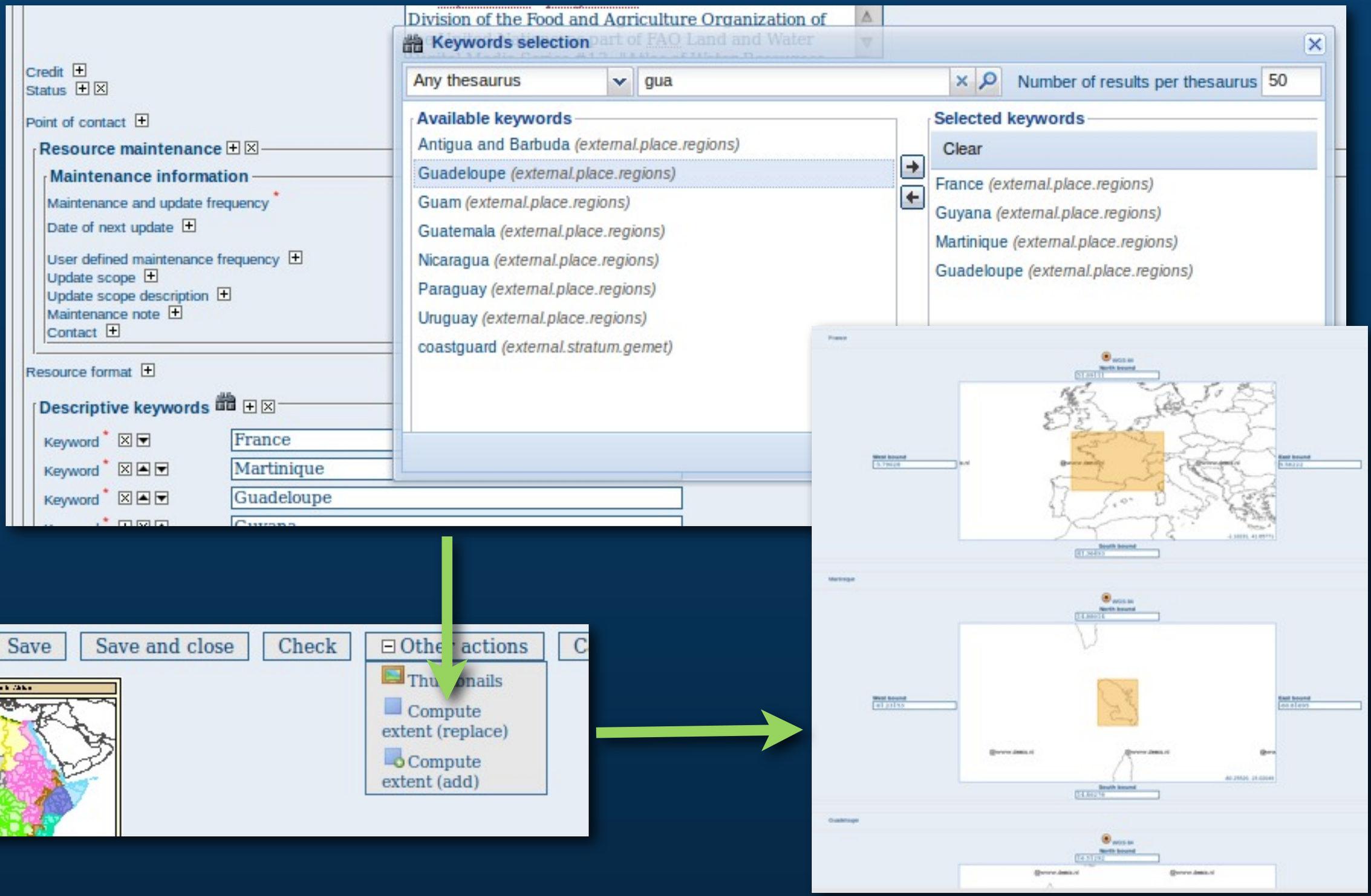


Sort your templates

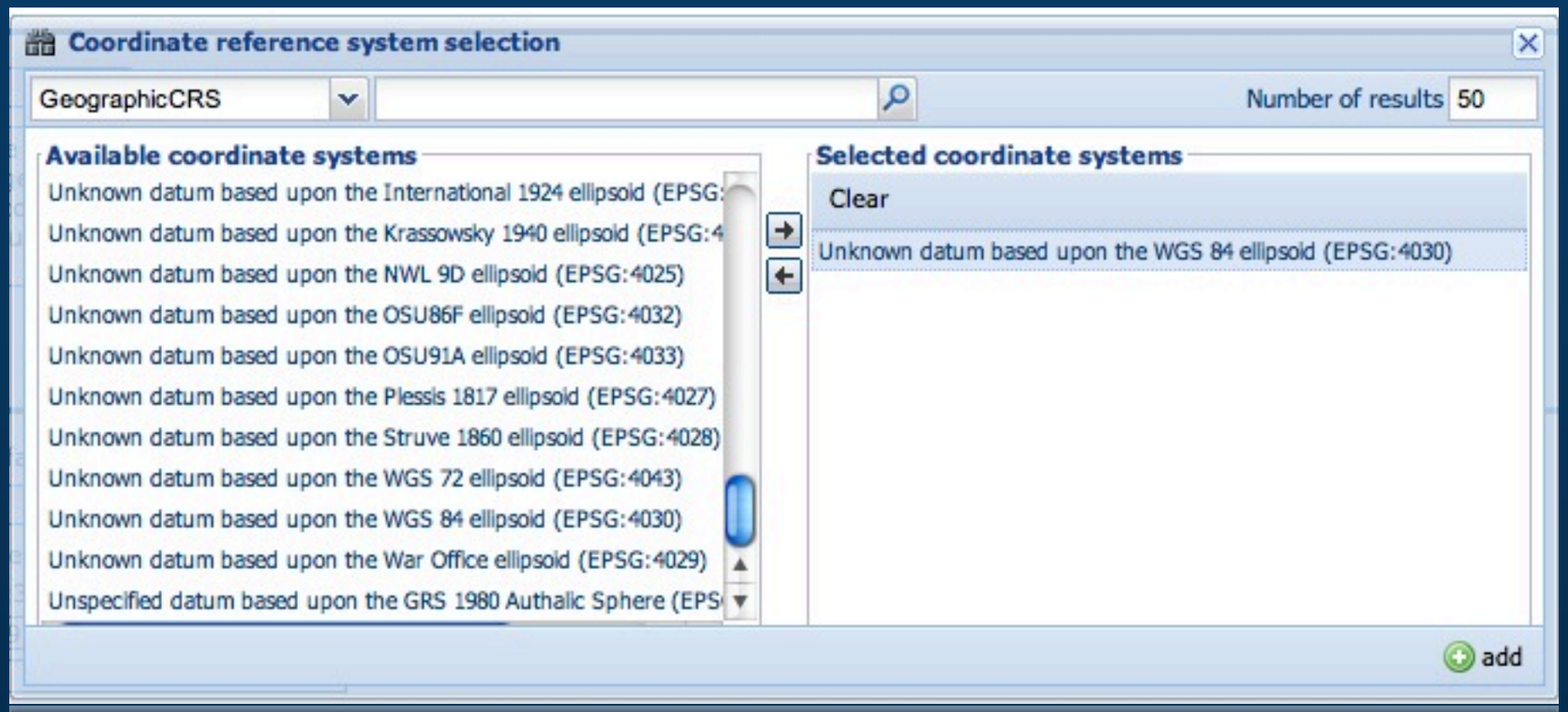
Feature catalog support (ISO19110)



Compute extent

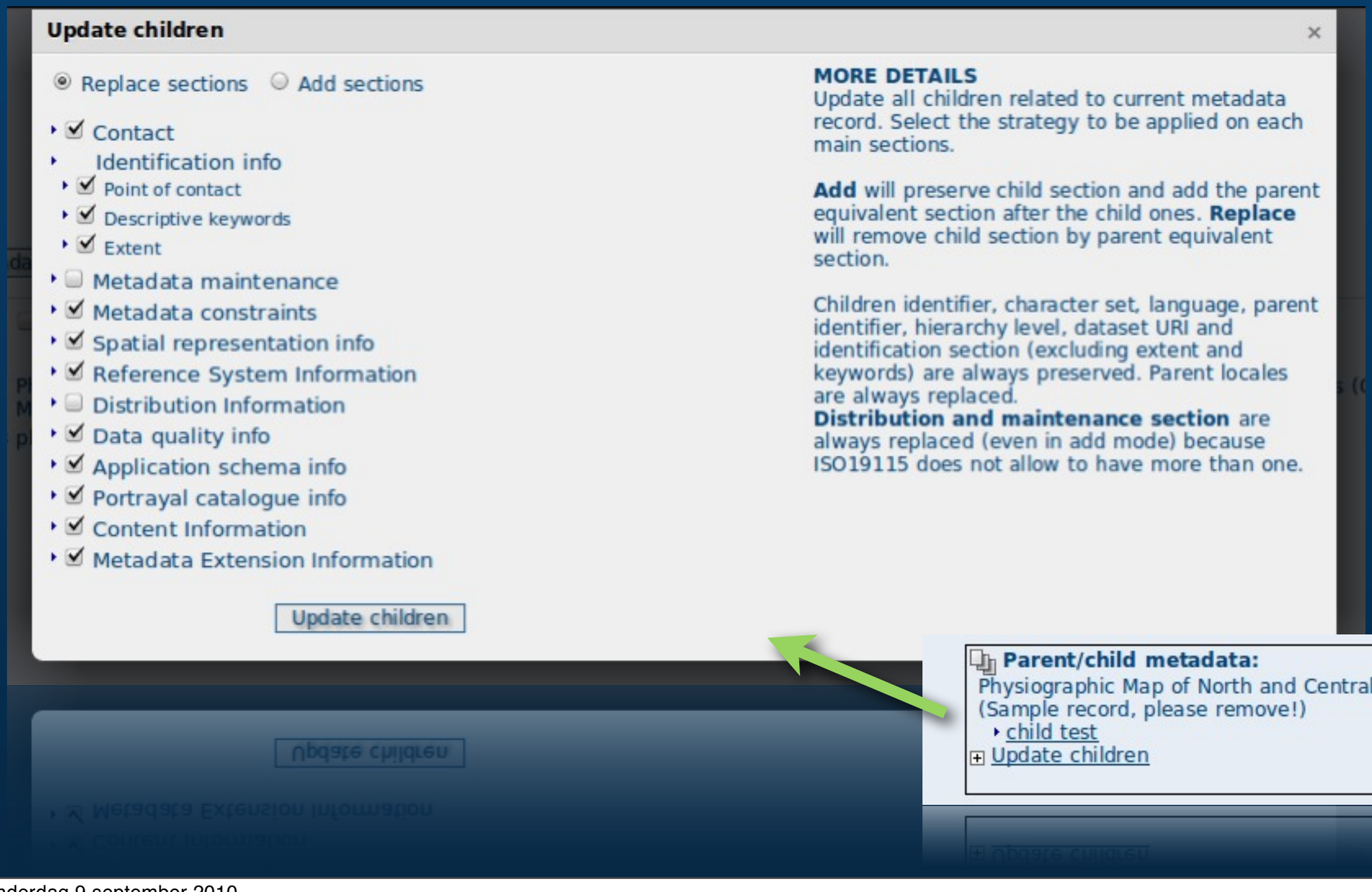


CRS system selection



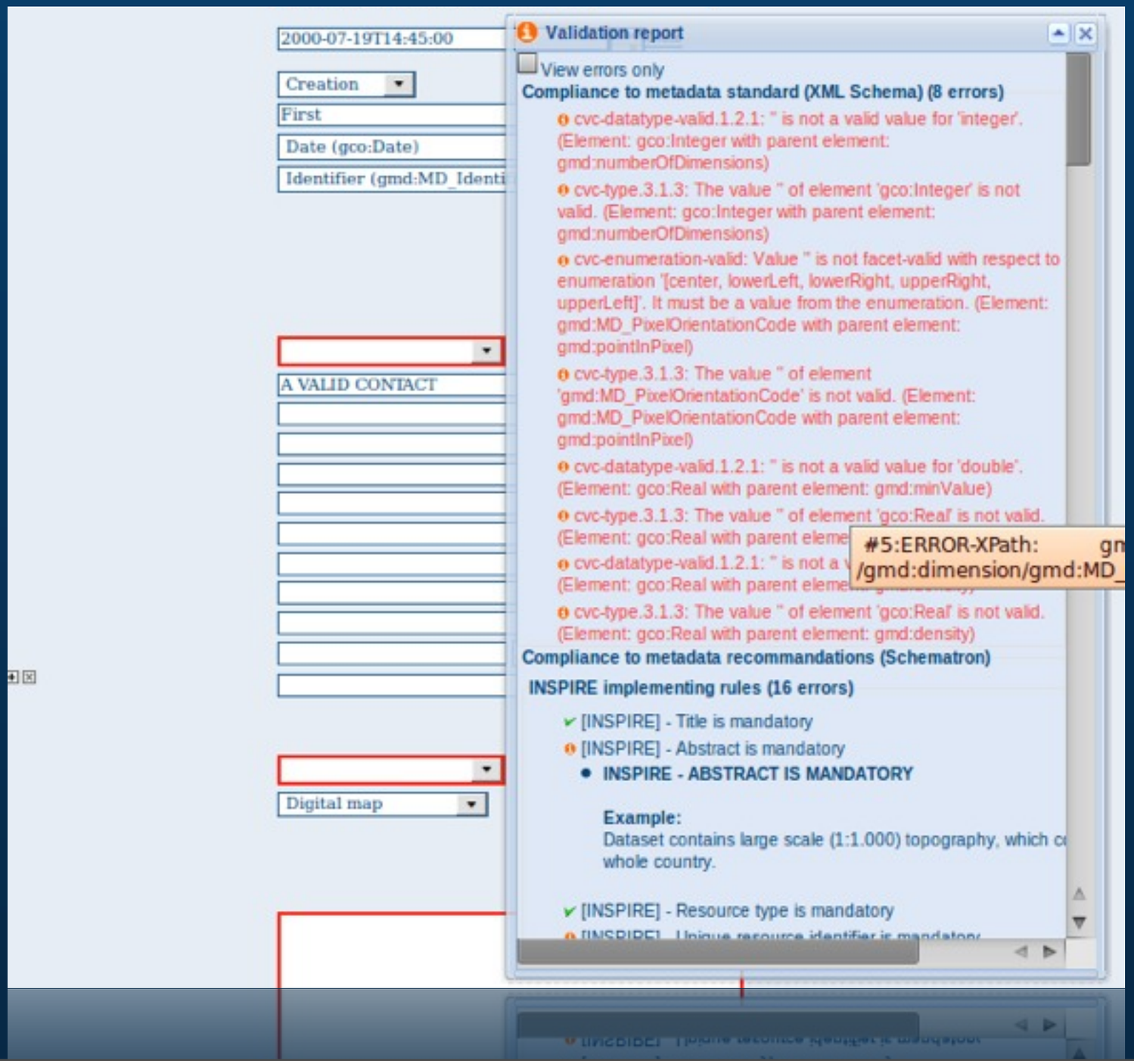
Visual warnings in the editor

Propagate changes to child records



INSPIRE view

Schematron validation report improvements



Other changes

- Performance improvements (on search and on indexing)
- CSW ISO AP automated testing
- MEF format support for multiple metadata
- Composed Metadata Records (using xlink)
- Z39.50 improvements

Other changes

- Maven build process
- Test automation
- Deployment through a war file

New documentation and website
(based on ReStructured text, thanks GeoServer!)

GeoNetwork Opensource

Search Documentation...

Documentation | Download | Community | Gallery | Development

GeoNetwork 2.6 Home

index

GeoNetwork opensource

GeoNetwork opensource is a catalog application to manage spatially referenced resources. It provides powerful metadata editing and search functions as well as an embedded interactive web map viewer.

GeoNetwork opensource has been developed to connect spatial information communities and their data using a modern architecture, which is at the same time powerful and low cost, based on the principles of Free and Open Source Software (FOSS) and International and Open Standards for services and protocols (a.o. from ISO/TC211 and OGC).

OSGeo Project

FOSS4G 2010 Barcelona
Free and Open Source Software for Geospatial CONFERENCE
SEP 6th-9th

Documentation | Download | Community | Gallery | Development

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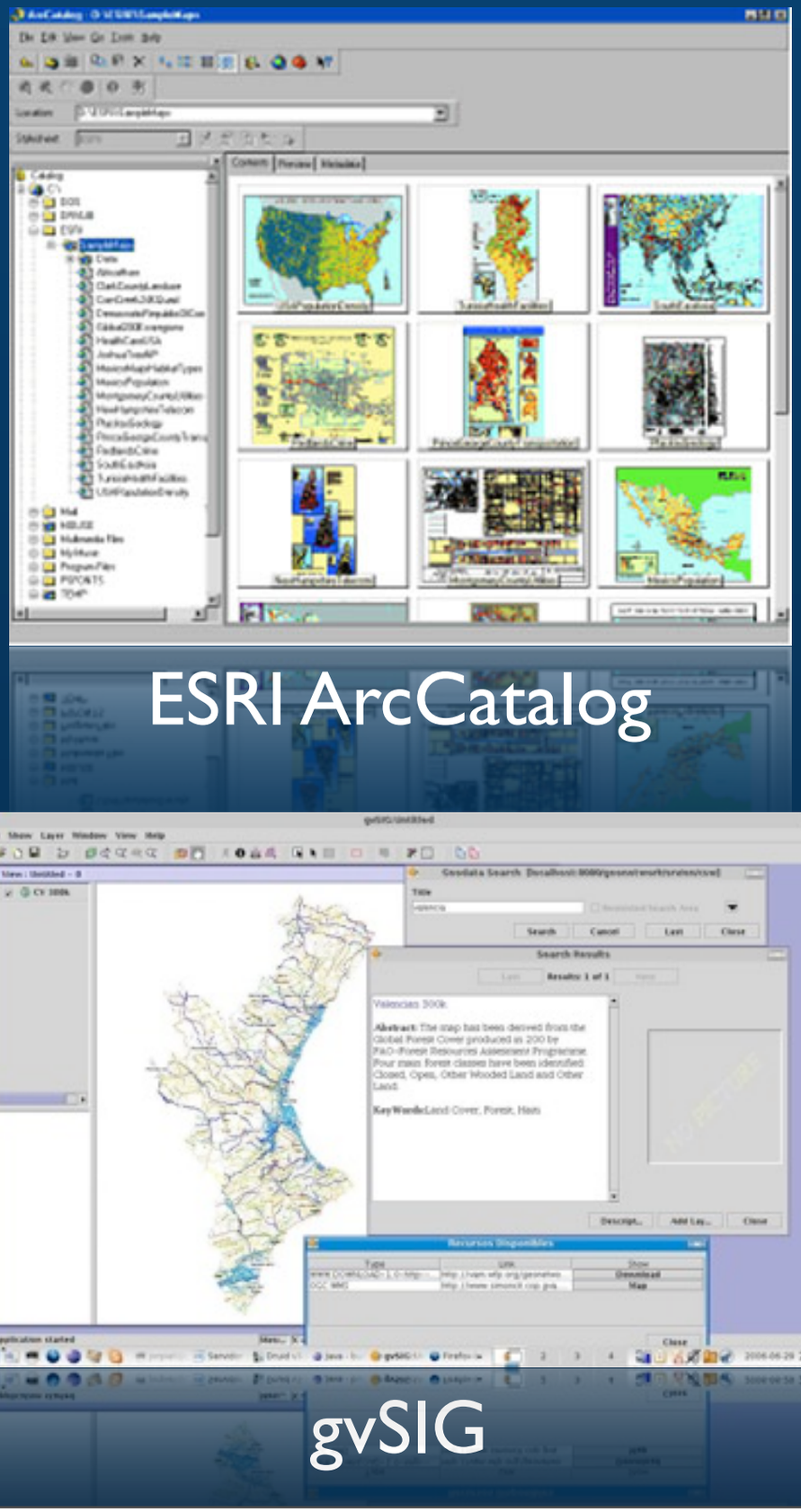
Download
Current release: 2.6

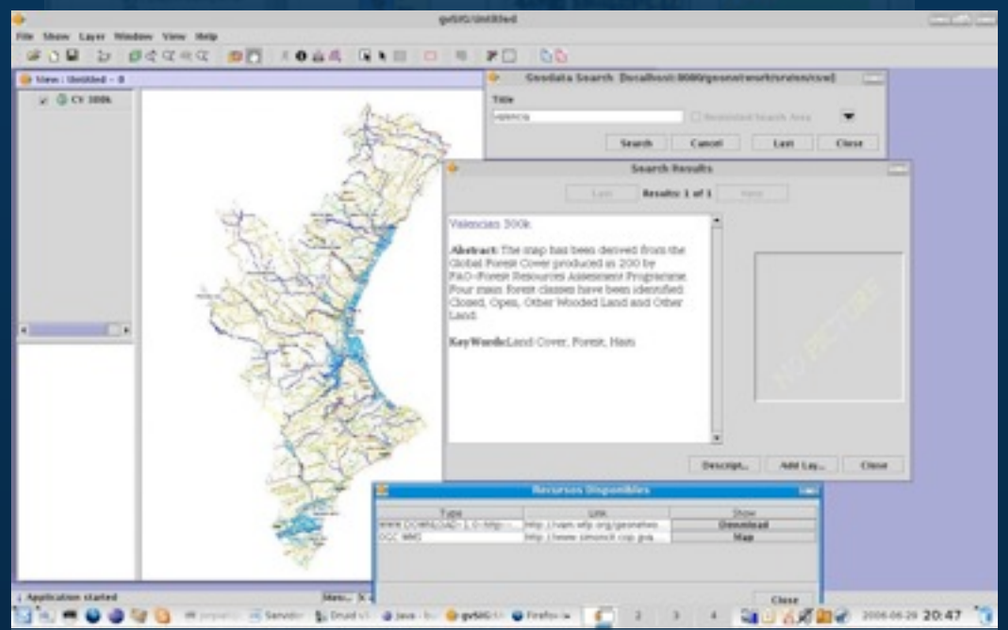
Latest posts
» Re: ask:language change??
» Fwd: maxClauseCount Problem
» Re: GeoServer could not be started
» Re: Release of GeoNetwork opensource 2.6.0RC2
» Re: Release of GeoNetwork opensource 2.6.0RC2

Join the discussion

Tool integration



ESRI ArcCatalog



gvSIG

GeoNetwork

Export/import
metadata & data

Thanks to the GeoNetwork Developers and Users!!!

And to you for listening!

Don’t forget to vote :-)

http://www2.computable.nl/computableawards/stem/