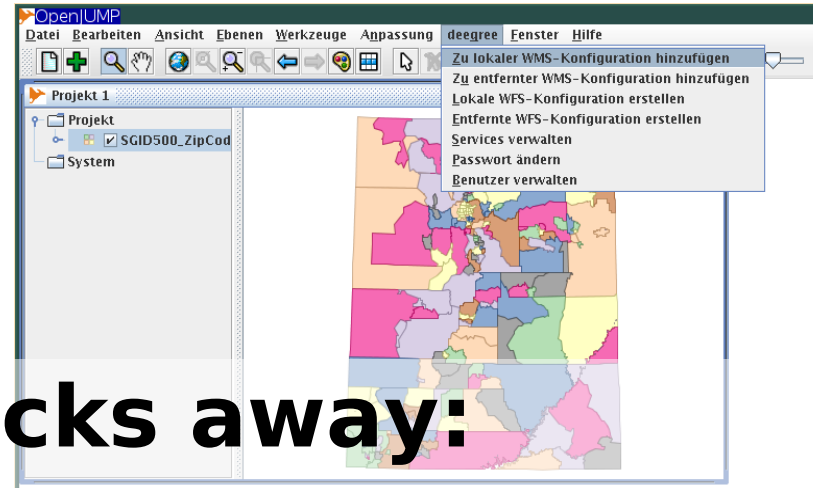

A few mouse clicks away:

Configuration of deegree WCS, WFS and WMS with OpenJUMP

lat/lon
raumbezogene informationssysteme

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Jens Fitzke
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http://www.lat-lon.de/

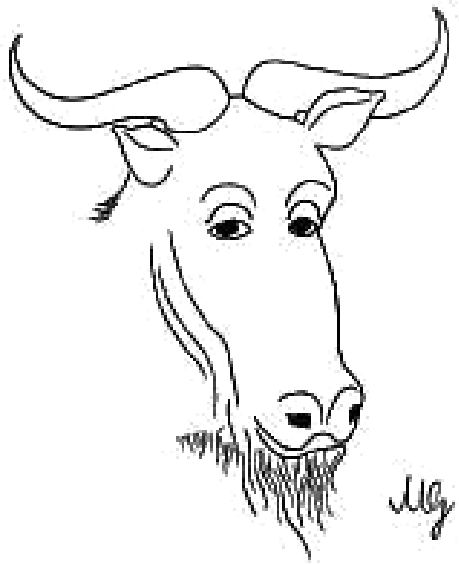
Agenda

- short introduction
- initial situation & requirements
- approach & realisation
- workflow at a glance
- features & plug-ins

deegree

.org

joint project between AG GIS, Dept. of Geography, Uni Bonn and lat/lon
free software in terms of FSF: LGPL



.aim

interoperability
management of geospatial data
setup of Spatial Data Infrastructure (SDI)

.how

ISO-models and OGC-interfaces
abstraction from data sources
~ 2000 classes

.now

most comprehensive implementation of OGC/ISO-standards in free software:
WMS & WCS (OGC reference implementations), WFS, CSW, WTS/WPVS, WPS

http://www.deegree.org/

initial situation & requirements

Initial Situation

- intended for: system administrators, GIS users without IT background, education
- challenging for beginners: complicated setup and customisation
- example of a "simple" deegree WMS configuration:

```
./WEB-INF/web.xml
./WEB-INF/conf/wms/wms_configuration.xml
./WEB-INF/conf/wms/styles.xml
./WEB-INF/conf/wms/LOCALWFS_capabilities.xml
./WEB-INF/conf/wms/LOCALWCS_capabilities.xml
```

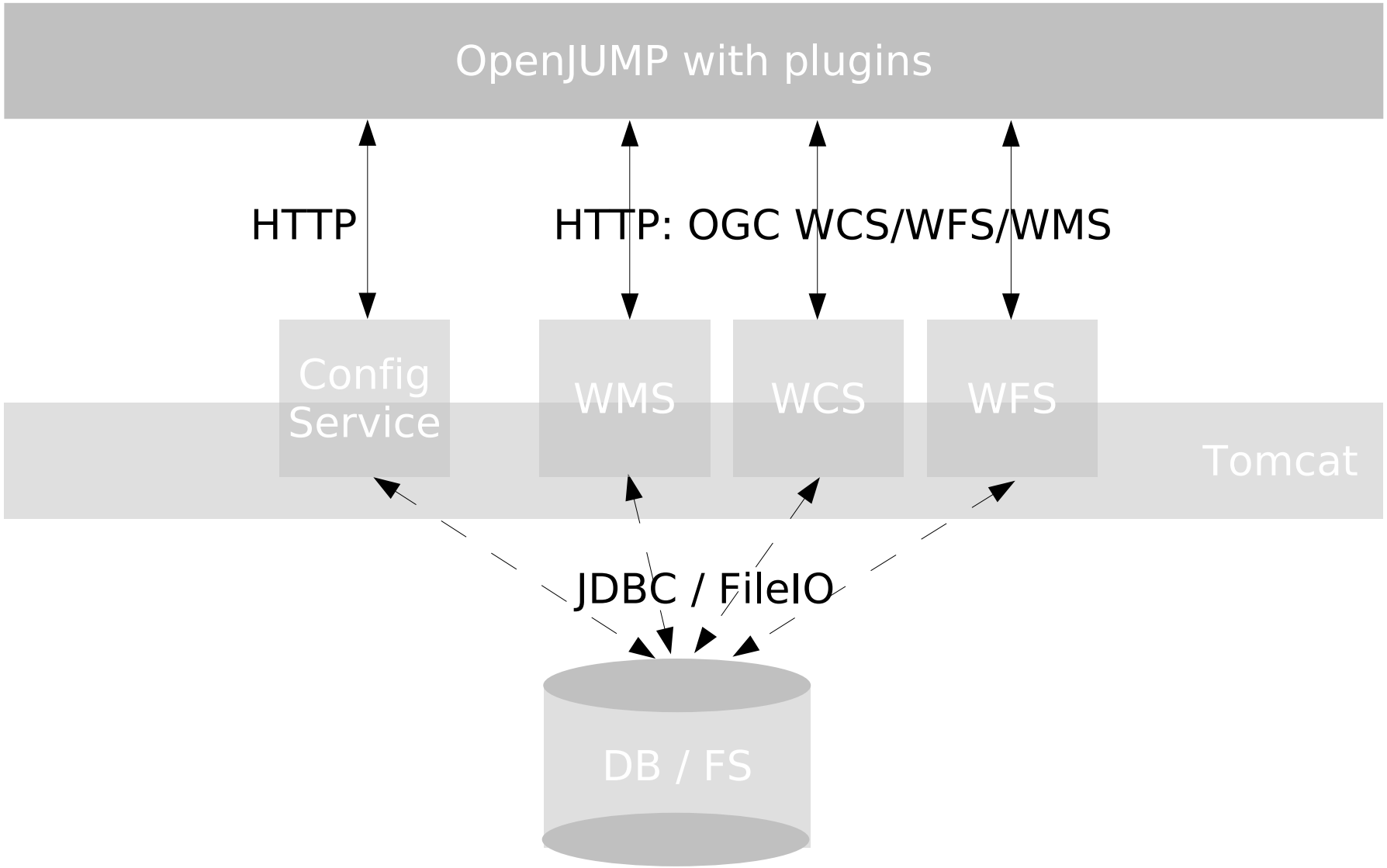
Requirements: Configuration Tool

- decentralise service administration
- configure via HTTP (remote) and FileIO (locally)
- provide multi-user support and access-rights control
- use OpenJUMP as SKOWYSIWYG* - map editor
- transfer geospatial data into a central PostGIS DB
- rename and select feature type attributes for responses of WFS::GetFeature and WMS::GetFeatureInfo
- SLD create, read, write, import, export
- edit service meta data

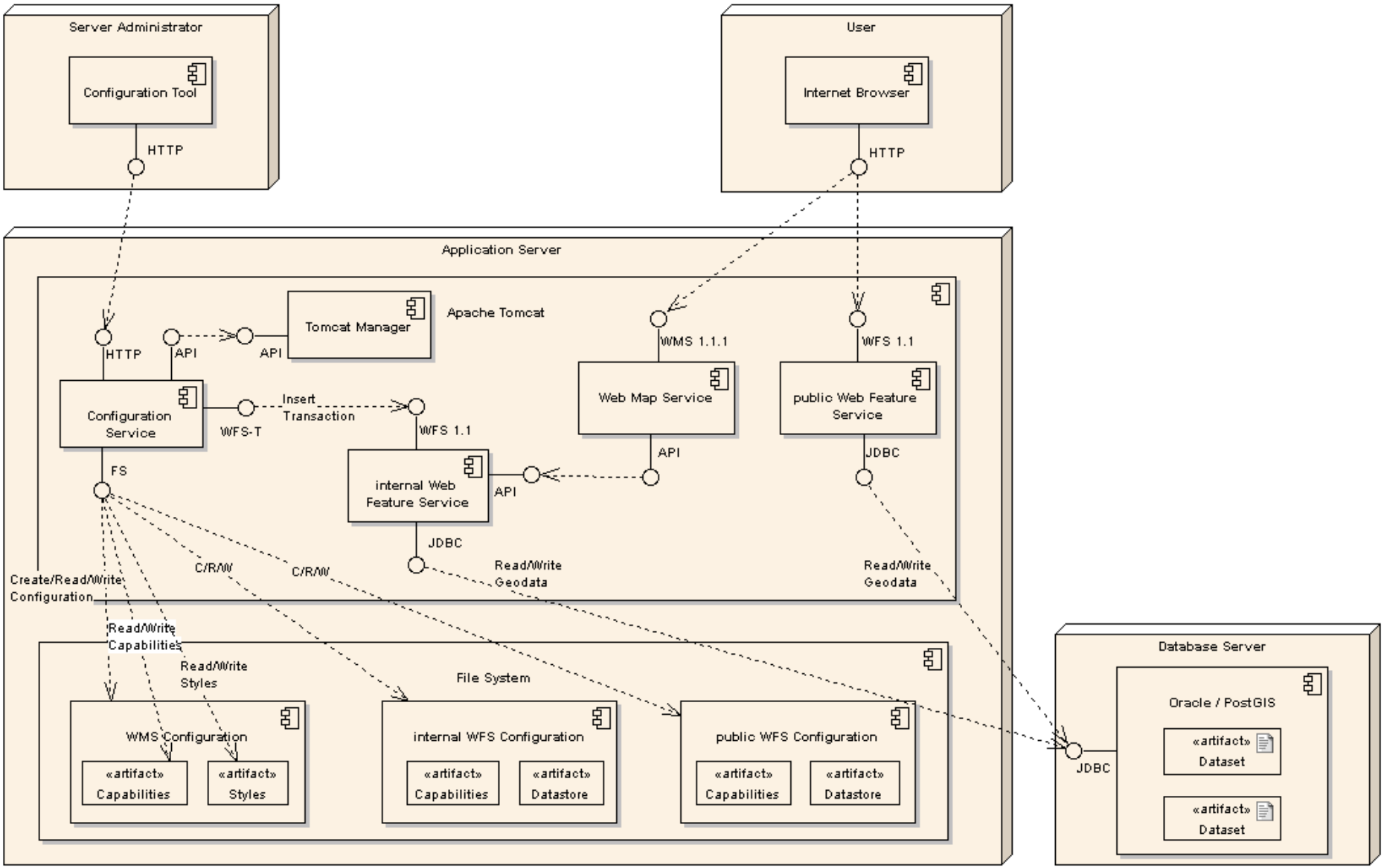
* some kind of: what you see is what you get

approach & realisation

Concept


OpenJUMP with plugins
HTTP
HTTP: OGC WCS/WFS/WMS
Config Service
WMS
WCS
WFS
Tomcat
JDBC / FileIO
DB / FS

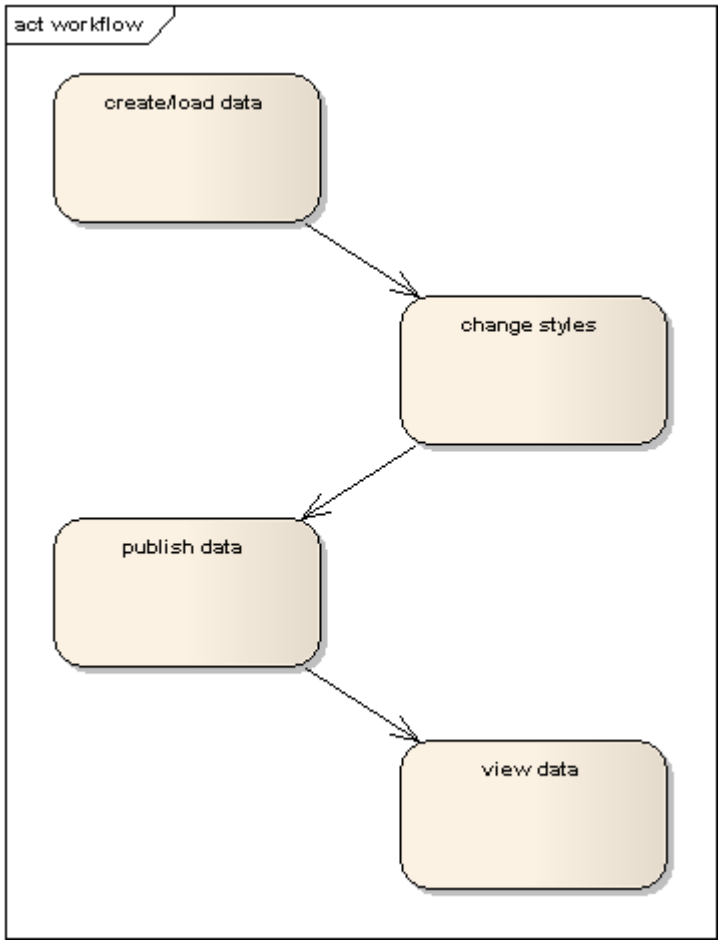
Architecture



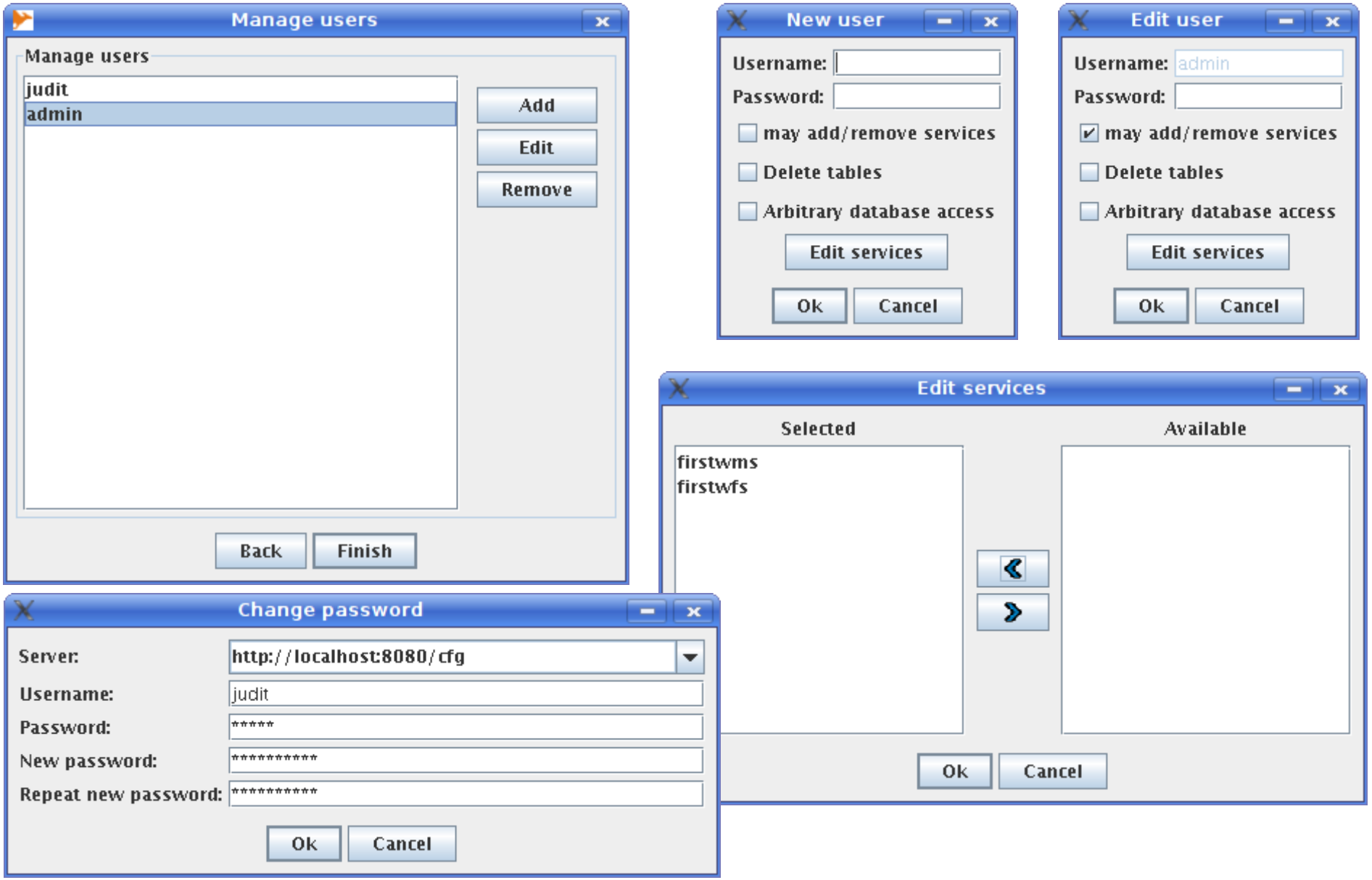
workflow at a glance

Workflow

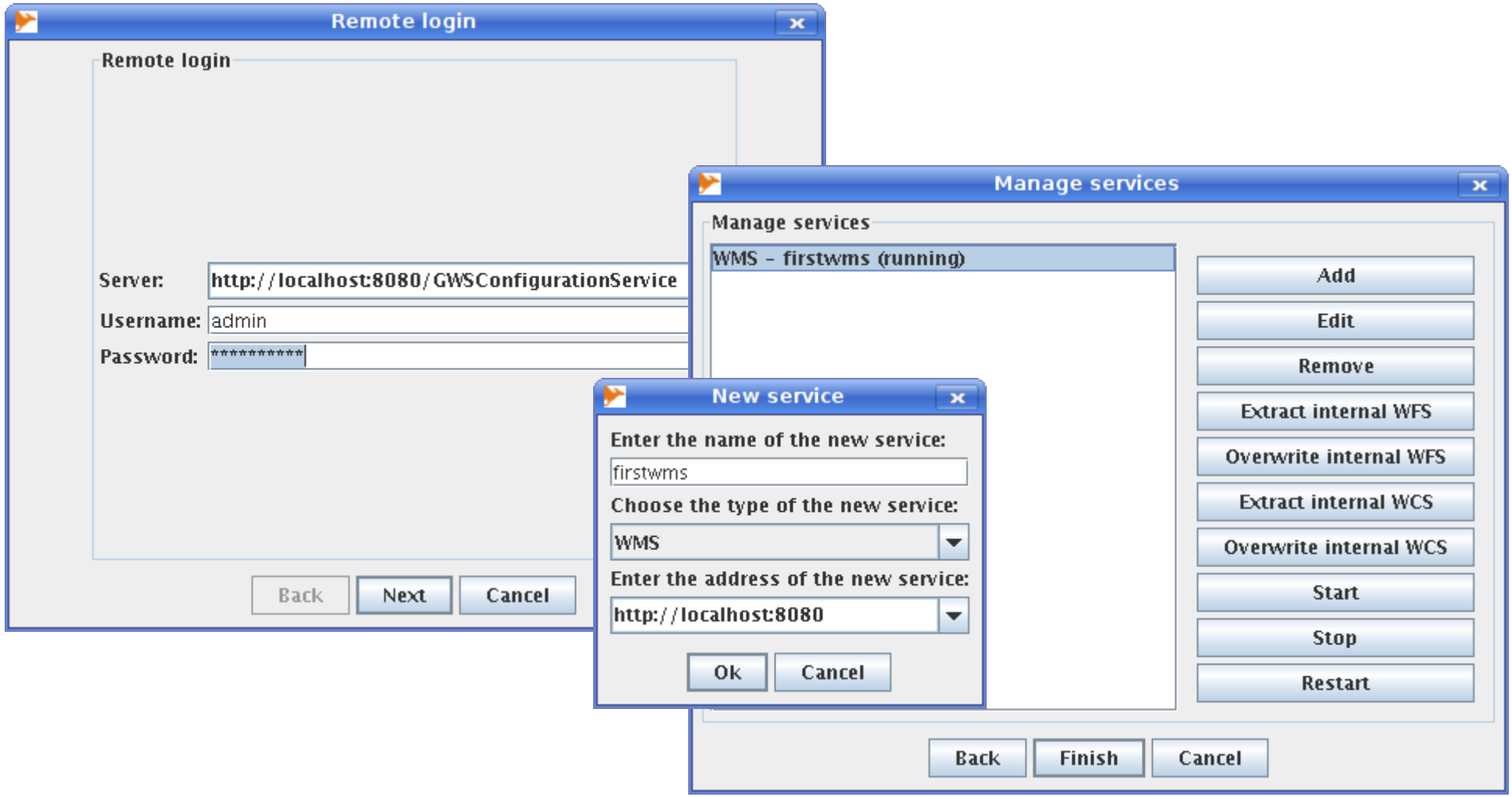
- edit user data
- log in and administer services
- configure a Web Map Service
  - add layers
  - organise layers in a tree view
  - edit attributes and styles
- configure a Web Feature Service
  - add feature types
  - edit attributes of a feature type
- configure a Web Coverage Service



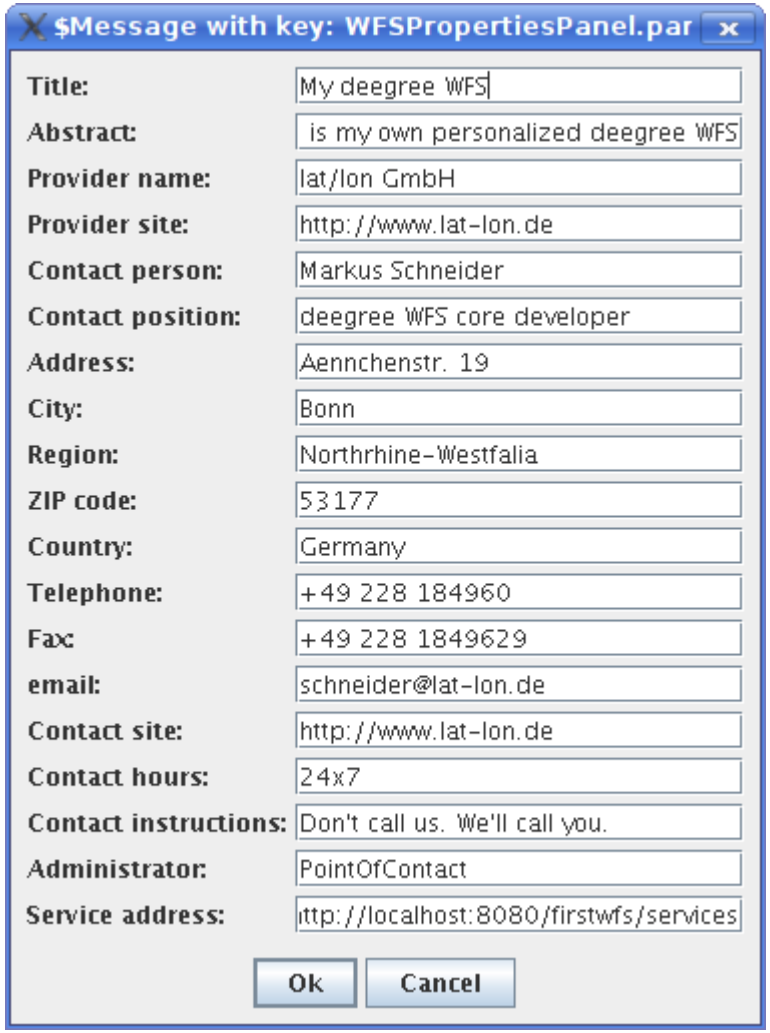
Edit User Data



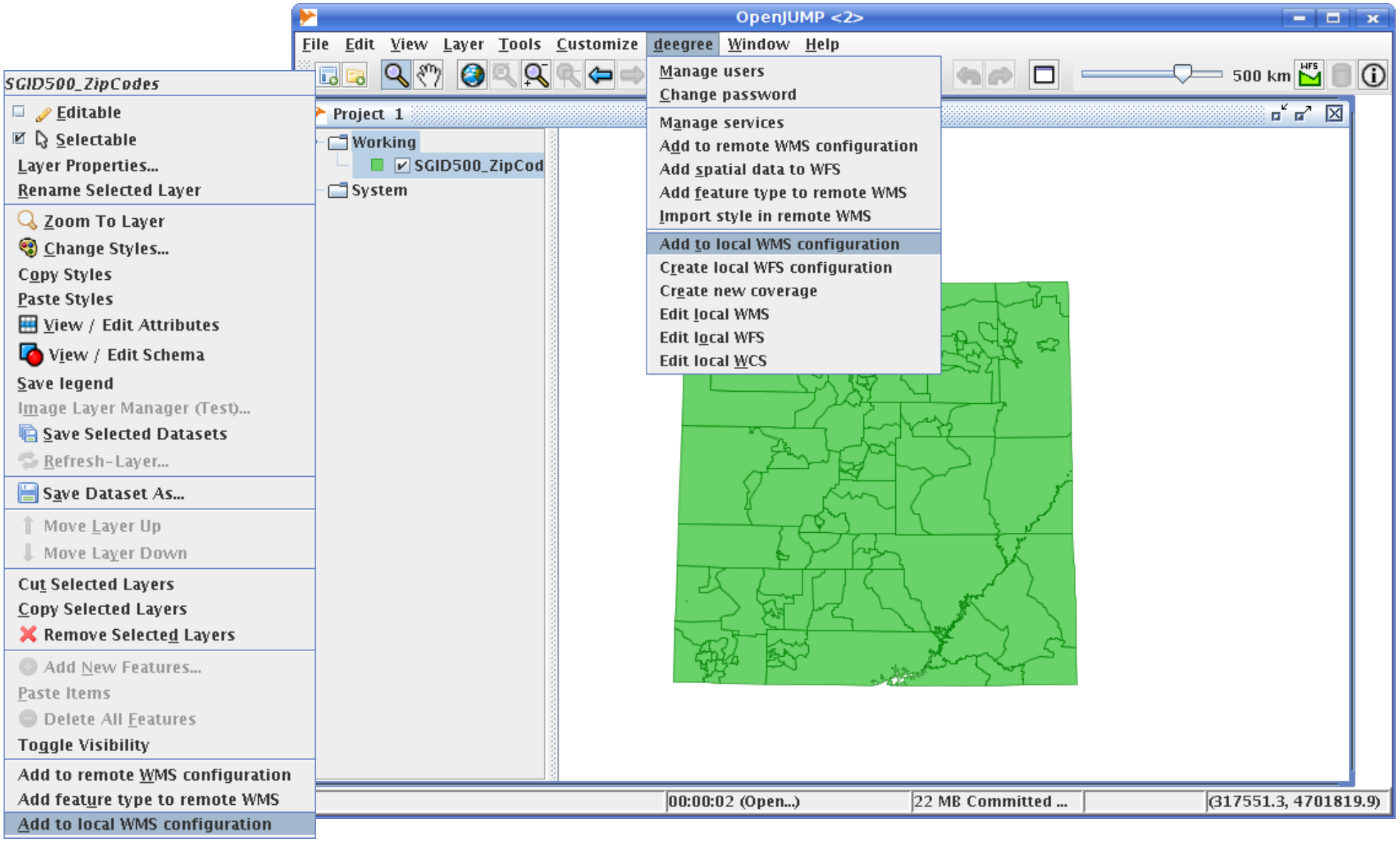
Log in and Administer Services



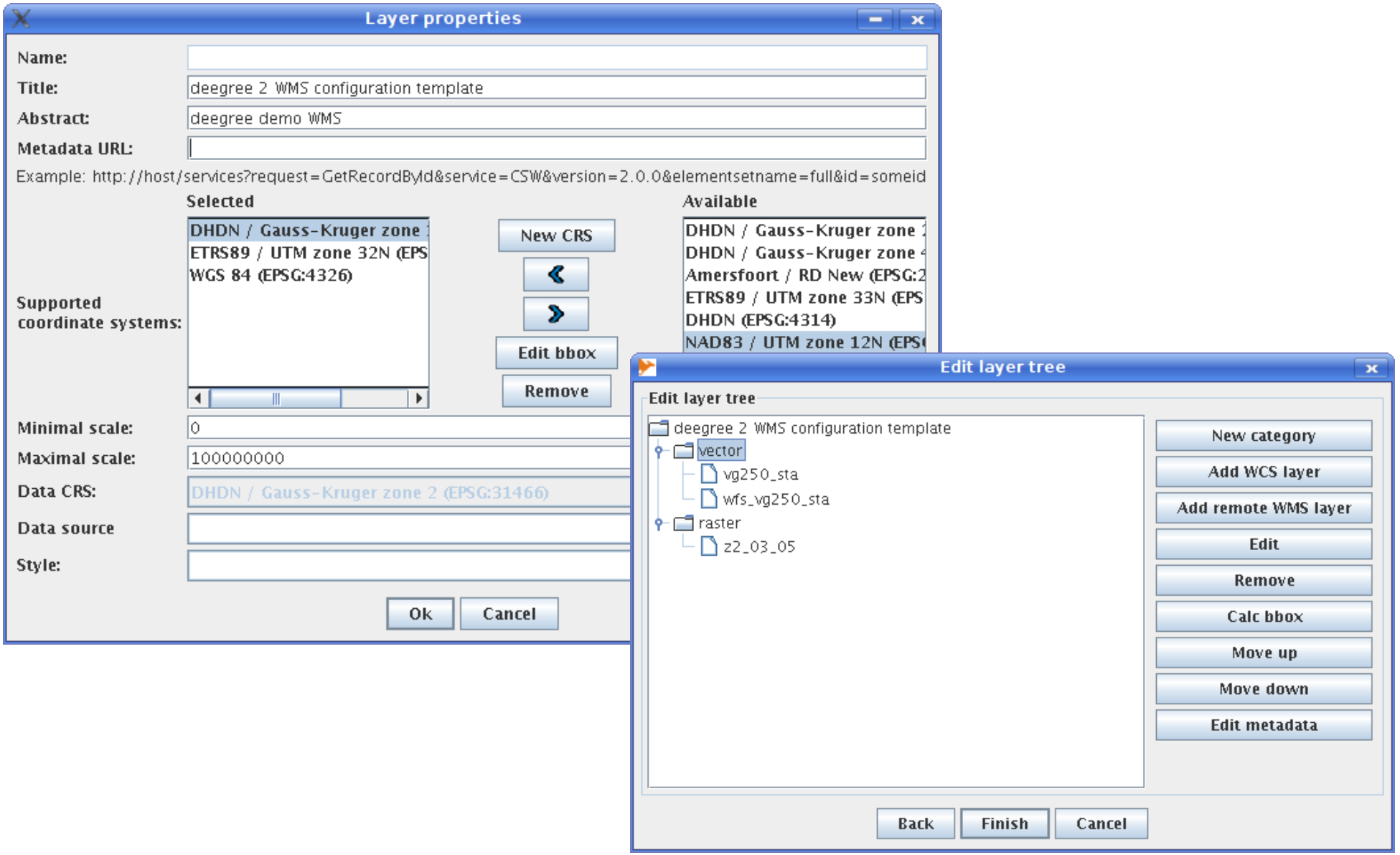
Edit Service Meta Data



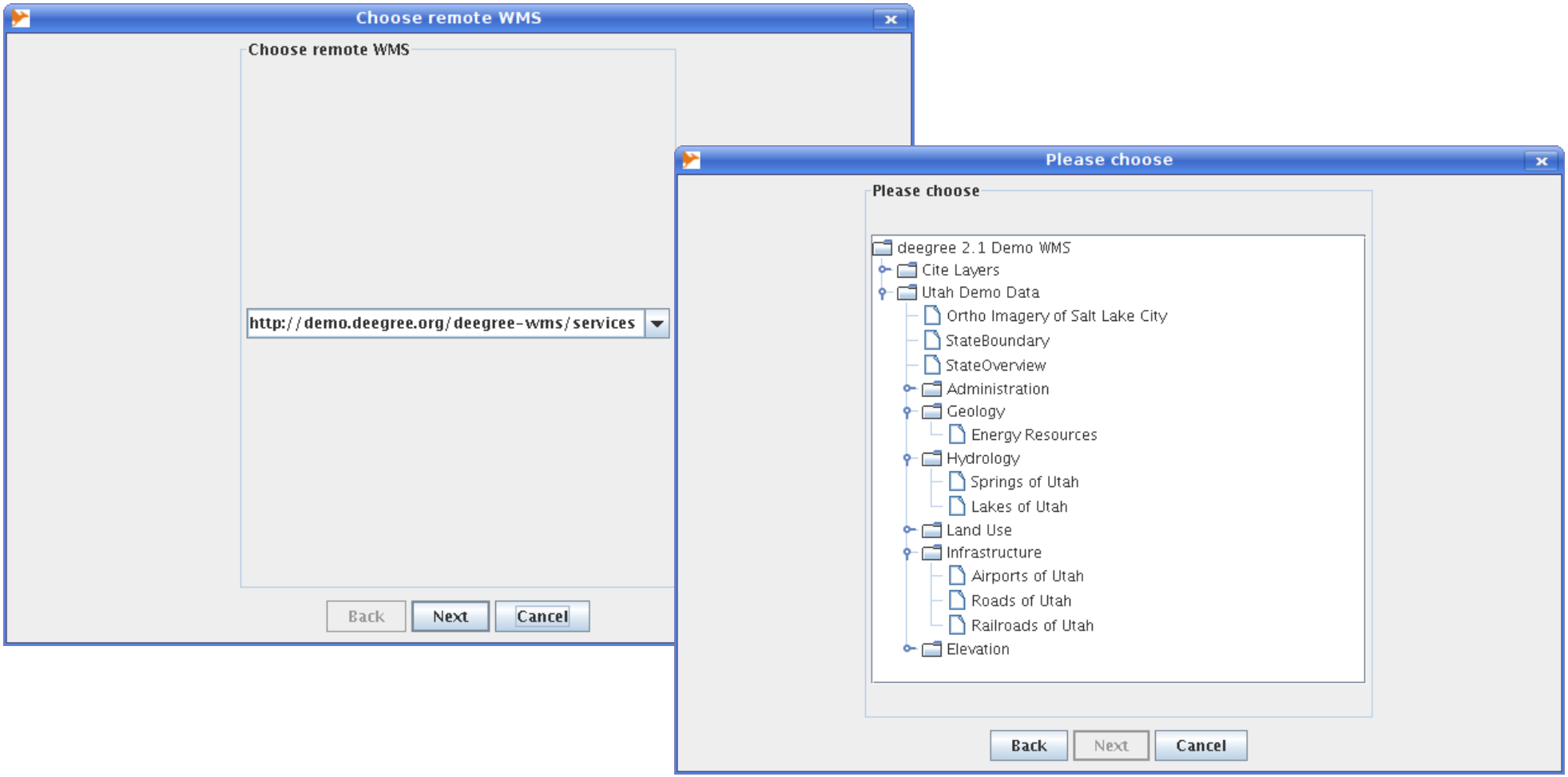
Configure WMS: Add New Layer



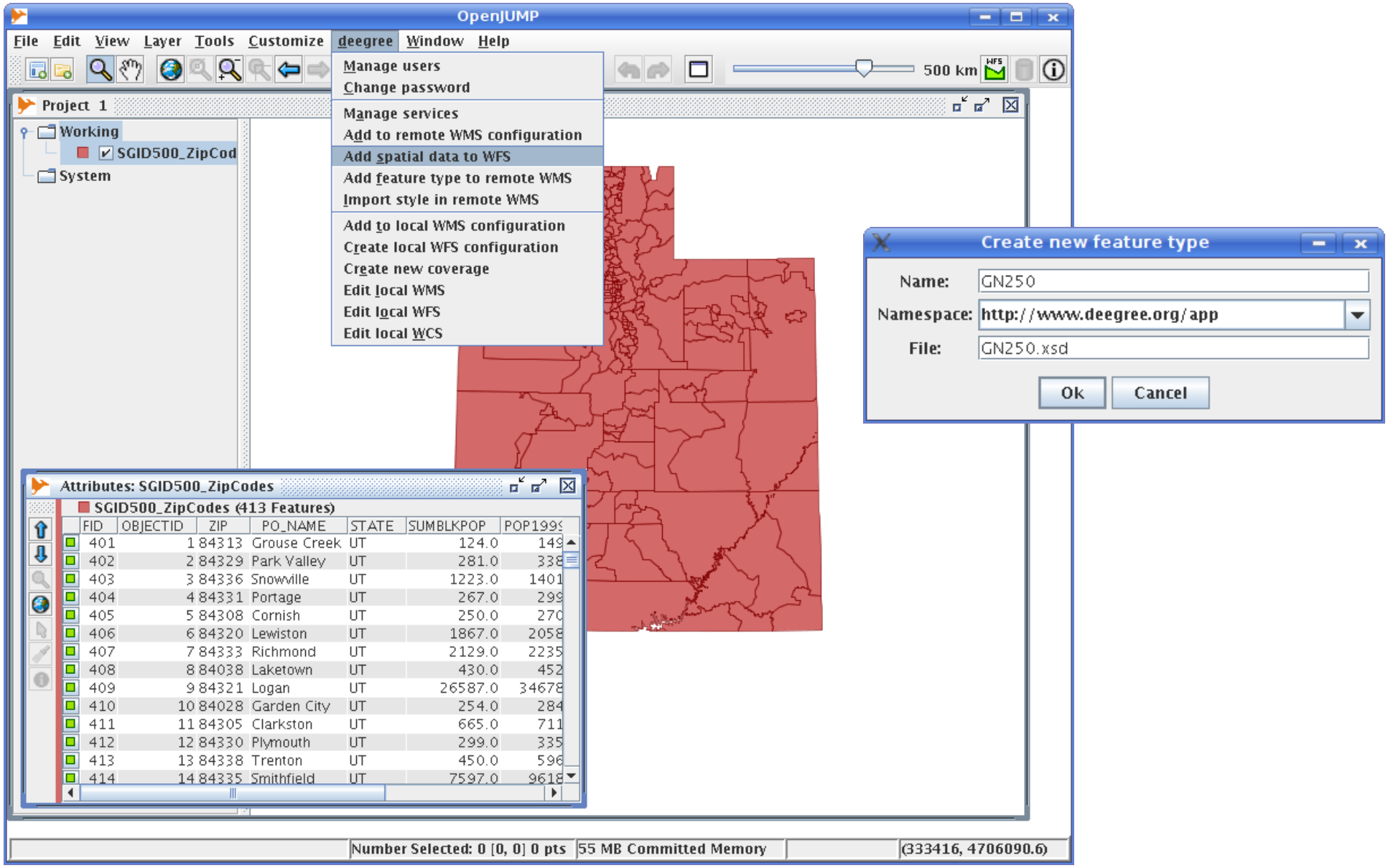
WMS: Edit Layer



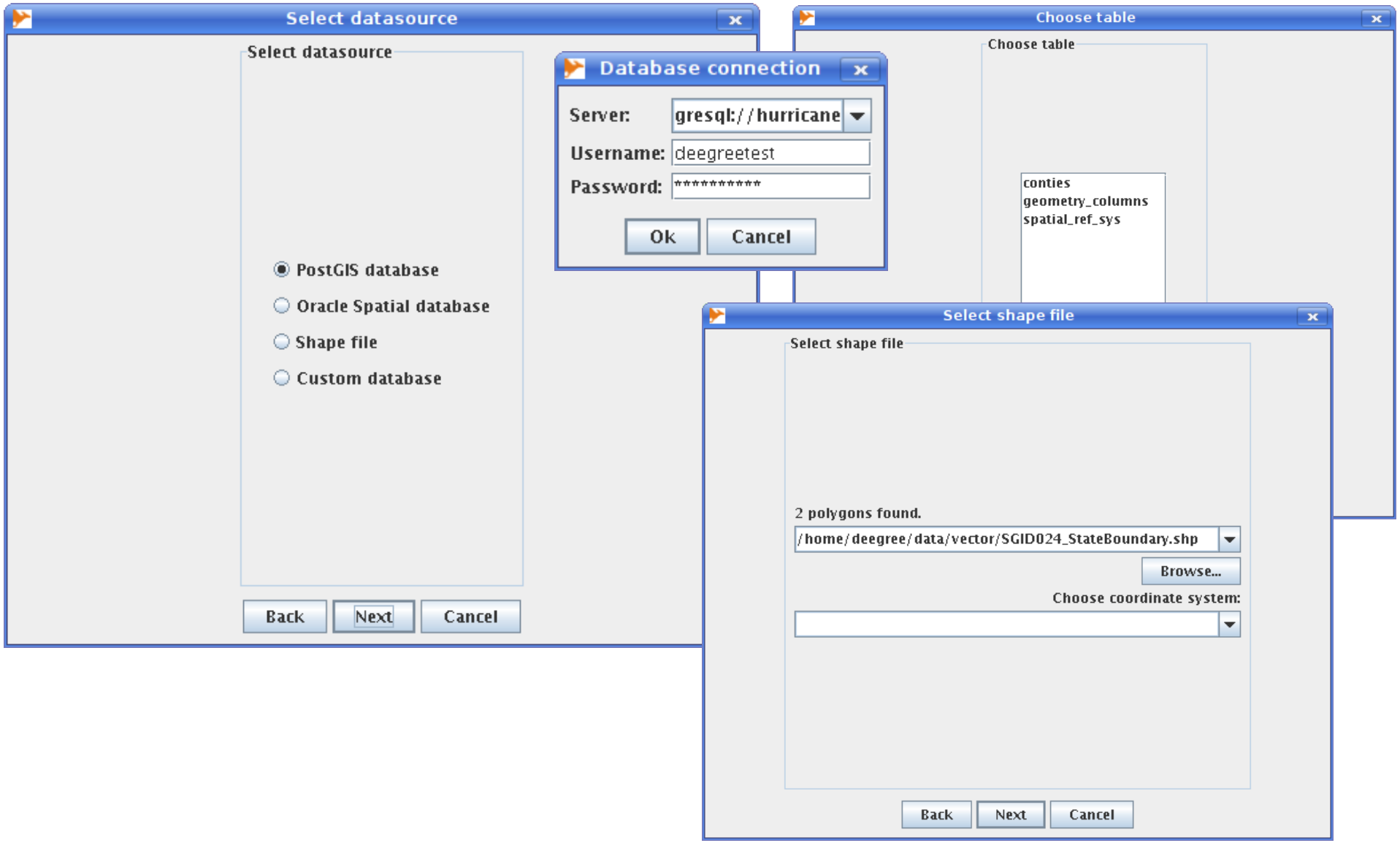
WMS: Cascading Layers



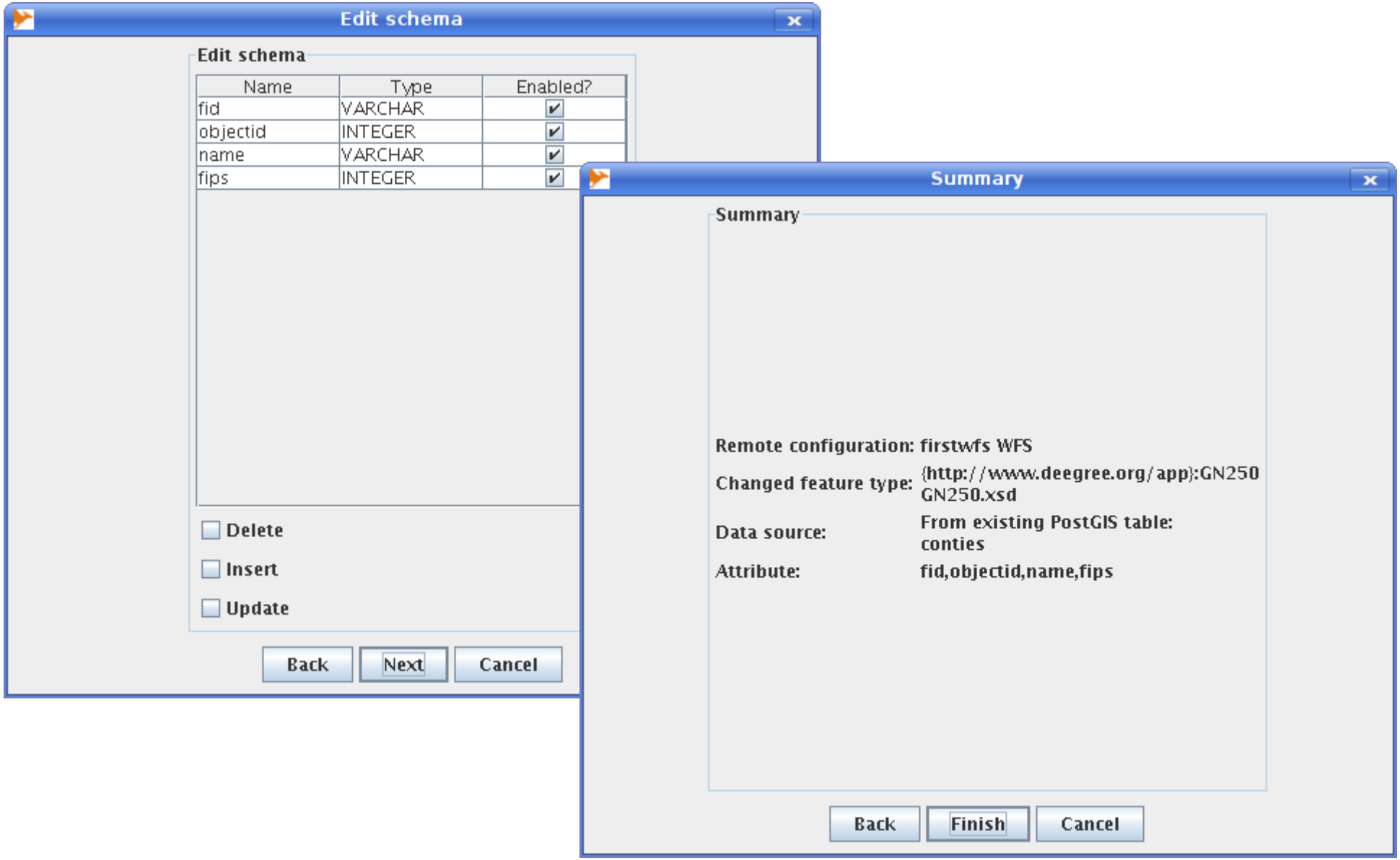
Configure WFS: New Feature Type



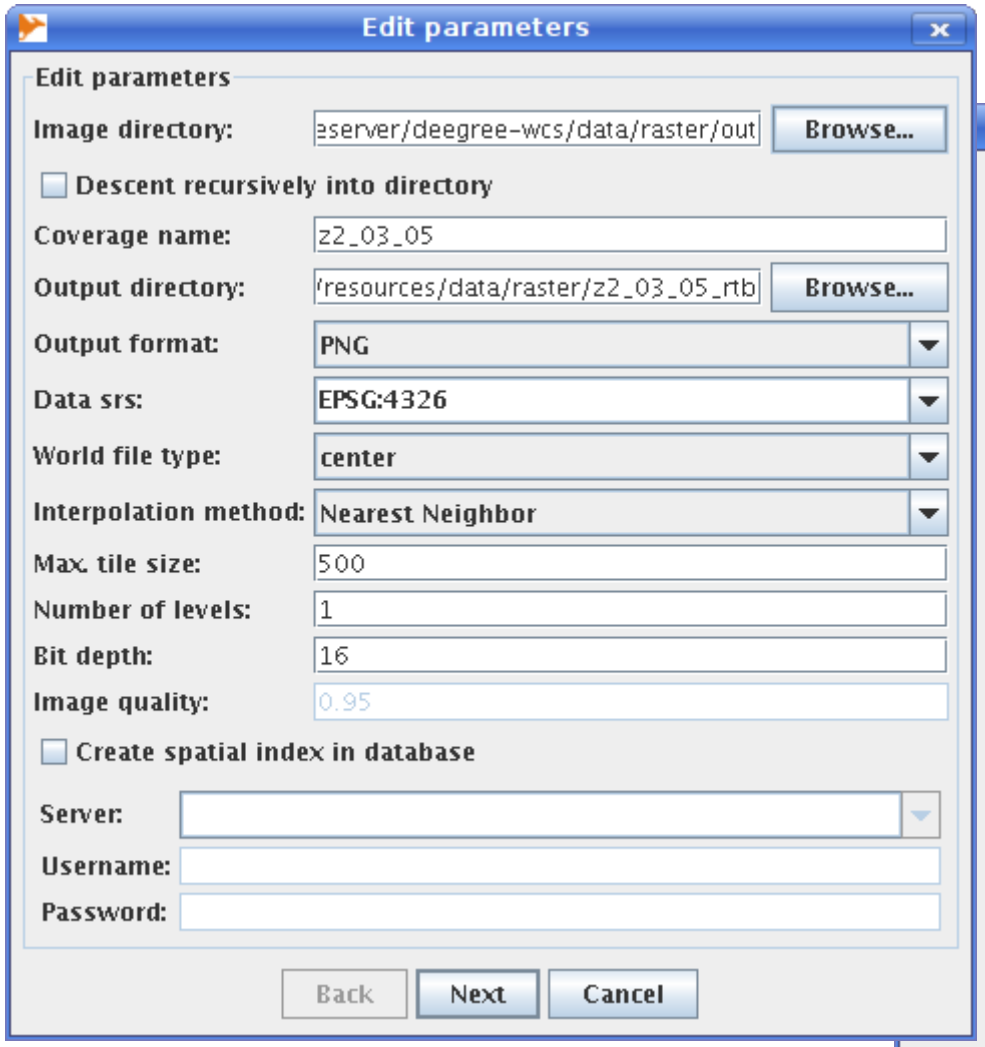
WFS: Data Source for Feature Type

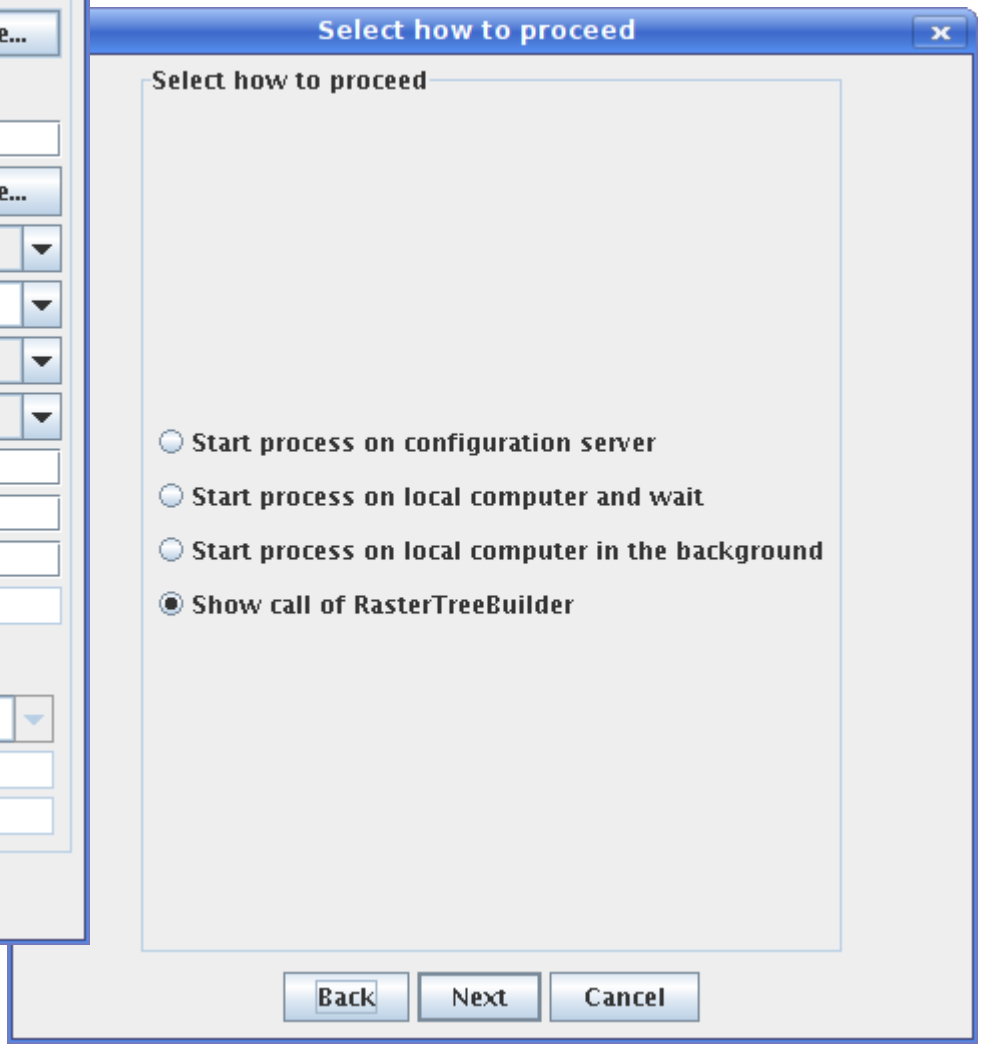


WFS: Attributes of Feature Type

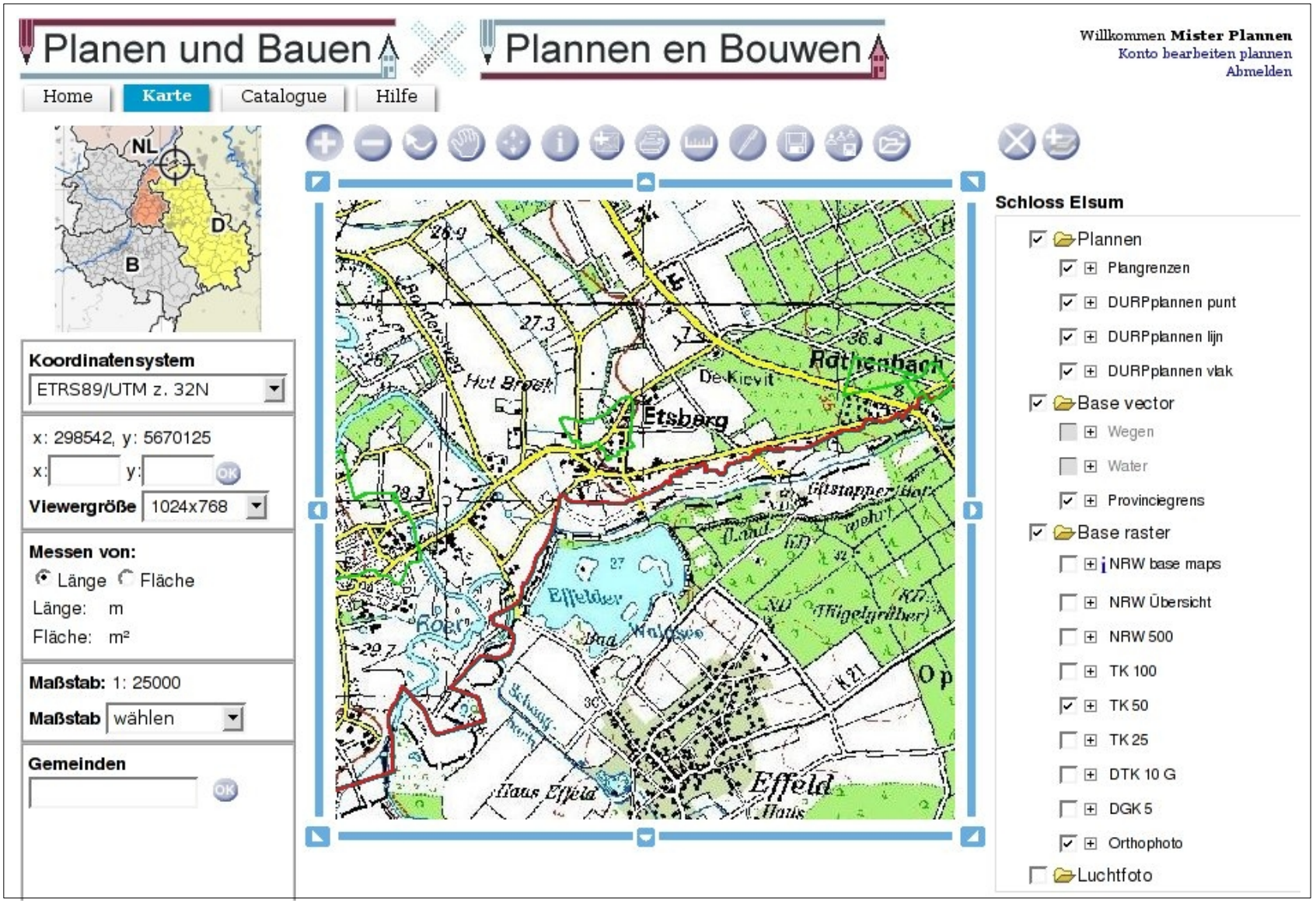


Configure WCS: New Coverage





Result: SDI Services



Features & Plug-ins

- wizard-based user navigation
- SLD import and export
- data sources
  - ShapeFiles and CSV
  - MapInfo MIF/MID, including drawing rules
  - remote WMS layers

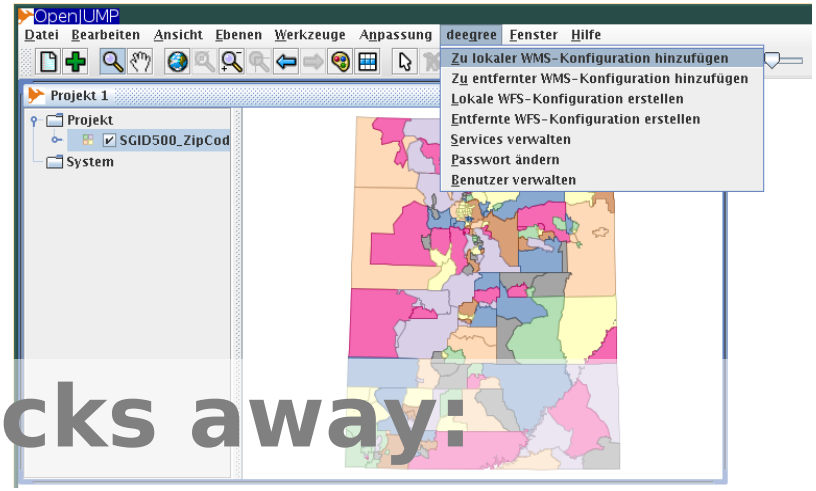
- WFS plug-in, deeJUMP plug-in, OWSConfig plug-in, Web Configuration Service (WCFGS)
- https://wiki.deegree.org/deegreeWiki/ConfigTool

Acknowledgement

The configuration tool has been supported by projects carried out in collaboration with:

- Federal Ministry of the Interior, Germany
- Free and Hanseatic City of Hamburg, Germany
- City of Bonn, Germany
- City of Wuppertal, Germany
- X-Border-GDI (Provincie Limburg, Netherlands)

any questions?



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