GEONETCast: Web Service Infrastructure

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Introduction

GEONETCast:

global network of satellite-based data dissemination

discussion of seminar's goals:

- implement a ground reception infrastructure for GEONETCast data
- set up a web service infrastructure for data discovery and data access
- possibly extend this with real-time processing
Introduction

Fields of work

- GEONETCast Data Management
- derive information products from the GEONETCast data stream
- showcase both the value of the content and the value of the web service infrastructure by developing a GEONETCast application
- set up the basic building blocks for a local SDI
Goals

Web GIS

- visualize the results of other groups (WMS)
- easy to use
- offer typical web GIS functionalities
- provide the possibility to load external WMS into the web GIS
Goals

Web GIS: Showcase

- visualization of the Fire Web Service
  - display the current possible and probable fires in the world
  - possible: 60% chance for a fire
  - probable: 80% chance for a fire
Goals

Geoserver

- set up a geoserver
- offer other groups the possibility to set up own web services
- offer other groups to set up web services for them
- provide local SDI to other institutes
Technical Approach

Free Software

- for the web GIS
  - Mapbender
  - Geoportal Framework

- for setting up WMS
  - GeoServer
Technical Approach

Architecture

**GeoServer**
- publish WMS
- WMS request
- WMS delivery

**Mapbender**
- use web GIS and WMS
- load WMS to GUI

set up WMS
Methodological Approach

- explore software capabilities
- determine necessary work
- set up work packages
Methodological Approach

WP 1: Project Management

WP 2: Reports, Documentations and Presentations

WP 3: Installation/ Configuration

WP 4: GEONETCast-WMS

WP 5: GUI

WP 6: Integrate WMS
Results

- GeoServer
- Web GIS (Mapbender)
Lessons learned

practical work

● setting up a web infrastructure
  ○ Mapbender
  ○ GeoServer
  ○ WMS

● working on a linux server

● overview of GEONETCast network and products
Lessons learned

data retrieval

- problem: no sufficient data for the showcase first planned
- reason: development of showcase before close look at the data
- solution: do a widespread data analysis before developing showcases
Possible Enhancements

- also enable search for features in Mapbender
- problem: would not make sense for the data we used