



The only allowed
PowerPoint in
the week



BioGeoSDI Code Fest in Campinas - April 2007



Overview

1. Objectives of the week, what people expect from us
2. Mockup. What we envision
3. Rules of the code fest
4. Tasks and skill metrics
5. Daily Milestones
6. What do we have already in place



Objectives of the week

Biodiversity
Information
Standards
T D W G

TDWG GeoInteroperability Testbed Pilot Project

SubStandards TIP Proposal - November 2006

Objective:

We envisage an environment where the many different TDWG initiatives can interoperate to provide a rich set of tools for biodiversity knowledge exploration, analysis and discovery - a Biological Geospatial Data Infrastructure. This proposal is a first step towards creating such an interoperability environment. We aim to test and demonstration of the use of biodiversity informatics and geospatial standards, mainly TDWG and OGC, by creating and implementing a very simple use case that integrates various **existing** tools and standards within the TDWG universe.

Responsible:

The newly formed SubStandards task group. The SubStandards task group is a new task group that is being created under the TDWG Geospatial Subgroup. The group is still not an official TDWG task group but will likely be in the near future. The convener of this task group will be Javier de la Torre.

Outcomes:

The main result of the meeting will be a demonstration of the interoperability and usability of the different standards involved in the experiment. To do so a workflow of chained services will be designed and demonstrated in a web application which integrates **existing** projects, technologies, and standards. We place a strong emphasis on the use of 'existing' facilities since we want to produce a rapid prototype and limit *de nouveau* development to strictly the minimum needed to achieve interoperability between the components listed below, and the provision of a simple web interface that will allow the user to 'test drive' our test bed.

Three major components- Taxonomic Object Services (TOS), the Spatial Data Library (SDL) and to a lesser extent, High Performance openModeller web services (HP-OMS) of such a work flow are beyond the scope of development within a workshop such as this, and so development tasks for these are submitted as separate proposals or obtained elsewhere (SEEK-Taxon, SPICE for TOS). However, the development of both SDL and HP-OMS are driven primarily by their respective use cases, which are to a certain extent, expected to be defined at this developer workshop. Hence it is important that the SDL and HP-OMS are available as prototypes for the workshop.

Tagging of these data sources and services with LSIDs will be an important component of the envisaged work flow, and will be critical to the operation of the SDL and to enable tracing of the data through the work flow.

The workflow will include:

- Use of taxonomic Name/Concept resolution service with LSIDs.
- Primary data harvesting using WFS(2), TAPIR, and/or DiGIR?
- Visualization of primary data with other Geospatial sources using WMS.
- Discovery of environmental layers using catalog services CSW (4).
- Use of the openModeller Web Service to accomplish a model experiment
- Presentation of the results in a web application using WMS and other OGC standards
- Assignment of LSIDs to analysis outputs

All the source code of the workshop will be available as Open Source on the biogeosdi.org trac system and the working prototype will be accessible to the general public.

Tentative list of participants:

- Tim Sutton (openModeller Web Service)
- Aimee Stewart (SDL Catalog, Environmental Data Management)
- Dave Vieglais (Taxonomic Concept Service, Mapping and Web UI, LSIDs)



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Objectives of the week

“ We aim to test and demonstration of the use of biodiversity informatics and geospatial standards, mainly TDWG and OGC, by creating and implementing a very simple use case that integrates various existing tools and standards within the TDWG universe “

We will produce:

1. Prototype-proof of concept web application that uses several standards-technologies
2. Document-report explaining problems or issues setting up such a prototype



Mockup. What we envision



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BioGeoSDI experiment

Welcome to the BioGeoSDI experiment!

This is the Flex Web App prototype of the BioGeoSDI meeting in Campinas.

The idea behind this prototype is to demonstrate that



[Go to do an experiment!](#)

[Go to do an experiment!](#)



Rules of the code fest

I Rule of easiness and not get stuck

“ If it takes more than 5 min you are doing it wrong “

I. I You have to promise not to tell anybody how bad we have programmed





Rules of the code fest

2 Document as we go

“The goal of the meeting is to create a report too, please take it in consideration.”





Rules of the code fest

3 Drive by daily milestones

“Tasks must be divided in a way we can change the objectives every day “





Rules of the code fest

4 Love Subversion

“Commit as often as possible as long as the source “compiles” “





Rules of the code fest

5 Extreme coconut programming

“ Join or split as needed to achieve different tasks “





Rules of the code fest

6 Keep fresh

“There must be always
coconuts to improve
interoperability”





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Tasks and skill metrics

	Bart	Dave	Aimee	Tim	Pete	Javi
PHP	✓	✓	✗	✓	✓	✓
Python	✗	✓	✓	✗		✓
Geoserver	✓	✗	✗	✗		✓
Taxonomic services	✗	✗	✗	✗	✓	✗
Flex	✗	✗	✗	✗	✗	✓
openModeller	✗	✓	✗	✓	✗	✗
Mapserver	✗	✓	✓	✓	✗	✗
Bash	✗	✓	✗	✓		✓



Daily milestones

“Every morning we set new ones”

Those are my principles. If you don't like them I have others.

Sunday:

Finish this horrible presentation.

Get in touch with what's been done.

Complete code framework in place





What we have in place

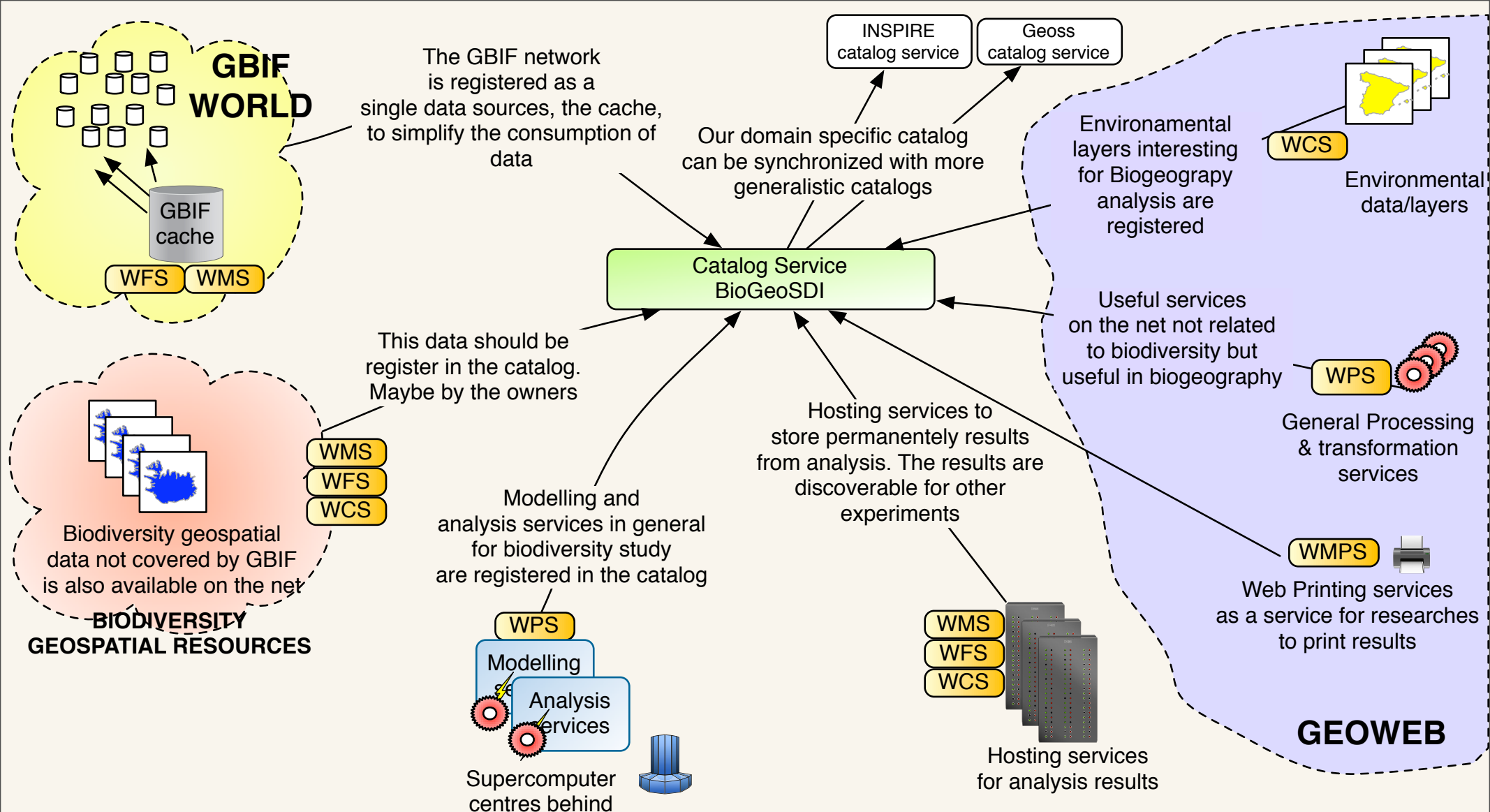
- Doxygen
- SVN
- Testing server (omtest)
- Wiki notes
- Minimal coding standard
- Report template in SVN
- Geoserver and PostGis





Let's have some coding fun!





Biogeography Spatial Data Infrastructure

BioGeo Spatial Data Infrastructure