

# Web Symbol Service

Prototype implementation for remote access of symbologies

*Google Summer of Code*



**proDEVELOP**  
Integración de tecnologías



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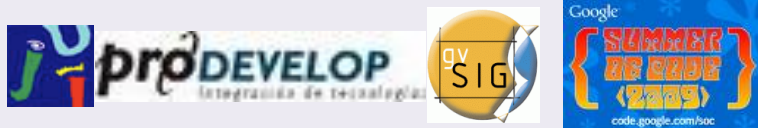
# Contents

- Introduction
- Symbols Server
- Client-Server Dialogue (WSS)
- Symbology client for gvSIG

# Introduction

# The project

- In collaboration of
  - Jaume I University
  - Prodevelop
- Funded by
  - Google (SoC 2009)



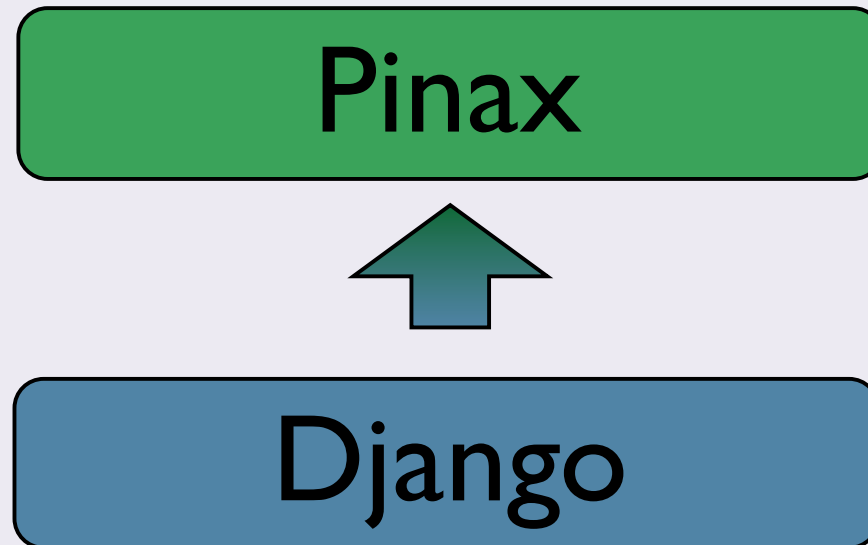
# Objetives

- Remote symbols access
- Provide a catalogue of symbols
- Offer a dialogue between client and server
  - Client: asks for a service
  - Servidor: offers symbols

**Symbols server**

# Some notes

- Python 2.5 >> 2.6
- Django and Pinax as CMS



# Objetives

## ✓ Allows

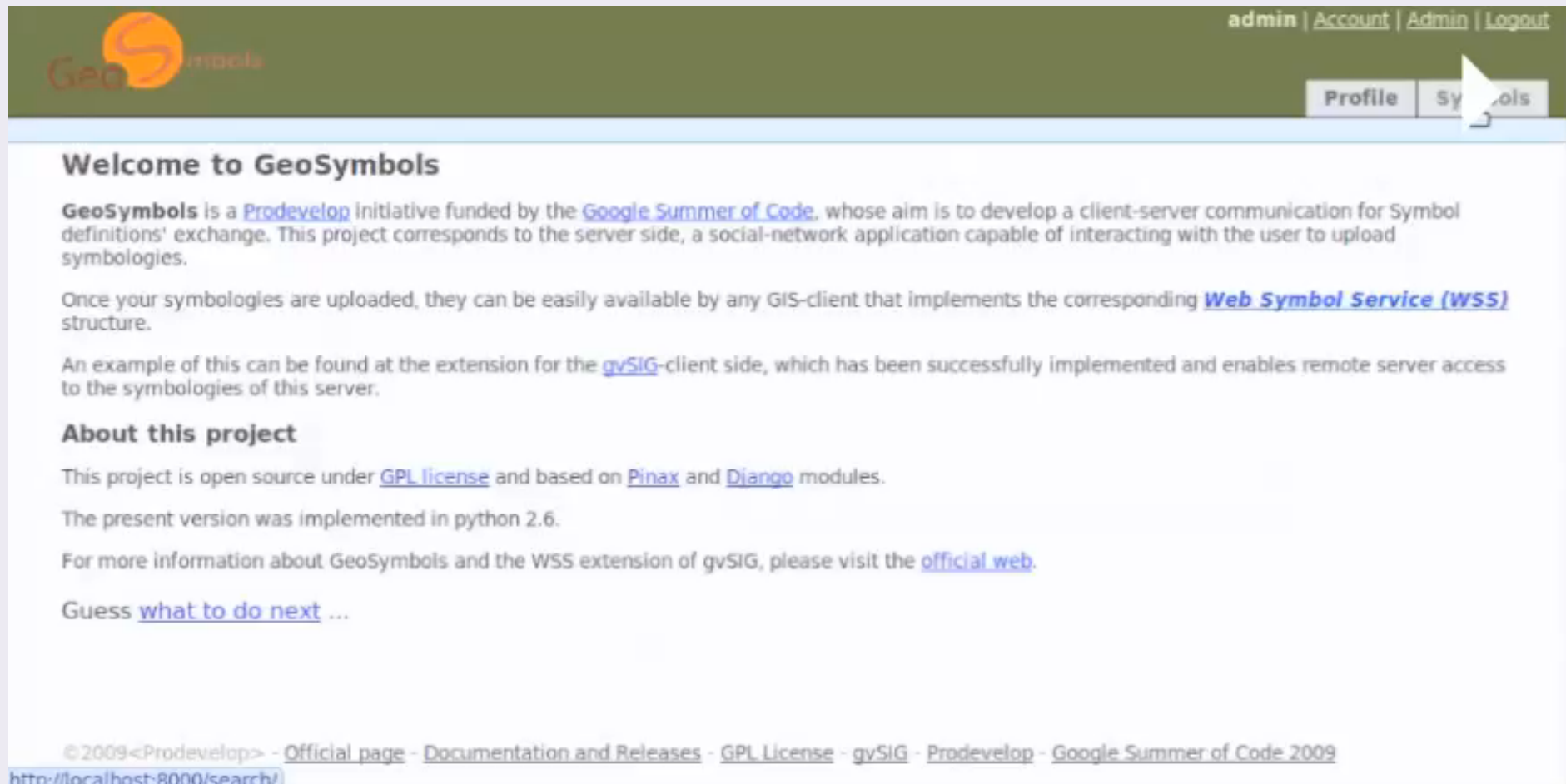
- Simple symbologies' upload
- Validation of simbologies and compulsory fields
- Tags queries

## ✗ Not allowed

- Legend uploads
- Edit and delete symbols



# Demo



The screenshot shows the GeoSymbols web application interface. At the top left is the GeoSymbols logo. At the top right, there are navigation links: "admin | Account | Admin | Logout". Below these are two buttons: "Profile" and "Symbols". The main content area has a heading "Welcome to GeoSymbols" followed by a paragraph explaining the project's purpose as a Prodevelop initiative funded by Google Summer of Code. It describes the goal of developing a client-server communication for symbol definitions' exchange. Below this, it states that uploaded symbologies can be accessed by any GIS-client implementing the Web Symbol Service (WSS) structure. An example is given for the gvSIG-client side. A section titled "About this project" follows, stating it is open source under GPL license and based on Pinax and Django modules. It mentions the present version was implemented in python 2.6 and provides a link to the official web for more information. At the bottom, there is a footer with copyright information and a search link.

admin | Account | Admin | Logout

Profile Symbols

## Welcome to GeoSymbols

**GeoSymbols** is a [Prodevelop](#) initiative funded by the [Google Summer of Code](#), whose aim is to develop a client-server communication for Symbol definitions' exchange. This project corresponds to the server side, a social-network application capable of interacting with the user to upload symbologies.

Once your symbologies are uploaded, they can be easily available by any GIS-client that implements the corresponding [Web Symbol Service \(WSS\)](#) structure.

An example of this can be found at the extension for the [gvSIG](#)-client side, which has been successfully implemented and enables remote server access to the symbologies of this server.

### About this project

This project is open source under [GPL license](#) and based on [Pinax](#) and [Django](#) modules.

The present version was implemented in python 2.6.

For more information about GeoSymbols and the WSS extension of gvSIG, please visit the [official web](#).

Guess [what to do next](#) ...

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<http://localhost:8000/search/>



# Previous validation

- Verification of
  - Online Resources
  - Validation against a .xsd file
- Once uploaded
  - Online Resource path modification
  - External WMS query for snapshot image

# WSS dialogue

# WSS Server

- Dialogue?
  - RESTful Structure
- Input?
  - URL query
- Output?
  - Error messages and info (xml)
  - Simbology file (.sld)
    - (+ embedded image)

# RESTful Structure

- Separation of terms by “/”
- Terms used:
  - Type {point, line, polygon, raster}
  - Categ {0:Agriculture, 1: Biodiversity, ...}
  - Tags {tag1, tag2, tag3, ..., tagN}
  - Filtering {all, <pag\_ini>+<group\_by>}
  - Output {.res, .sld, .xml}

# Example I

- Results (.res) by categories
  - How many point symbols are there for each category?

*<host>/symbols/points/any/all.res*

- How many polygon symbols are there for each category that also have both “lake” and “Spain” tags?

*<host>/symbols/polygons/lake+Spain/all.res*

# Example 2

- Symbols metadata (.xml)
  - List the all metadata (id, tags, titulo, ...) symbols of page 2, grouped 8 by 8, where their category is “3:Agriculture” and its tag “corn”.

`<host>/symbols/points/3/corn/2+8.xml`

**Symbology client**



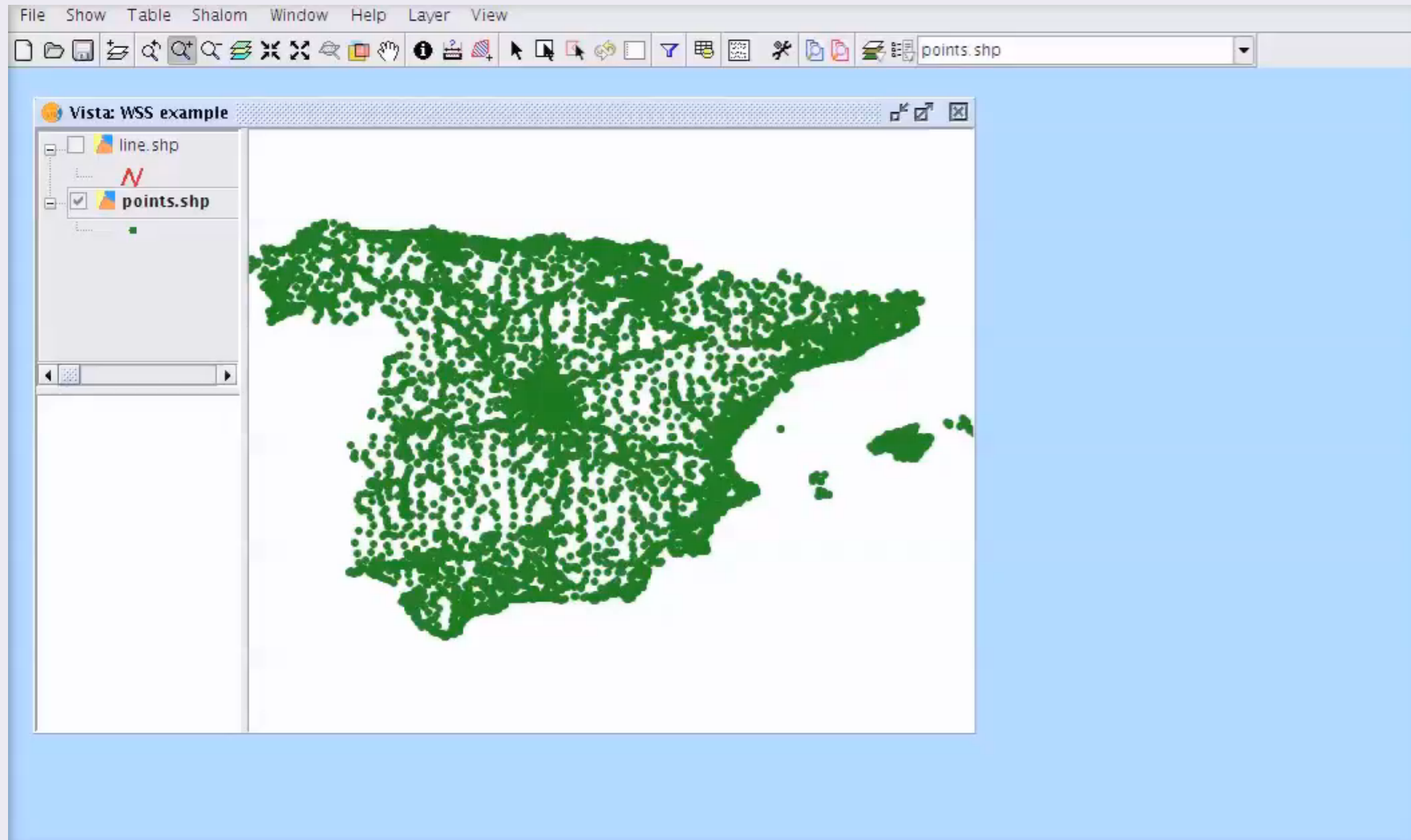
# WSS client

- gvSIG extension of the symbols library
- It allows:
  - Local and remote symbol query
  - Local and remote symbol loading and save them locally

# Lacks

- Not allowed
  - Online Resources from WSS server not parsed properly

# Demo



# Future

- Encourage organisms and enterprises to use WSS for publishing their own symbols
- Develop of a complete specification
- Extend the WSS protocol
- Better usability

Questions



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<http://confluence.prodevelop.es/display/WSS/Home>