

# Open Access to Geospatial Data using Open RESTful Web Services

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# REST principles

## **Addressability**

resource has URI

## **Stateless**

each request contain all information necessary to understand it

## **Representations**

resources have different representations

## **Connectedness**

walk through URIs

# REST principles

**It is WWW**

# RESTful Web Services

HTTP Envelope

URI

HTTP methods

GET, POST, PUT, DELETE, HEAD, OPTION

HTTP Header

HTTP Response Codes

# Why REST?

## Utilizing WWW

- Caching
- Searching
- Scaling/Load Balancing

## Rich Internet Applications

- HTML 5 / JS
- Adobe AIR
- Silverlight

# GeoREST

RESTful GeoSpatial Web Services

Open Source

[www.osgeo.org](http://www.osgeo.org)

Jason Birch, City of Nanaimo

# GeoREST

Different representations of GeoSpatial data

.html, .kml, .json, .xml. ...

Open API for editing geospatial features

WWW Search; opensearch

Multiple GeoREST services

GeoSpatial processing

HTML Forms

Templates

# GeoREST

## Open Source

MapGuide - [mapguide.osgeo.org](http://mapguide.osgeo.org)

FDO - [fdo.osgeo.org](http://fdo.osgeo.org)

Postgis, Oracle, SQL Server, kml, sdf, shp,...

ctemplate - [code.google.com/p/google-ctemplate/](http://code.google.com/p/google-ctemplate/)

libKML - [code.google.com/p/libkml/](http://code.google.com/p/libkml/)

zlib - [zlib.net](http://zlib.net)

POCO - [poco.org](http://poco.org)

# Why GeoREST

## Open Data

url; .html .kml .xml .gml .geojson .atom .georss , ...

## Open API

http; get; put delete, ...

## WWW search

Google search, ...

# Live Demo

Nanaimo Jason Birch;

Water Ljubljana; SharePoint Services Integration

.html; .xml; .kml - dynamic

Templates

buffer; intersect

multiple GeoREST

HTML forms

OpenLayers

Web editing; RSS

AutoCAD; MapGuide

# Questions?

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