

PrimaGIS: Web Mapping with Plone

Plone Conference 2006, Seattle

Kai Hänninen

Outline

— [GIS Basics

— [PrimaGIS Components

— [PrimaGIS Demo

— [Future of PrimaGIS

Getting Spatial

- [What is spatial data?

- Arbitrary data + location

- Metadata

- [Raster and Vector Data

- [Local and Remote Data Access

- Filesystem (Shapefile, GeoTIFF, ..)

- RDBMS (PostgreSQL, MySQL, ..)

- Web (Web Map Service, Web Feature Service)

Coordinate Systems

— [Different ways for expressing location

— [Reference frames

— [Spatial units

— [Example: Helsinki, Finland

Longitude: $24^{\circ}56'24''$, Latitude: $60^{\circ}10'12''$ (WGS84)

North: 6674929 m, East: 3385824 m (UCS)

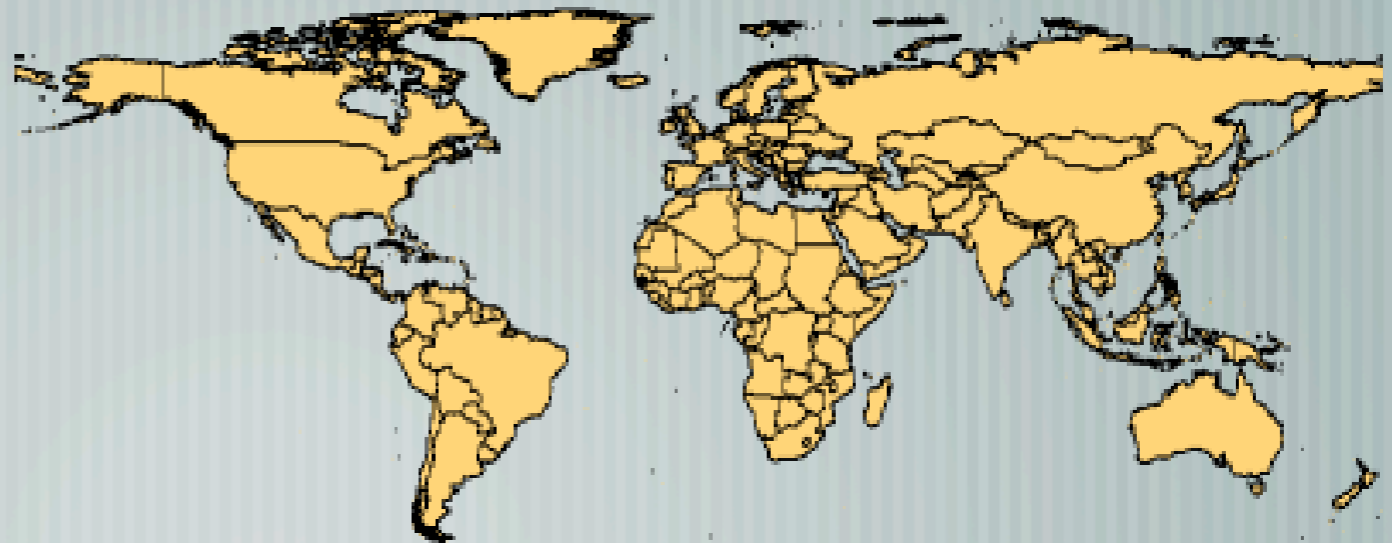
"80 kilometers north of Tallinn, Estonia"

Map Projections

— [Problem: Map coordinates from a 3D sphere to a 2D plane

— [Different projections for different use cases

— [Spatial Reference Systems (SRS)



PrimaGIS Components

PrimaGIS components	
Plone	PrimaGIS
Zope	Cartographic Objects for Zope (ZCO)
Python	Python Cartographic Library (PCL)

Python Cartographic Library

— [Rendering Engine

— [Feature Model: Points, Lines, Polygons, ..

— [Data Abstraction

— [Styling

— [Domain Objects: Data Stores, Layers, Symbolizers, ..

Cartographic Objects for Zope

- [Framework for developing web mapping applications in Zope
- [Map rendering service
- [Persistent data stores

PrimaGIS

— [Archetypes based web mapping application for Plone

— [AJAX driven UI

— [Spatial extensions for AT content types

— [Supports custom spatial content

— [Google Earth integration

Demo

Future of PrimaGIS

— [Rewrite of ZCO and PrimaGIS using the Zope 3 Component Architecture

— [Web Map Service (WMS) and Web Feature Service (WFS) server support

— [OpenLayers integration

— [GeoSpatial sprint after the conference!

Related Projects

- [Google Maps integration

- Plone Google Maps

- AT Google Maps

- Map Location

- [PleiadesOpenLayers

- [Plone World Kit

<http://plone.org/products/by-category/geospatial>

Questions?

<http://www.gispython.org/>