DSpace

A new way of handling geolocation based information

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What do we need?

Question

If life were a just computer game with awesome sensory input, which standard game features would be missing in our interface in order to play it well, especially when playing in groups?

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▶ A MiniMap

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- ▸ A MiniMap
- ▸ Instant group communication

Basemaps

screenshot and explanation for basemaps

Overlays

screenshot and explanation for overlays

Basic rules

Increase the likelyhood and efficiency of adding/sharing information by introducing a standardized framework like the W3c in 1993.

- ▶ Federation
- ▶ Free to use
- ▶ Open Source
- ▶ Lose Bindings
- ▶ Modular Extensions

Overlay ideas

- Urban Management
  - Emergency Response Management (First Responder Setup)
  - Hitchhiking (linking drivers/hikers in a sector - hitchwiki.org)
  - Real-Time public transportation information
  - Real-Time risk distribution
- Resource Management
  - Food Mapping/Sharing (mundraub/foodshare.org)
  - Dumpster Diving (trashwiki.org)
  - Fleet Management
  - Open Access Mapping (openwifimap.net)
- Organizing Events
  - Public congress/camp Overlay for visitors
  - Private engel Overlays for orga

Even more Overlay ideas

▸ Realtime Semantic Mapping Heat mapping twitter hashtags (i.e. heatmap #earthquake to find current EQ reports and positions)

▸ Private group overlays for the area of activity (i.e. MuCCC)

▸ Drone GCS Interfacing Localization and interactive Mission/WayPoint Management

▸ Entertainment Geocaching, AR-MMORPGs, AR-MMO-Strategy-Games

▸ Open Network Access Mapping Access Points (http://openwifimap.net)-http://map.pberg.freifunk.net/ + ham-radio repeater information

▸ ADS-B Airplane Mapping Overlay

▸ Use your imagination

What do we have?

Before we start to re-invent the wheel, let's have a look at what other generous people already have developed and shared with the rest of humankind.

Basemaps

OSM Rendered Map

Basemaps

OSM Rendered Map   DSpace self-rendered Map

Map Forge

- ▶ NodeJS
- ▶ Mapnik + TileMill + OSM-Bright
- ▶ PostgreSQL + PostGIS + imposm
- ▶ OpenStreepMap data
- ▶ NASA/CGIAR SRTM SIR-C-Band V41 90m Topo data
- ▶ DLR SRTM X-Band SAR 25m Topo data
- ▶ TerraSAR-X/TanDEM-X data (Future)

```
1  imposm -U gisuser -d gis -m \
2  /tmp/osm-bright/imposm-mapping.py --overwrite-cache --read --write --optimize \
3  --deploy-production-tables planet-latest.osm.pbf
```

Map Forge Screenshot

Include picture of Map Forge in action

Map Delivery

- ▸ NodeJS + TileStream

Map Delivery

Live DEMO

Read-Only

- ▶ Simple HTTP GeoJSON Feed
- ▶ SpaceAPI

Read-Write

▶ remotestorage.io

Navigation

- ▶ Routino
- ▶ OpenStreetmap import

Read-Write

- remotestorage.io

DSpace Client

Introduction on the Client

Javascript Dependencies

- Ender
- Underscore
- Backbone
- Bean
- Bonzo
- DOMReady
- RequireJS
- Qwery
- Morpheus
- Reqwest

Build Dependencies

- ▶ Almond (AMD)
- ▶ Handlebars
- ▶ CSSO

DSpace Client

Introduction on the Client