OpenStreetMap: Technical

4 November 2010, Sahana Camp
Fran Boon
fran@sahanafoundation.org

Agenda

- Copyright
- Features
- Tools
- Practical
- Vietnam

NB Although this session says 'Technical', OpenStreetMap is designed to be edited by amateurs rather than GIS professionals.

Copyright

- Do not copy copyright material

- Easter Eggs

- Yahoo Satellite Imagery is an exception

http://wiki.openstreetmap.org/wiki/Copyright

If copyright material is copied then this pollutes the database & the offending data needs to be removed.

Commercial map providers often place 'Easter Eggs' into their maps of places which don't really exist – if these are found in other maps then it is obvious that they have been copied!
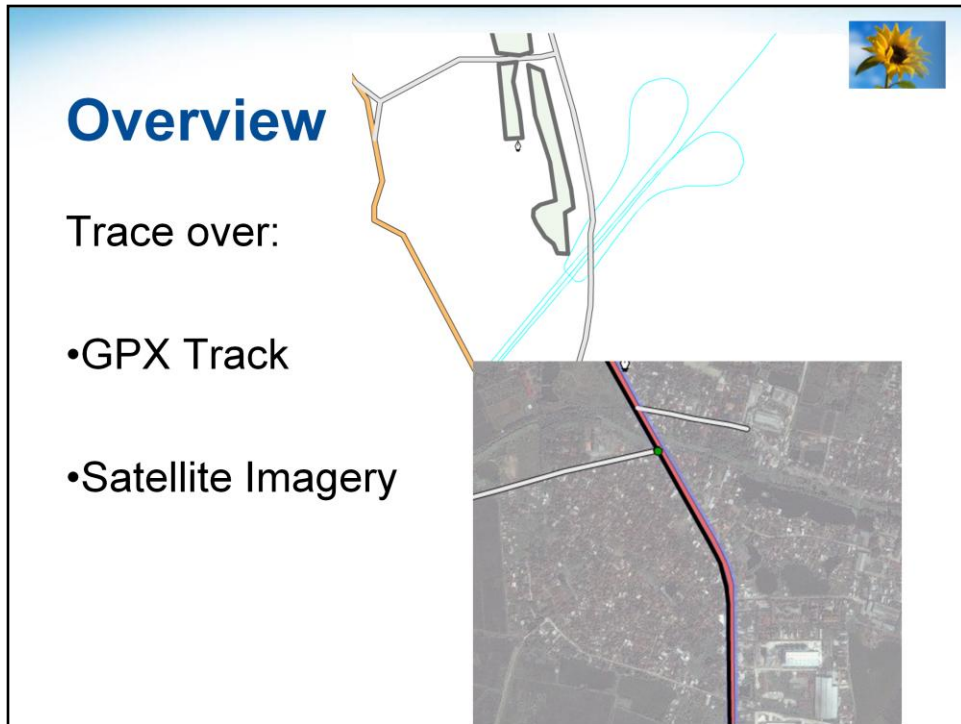
http://wiki.openstreetmap.org/wiki/Copyright_Easter_Eggs

Yahoo have given a specific permission to OpenStreetMap to use their Satellite Imgery for tracing.

Overview

Trace over:

- GPX Track

- Satellite Imagery

Tracing over Satellite imagery is sometimes called Digitisation

Elements

- Node ⬚
  - Bank, Restaurant, Shop
- Way ⬚
  - Street, Railway, River
- Area ⬚
  - Park, Lake
- Relation ⬚
  - Bus Route

http://wiki.openstreetmap.org/wiki/Elements

A *node* is the basic element of the OSM scheme. Nodes consist of latitude and longitude (a single geospatial point).

When used on a GPS, they are often called PoIs (Points of Interest)

A Way is a series of connected Nodes.

They are used to represent linear features such as streets, footpaths, railways, and administrative boundaries are referred to as ways.

An Area is a Closed Way which is tagged to indicate that it is an area, e.g. landuse=industrial

A Relation is a collection of related Elements.

Features (Tags)

name = Hà Nội
name:en = Hanoi

highway = primary
highway = residential
highway = track (unpaved)
highway = footway

waterway = river

amenity = fuel
amenity = parking
amenity = restaurant
amenity = school

shop = supermarket

office = ngo

place = village

Tags are key=value pairs.

Each Element can have multiple Tags associated with it.

Whilst any can be used, it is useful to use the ones which other people are using:

Full list of agreed Features:
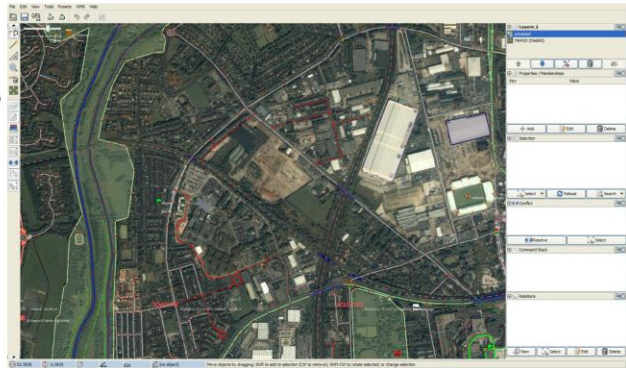
http://wiki.openstreetmap.org/wiki/Map_Features

New Features still being discussed:

http://wiki.openstreetmap.org/wiki/Proposed_features

JOSM

- Powerful offline editor
- Java, cross-platform
- Download chunks of data locally
- Edit
- Upload edits

http://wiki.openstreetmap.org/wiki/JOSM

OSMAnd

Android:

- Offline Map Viewer
- Editor
  - Add PoI
  - Add OSM Bug
  - Record GPX Track

If you hit the 'Edit' tab on the main www.openstreetmap.org site then this brings up the Potlatch online editor (written in Flash).

We are embedding & integrating the new version (Potlatch2) into Sahana, but the editor isn't quite ready & the integration is currently basic.

http://wiki.openstreetmap.org/wiki/Potlatch_2

The name potlatch means a 'giving away ceremony':

http://en.wikipedia.org/wiki/Potlatch

Practical

- Sign-up for an OpenStreetMap account
- Navigate to Hanoi
- Look for an area where you can add something which is missing
- Edit (with Save)
- Make your Edit(s)
- Save

To create your account:

https://www.openstreetmap.org/user/new

NB The account with which you edit the OpenStreetMap database is *different* to the account which you use to edit the OSM Wiki!

Check the Vietnam project page for local recommendations on Tagging:

http://wiki.openstreetmap.org/wiki/Vietnam

It will take a little while for your edits to show up on the main map as the tiles need to be re-rendered:

http://wiki.openstreetmap.org/wiki/FAQ#I_have_just_made_some_changes_to_the_map._How_do_I_get_to_see_my_changes.3F

http://wiki.openstreetmap.org/wiki/Vietnam

Hanoi well-mapped (Mapping Party held in 2009)

Mailing list quiet:
http://lists.openstreetmap.org/listinfo/talk-vi

Domain openstreetmap.org.vn : Available

- Could be used to set up a local server for faster access for local users (&, potentially, applying alternate styling)

End