

OpenStreetMap 1-imck1

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Freelance Software Developer

Openstreetmap

- free wiki map
- licensed under CC
- anyone can contribute

Why OSM?

- Geodata isn't
 - Free
 - Open
 - Current
- Wiki is obvious next step
- It's just fun

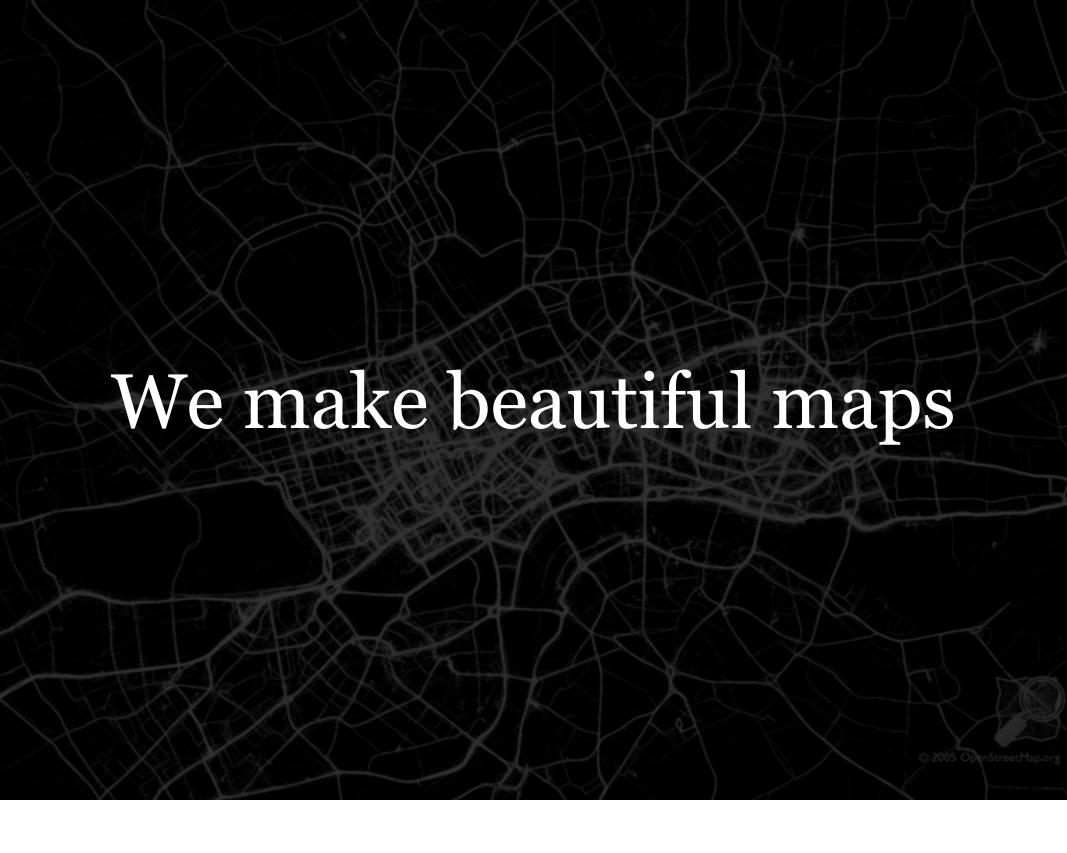
not free: We come from a EU perspective

We have excellent quality data, we just cant access it

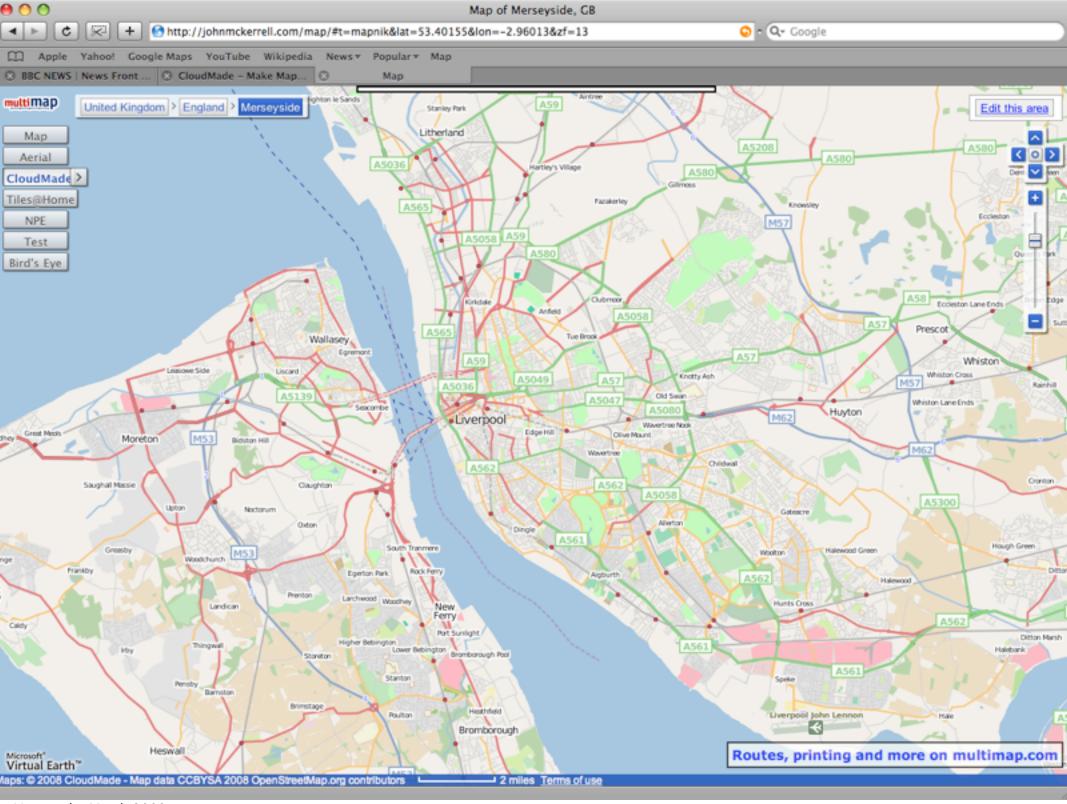
Governments compete in the private sector

current: large lag time between collecting data and it being on the web (can be years)

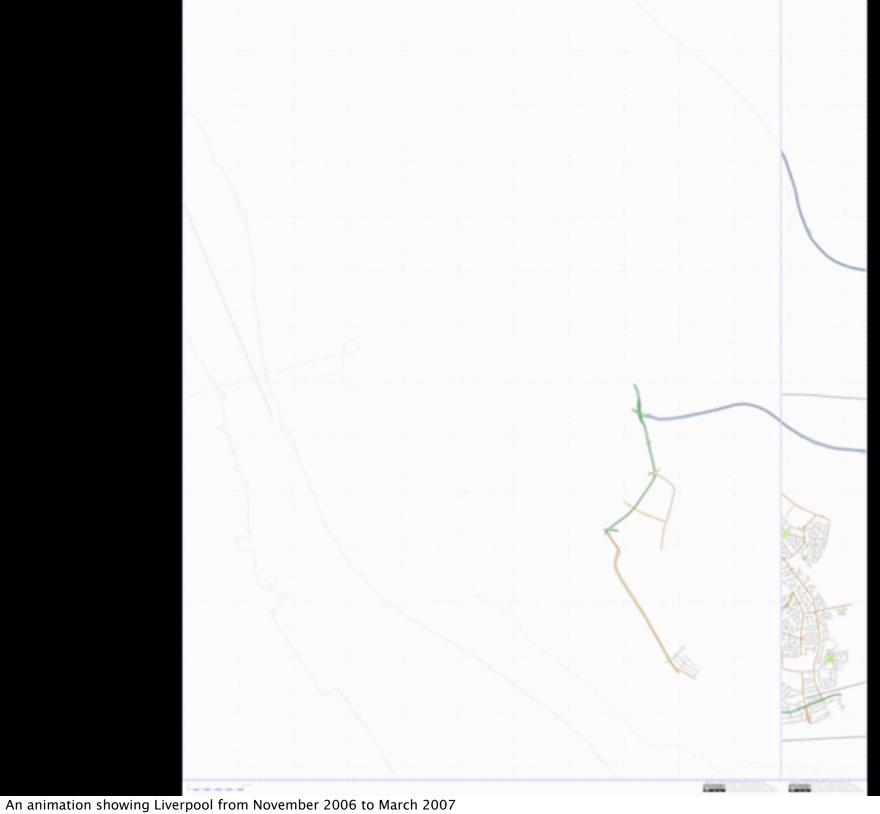
wiki: this should just be a wiki



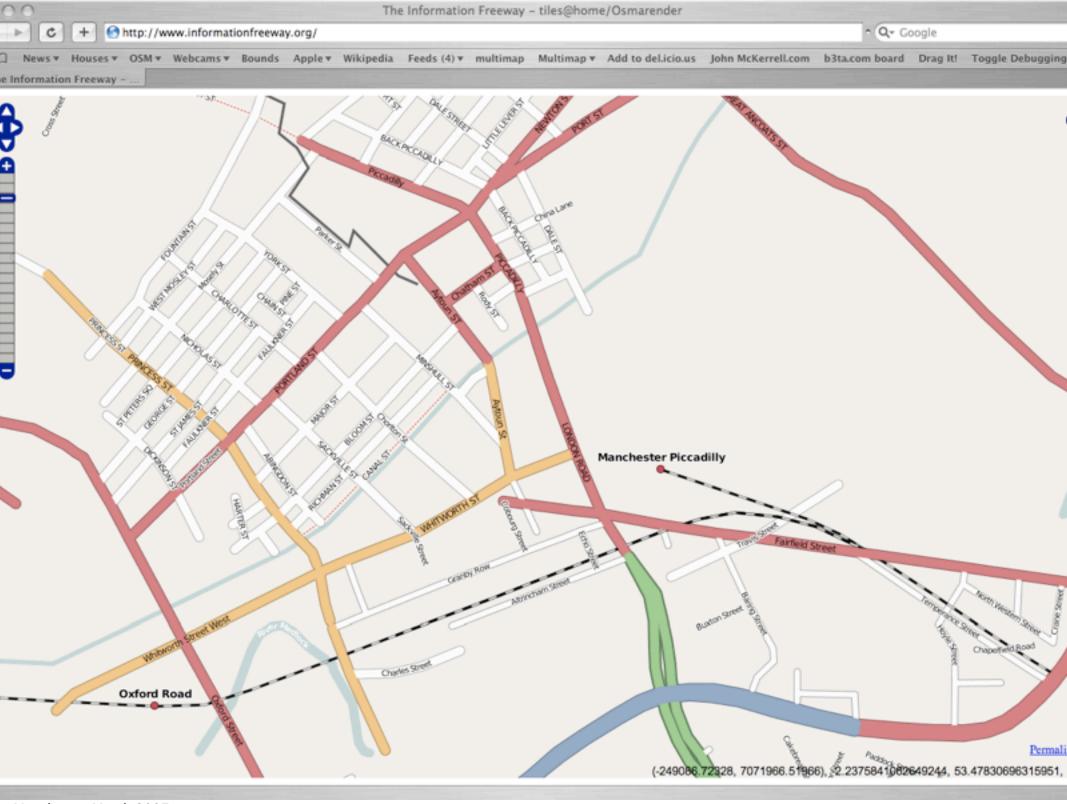




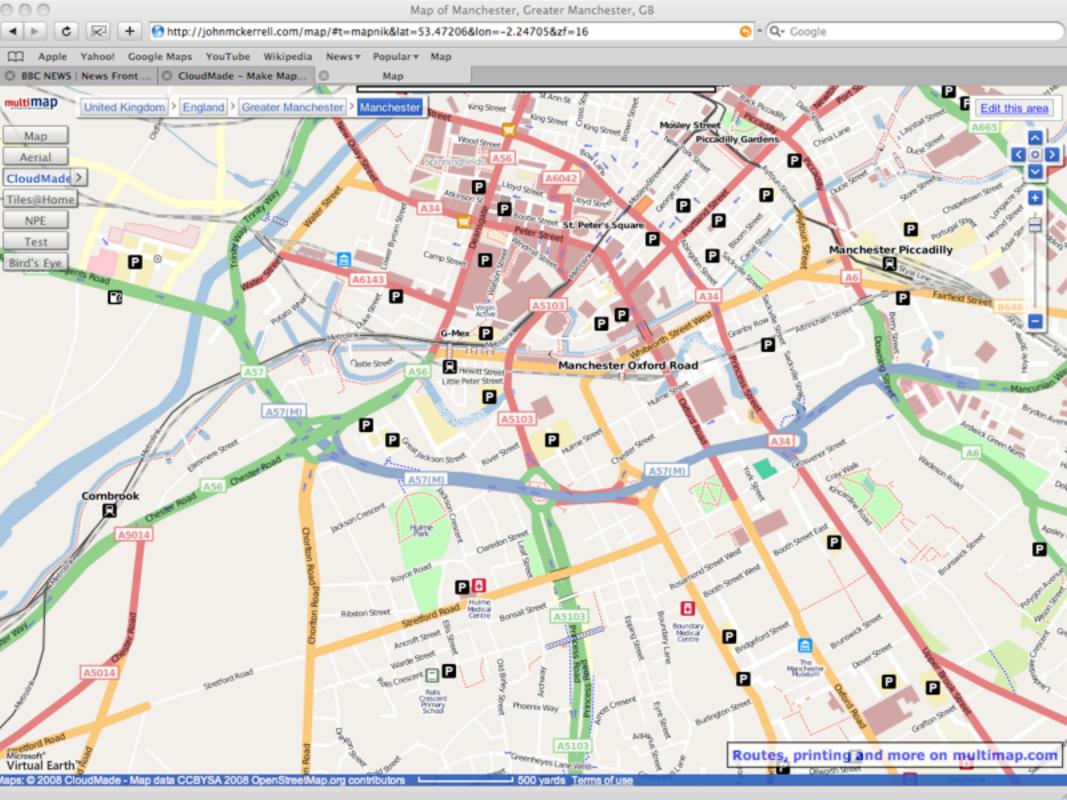
Liverpool - March 2009



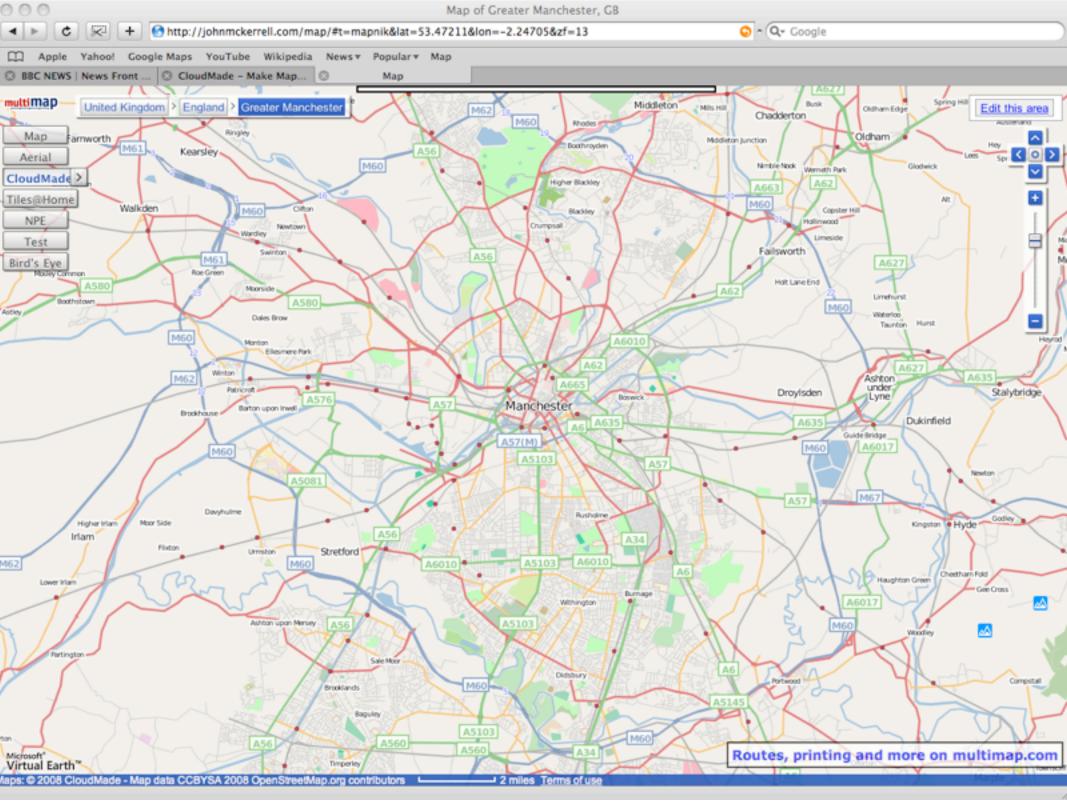




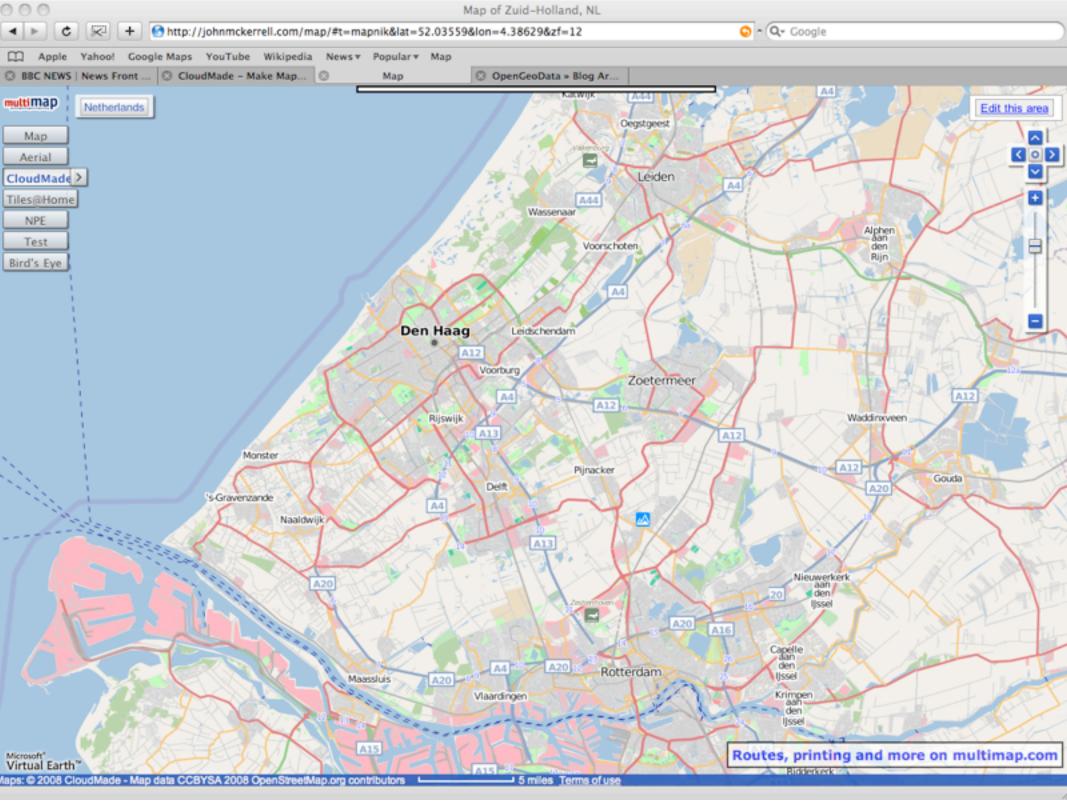
Manchester March 2007



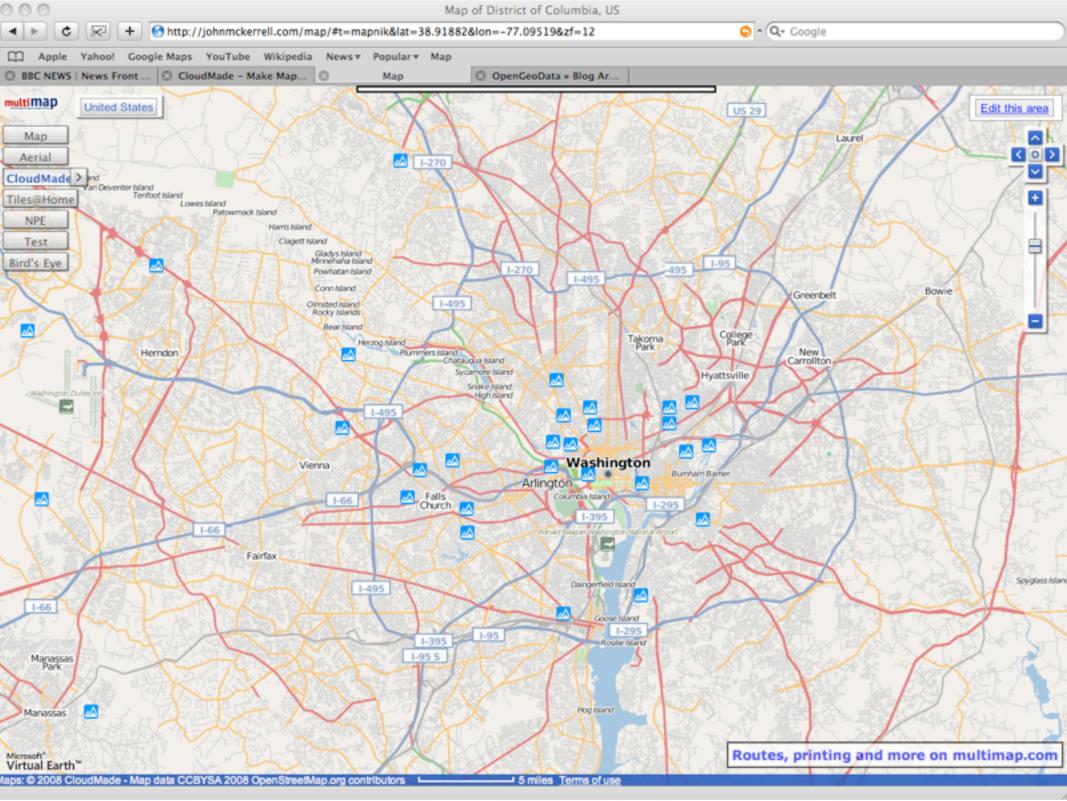
Manchester March 20092



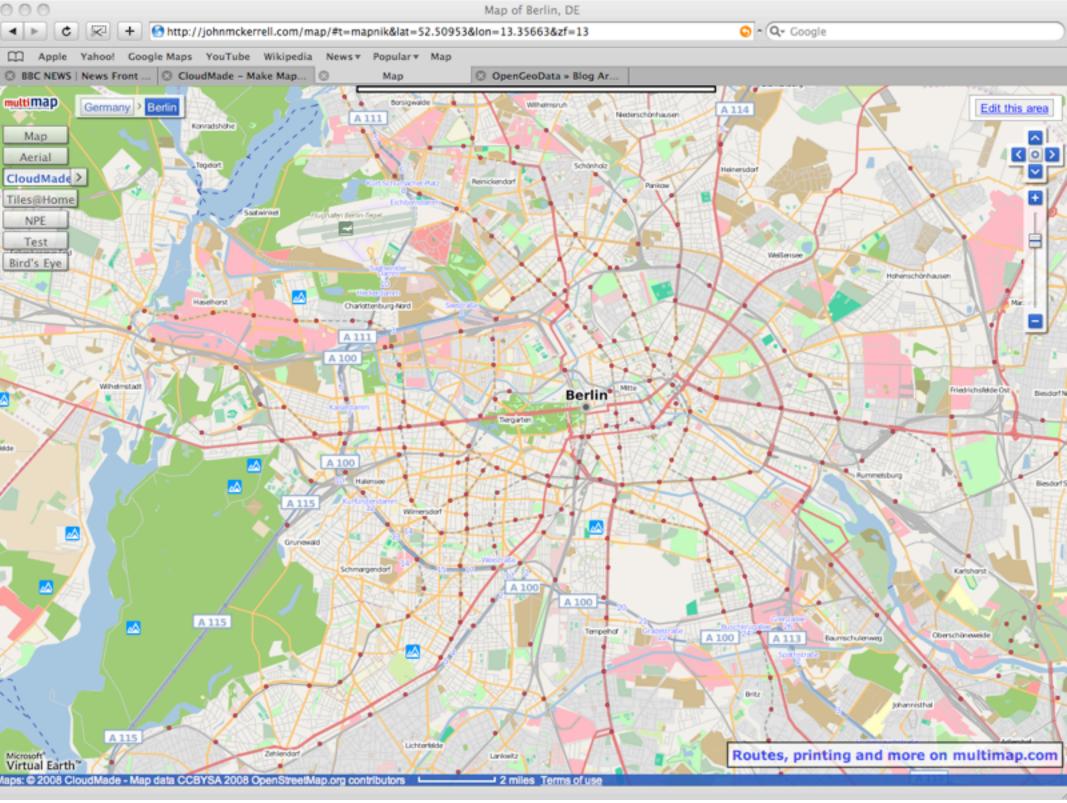
Greater Manchester March 2009 - Note the more affluent techy areas south of the city get more coverage.



The Netherlands was one of the first countries mapped after AND donated their entire Netherlands dataset. It wasn't perfect and contained mainly streets, no footpaths, but was a very very good base to build on.



The American government has a public domain dataset called "TIGER" which has now been imported into OSM, the quality varies a lot from state to state and county to county but it also provides a good base to work from.



Germany has now been mostly mapped including most of the towns and cities, by volunteers.

Some Quotes

Quote 1

"It's absolutely possible for a bunch of smart guys with the technology we have today to capture street networks, and potentially the major roads of the UK and minor roads"

Ed Parsons, ex-CTO Ordnance Survey currently Geospatial Technologist for Google

Quote 2

"If you don't make [lower-resolution mapping data] publicly available, there will be people with their cars and GPS devices, driving around with their laptops .. They will be cataloguing every lane, and enjoying it, driving 4×4s behind your farm at the dead of night. There will, if necessary, be a grass-roots remapping."

Tim Berners-Lee

Quote 3

"You could have a community capability where you took the GPS data of people driving around and started to see, oh, there's a new road that we don't have, a new route .. And so that data eventually should just come from the community with the right software infrastructure."

Bill Gates

Workshops

Or, Map as Party

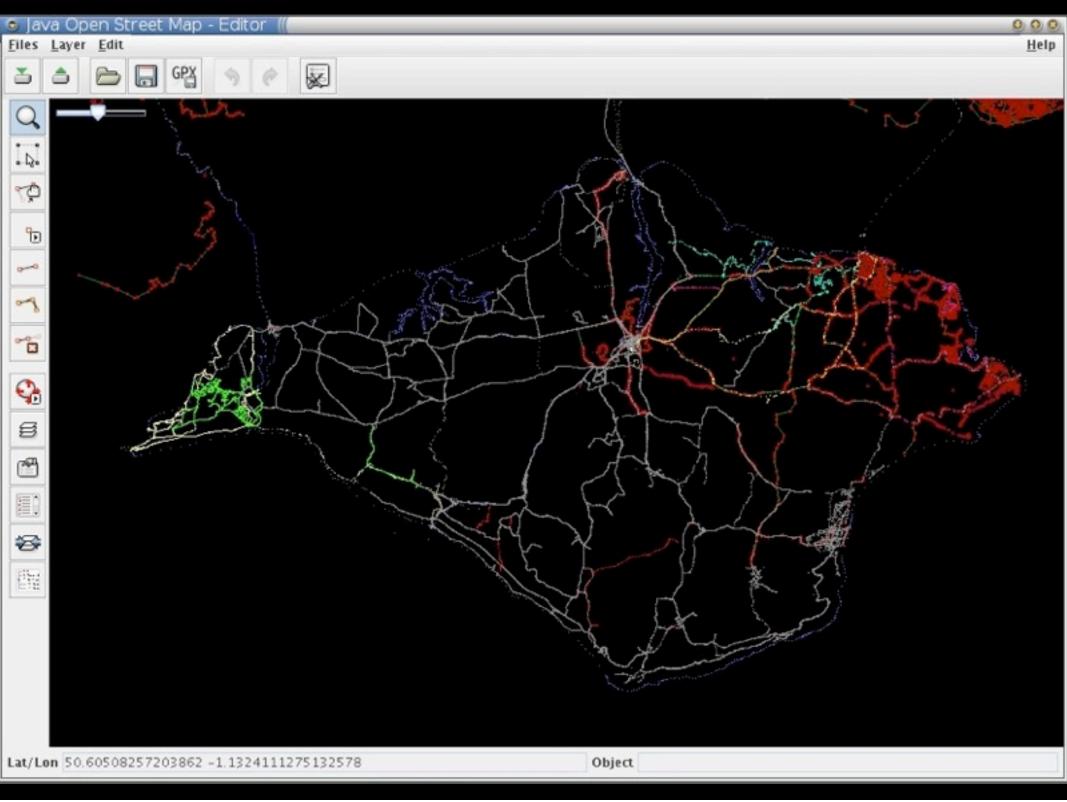
© 2005 OpenStreetMap.o



The Isle of Wight is an island on the south coast of the UK OSM workshop, rented some cottages 30-40 people who mapped it in a weekend



This is what we could use
A map from 1941
Crown Copyright lasts 50 years, so this is in the public domain
Maps of this era miss big things like Heathrow Airport, motorways



GPS traces from a single day, each colour identifies a different person, you can see how things are beginning to take shape



The resultant map, looks really good and contains much of the detail you would expect from a large map provider.

OpenStreetMap

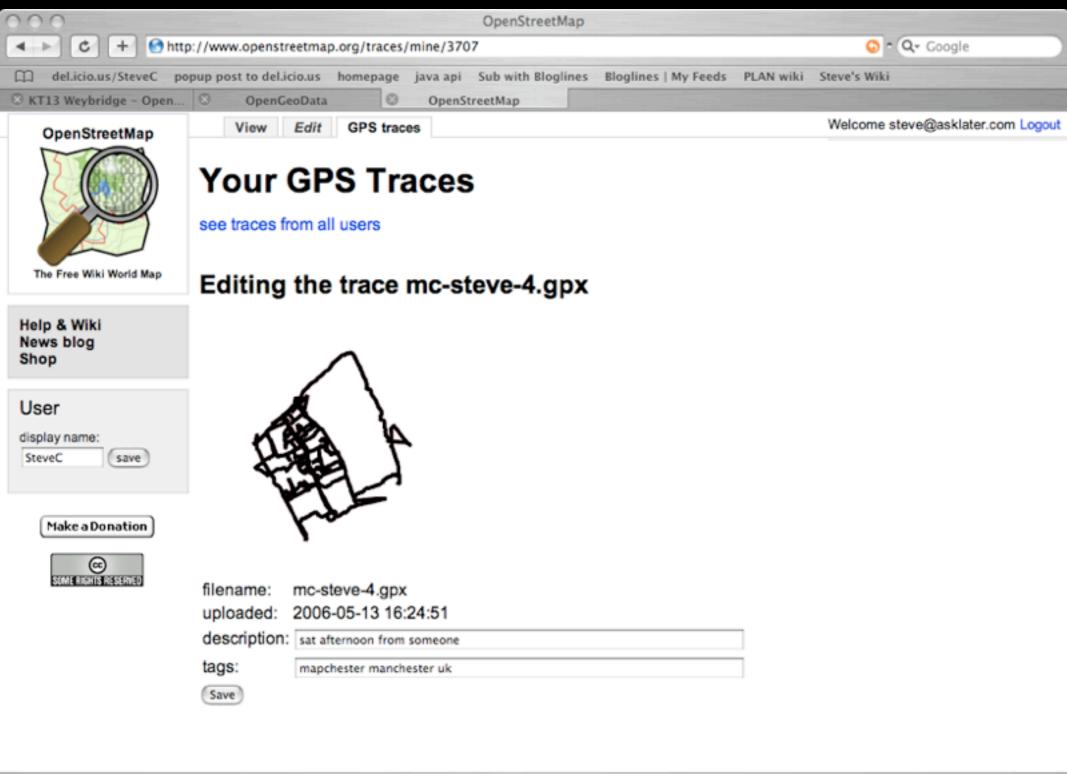
Liverpool Mapping Party November 2007

Creative Commons CC-BY-SA 2.0

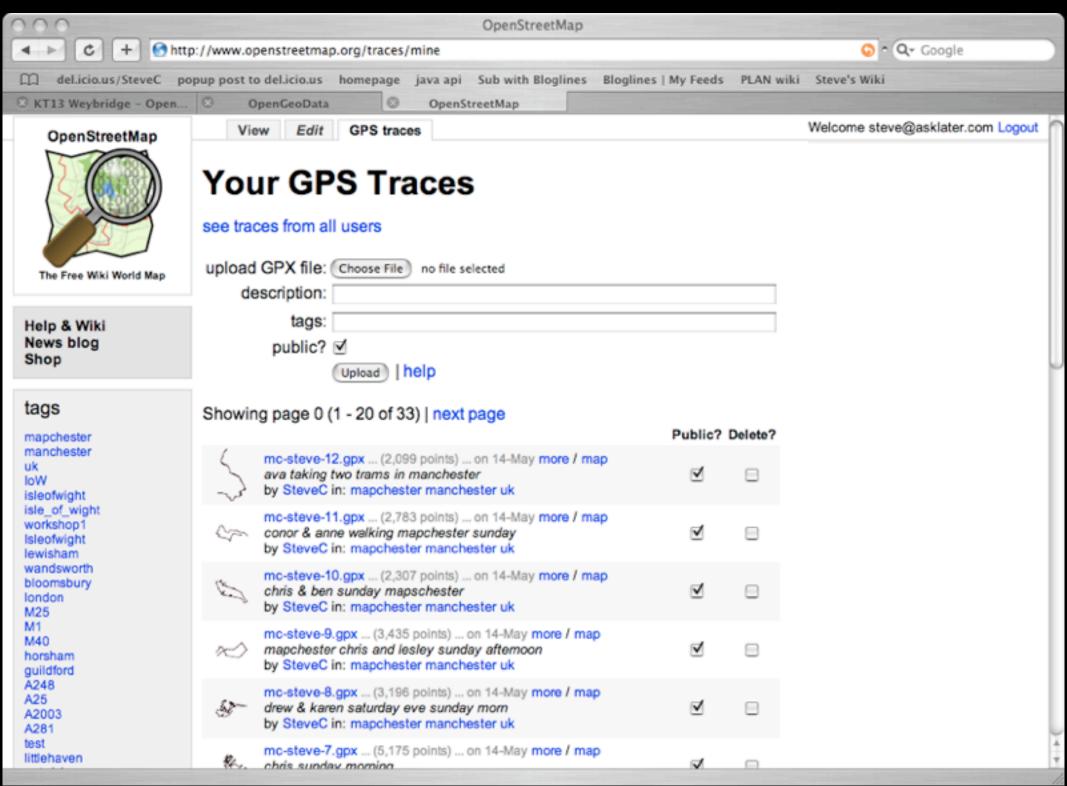
A video showing GPS traces collected at the Liverpool Mapping Party.

Using OSM

© 2005 OpenStreetMap.o



this is a GPS trace delicious-like sharing of traces



We publish geoRSS of all these things

Data Model

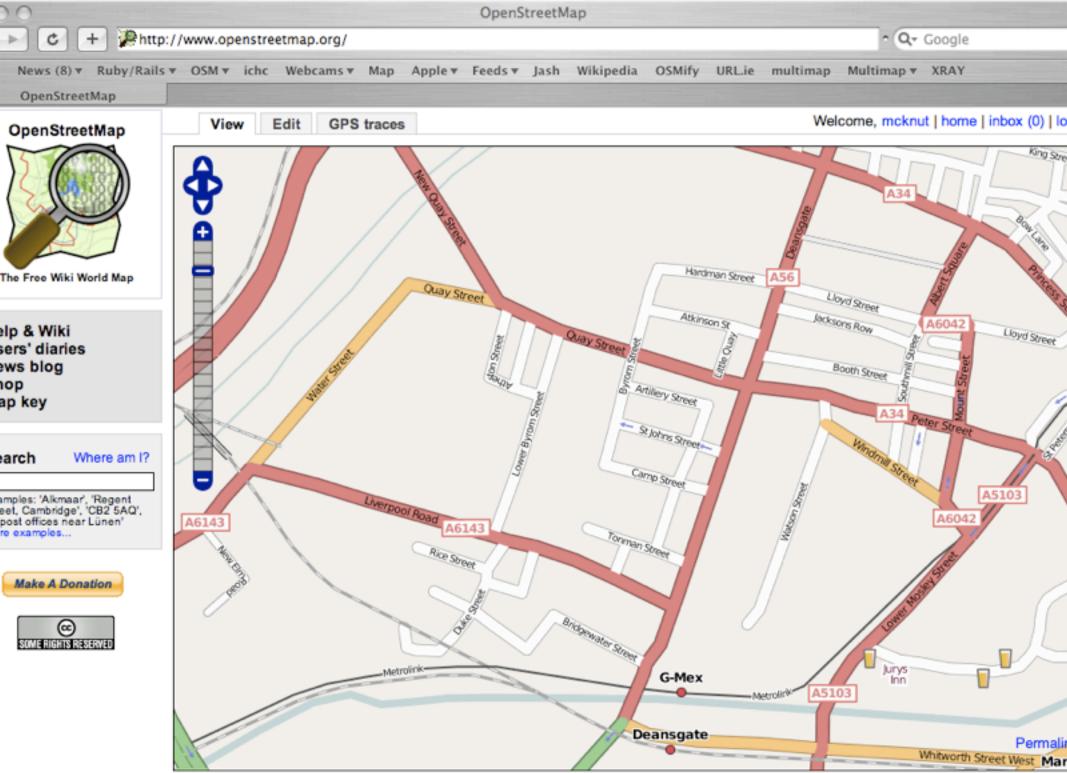
- Nodes
 - •Single point on the earth Latitude and Longitude
- Way
 - •Ordered list of nodes which together make up a long line or an enclosed area
- Relation
 - •A method of relating multiple ways and nodes together, e.g. "turning from way A to way B using node C is not allowed"

Data in the database is stored under this data model.

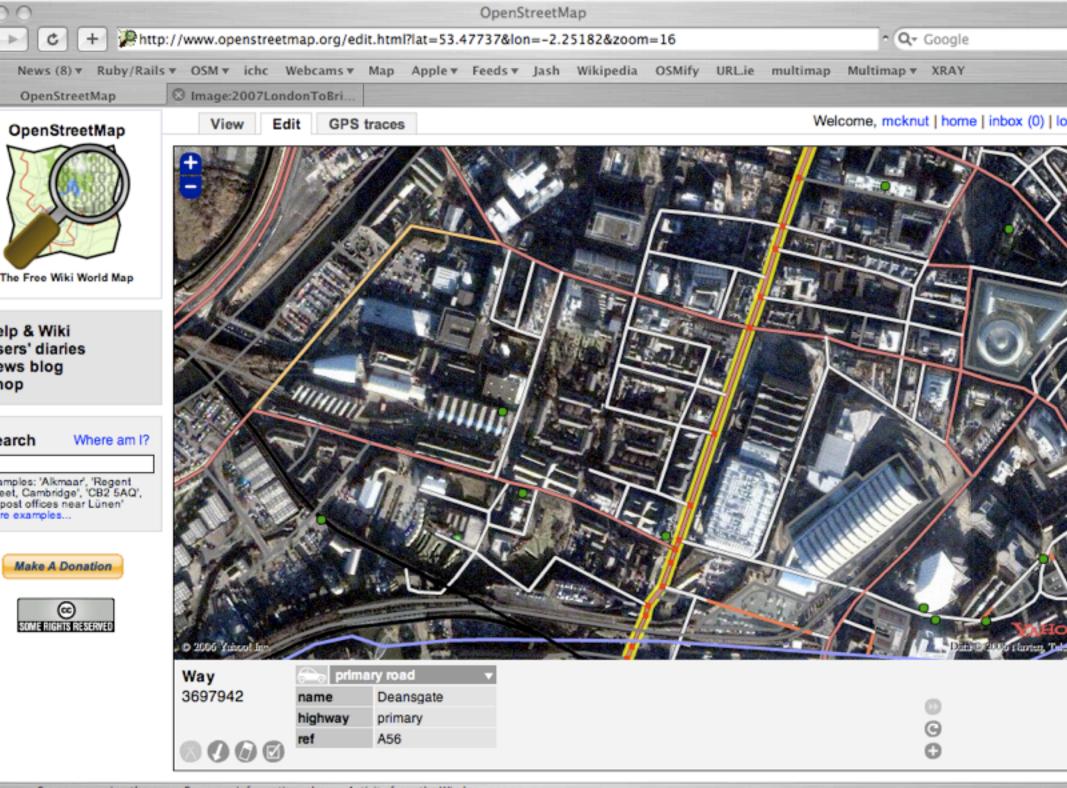
Data Model

- Tags
 - •Nodes/Ways/Relations can have key=value pairs attached to describe their properties.
 - •Example node tags:
 - •amenity=place_of_worship, religion=buddhist
 - •amenity=post_box
 - •Example way tags:
 - •highway=primary
 - •oneway=yes

Tags are essentially freeform, you can put whatever you want in them but it's advised to check what other people are using so that what you tag shows up on maps. See the "Map Features" page in the wiki for more information.

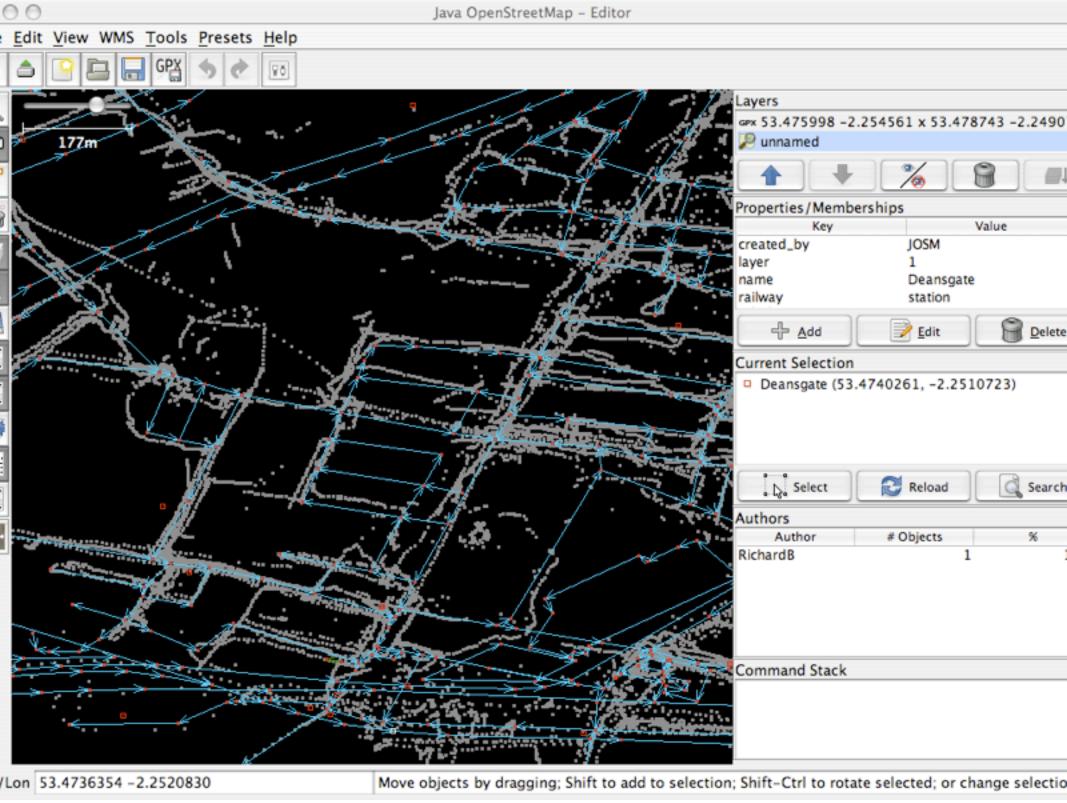


OSM homepage showing a map of central Manchester



e were 5 errors opening the page. For more information, choose Activity from the Window menu.

The potlatch online flash editor allows you to edit OSM data on top of aerial imagery through a special agreement between OSM and Yahoo! Here you can see the roads overlaid on the imagery, colour coded, with one of the roads – "Deansgate" – selected and therefore highlighted. The tags for that road show on the bottom.



JOSM is an alternative offline editor. This editor is Java so works on most systems. The grey dots are GPS traces while the red dots are nodes and the blue lines are ways. Many plugins are available allowing features such as validation, colour coding and aerial imagery import. The "Deansgate" train station node is highlighted in white towards the bottom and the tags are shown on the right.

Getting Involved

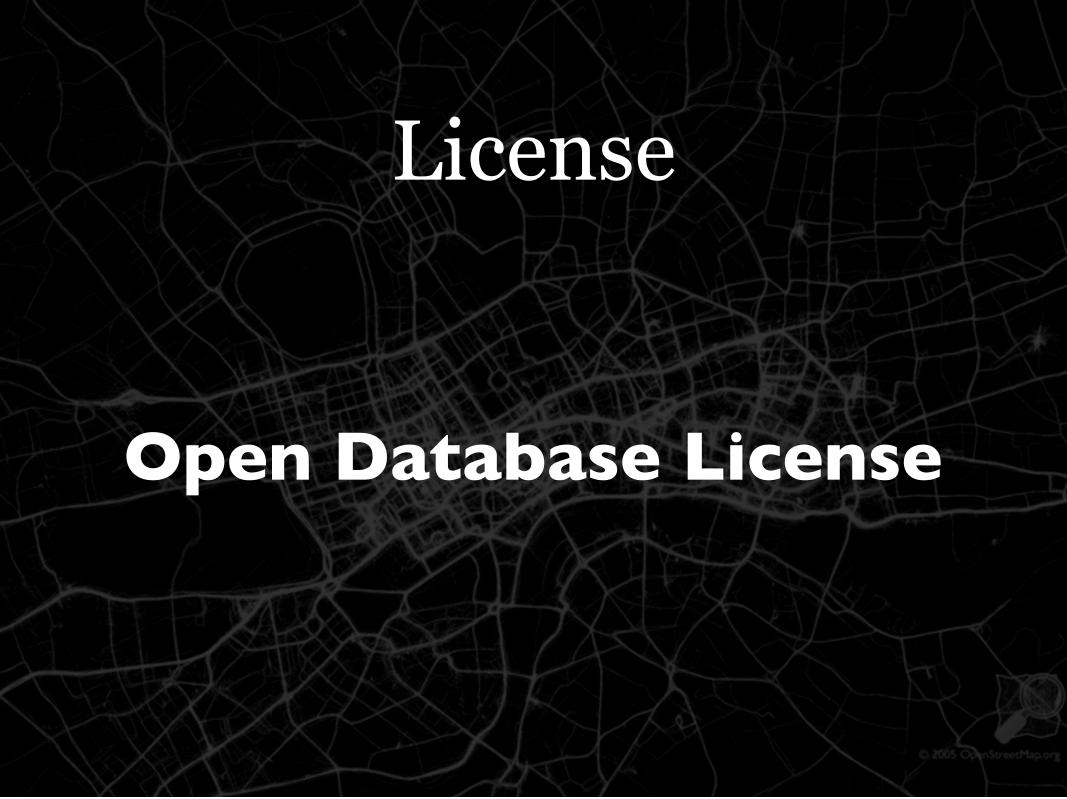
- Head over to here and sign up:
 - http://www.openstreetmap.org
- Head over to here for help and information
 - http://wiki.openstreetmap.org
 - http://wiki.openstreetmap.org/index.php/Map_Features



License

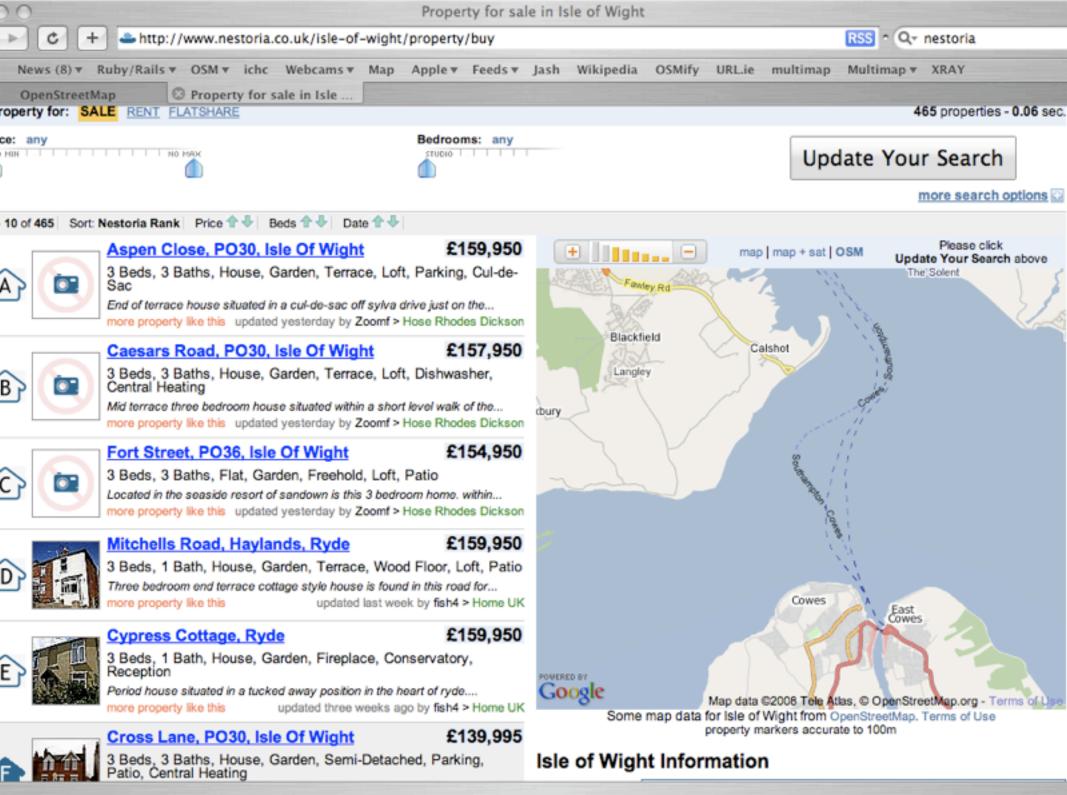


The data is currently licensed under a Creative Commons – Attribution – Share Alike license. Unfortunately this license is not well suited to a database and so the intention is to switch to the Open Database License.

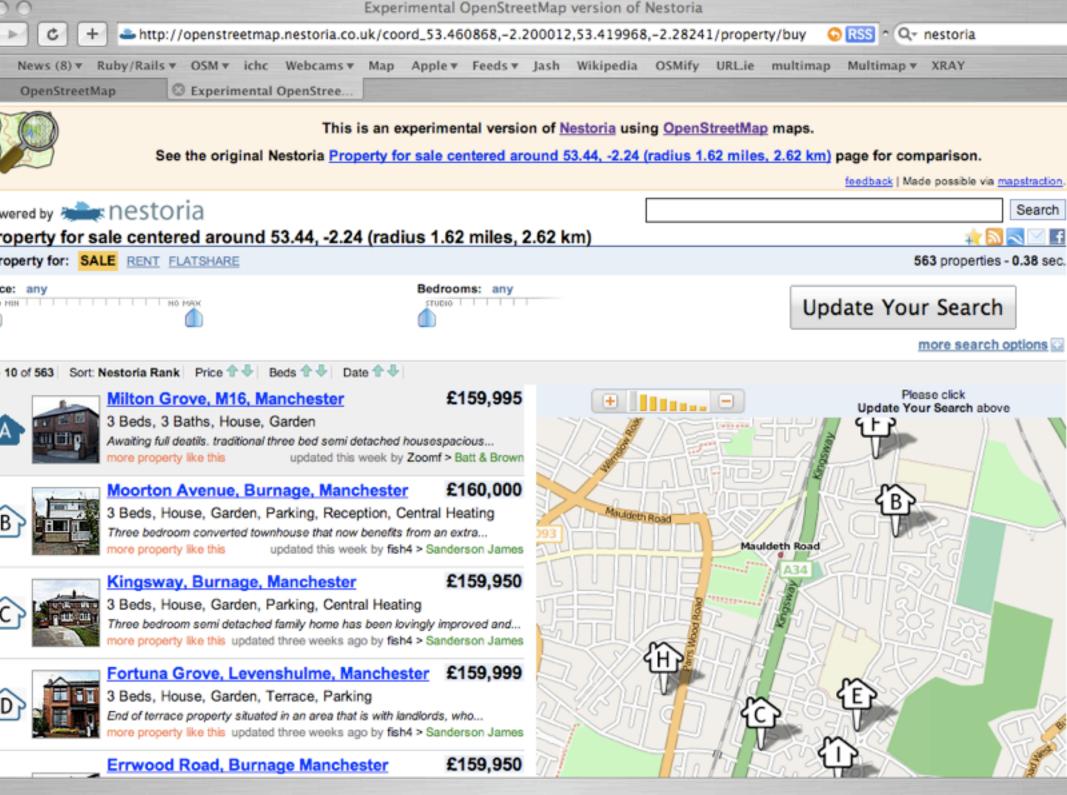


The Open Database License has been created with involvement from OSM and should be much better suited to our needs.





Nestoria have been using OSM for years because Google did not have good maps of the Isle of Wight, whereas OSM did. They simply integrated the OSM tiles into their existing Google maps viewer.



More recently they have created a version of the site which only uses OSM data. In many locations this works great and gives access to the rich data provided by OSM.



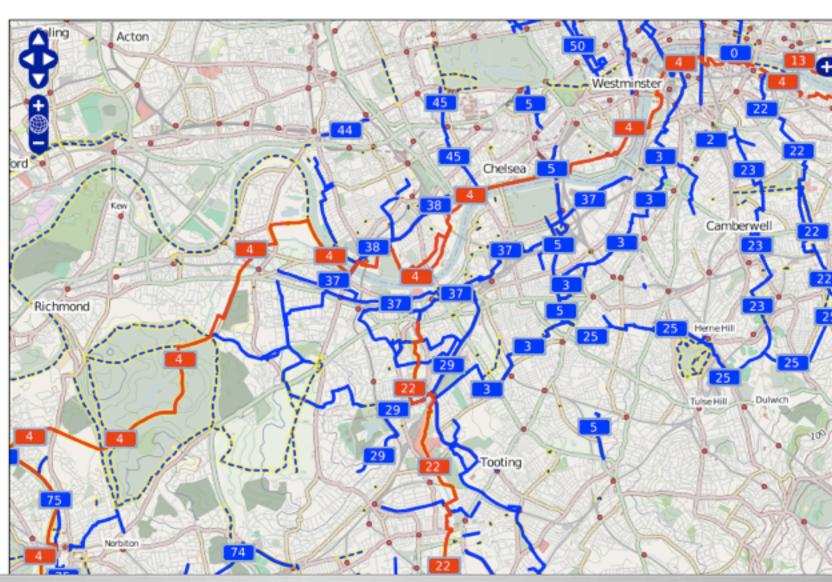
M Cycle Map

y and More Info do List

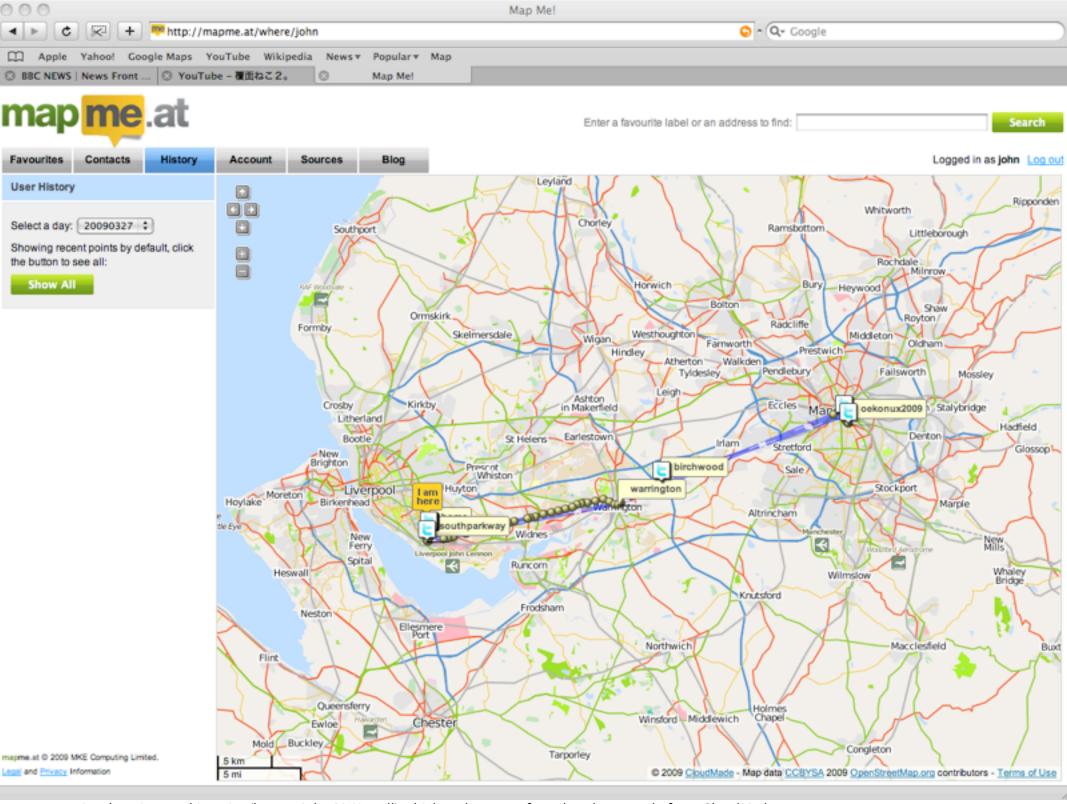
p data licensed CC-BY-SA enStreetMap penStreetMap Foundation

penStreetMap Foundation d contributors)

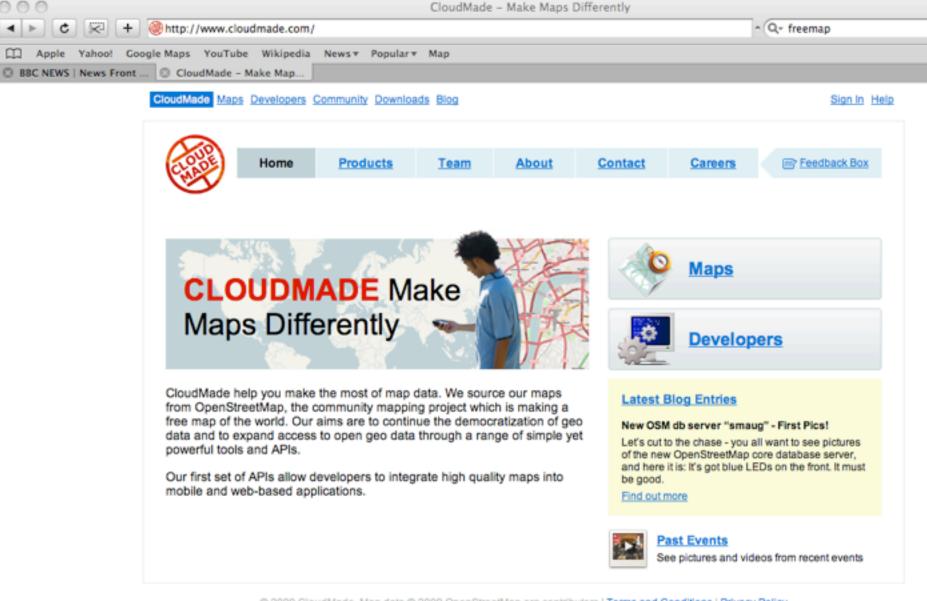
are your current view of the up by clicking on Permalink!



OSM's rich dataset can be rendered in many different ways. This shows a cyclemap rendering which has the normal map features toned down and the cycle routes highlighted.

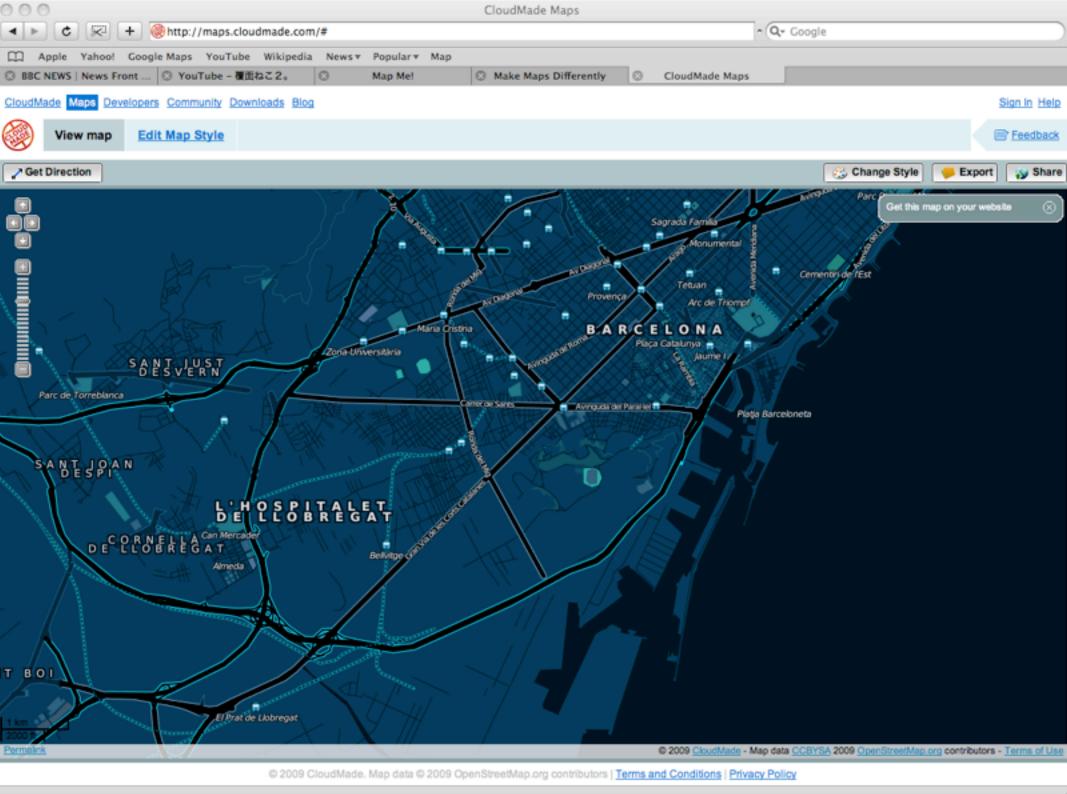


mapme.at is a location tracking site (by me, John McKerrell) which makes use of a tailored map style from CloudMade

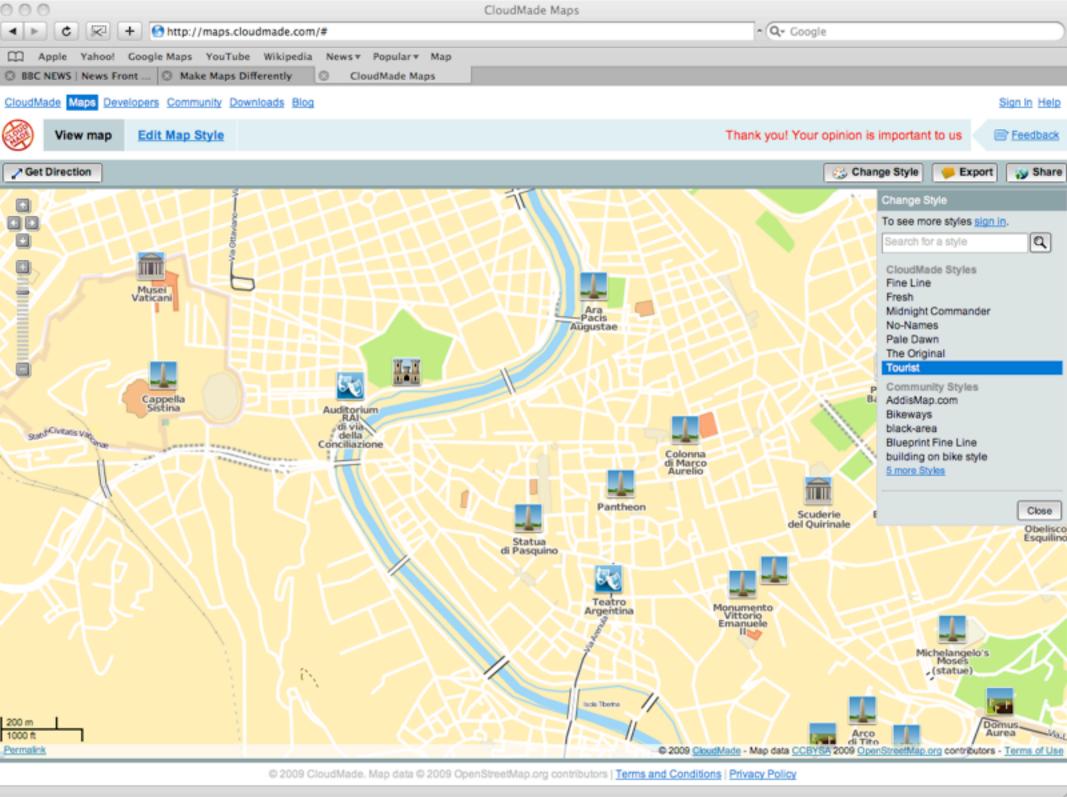


© 2009 CloudMade. Map data © 2009 OpenStreetMap.org contributors | Terms and Conditions | Privacy Policy

CloudMade is a company founded by Steve Coast, the founder of OSM, and Nick Black, a long time contributor and developer, they are looking to commercialise and promote the use of OSM by other companies and individuals.

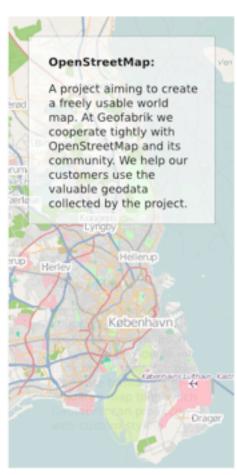


They provide a number of different map styles by default, rather than the 1 or 2 offered by existing commercial mapping providers, this is the "Midnight Commander" style inspired by maps seen in movies.



This is the "Tourist" style map which tries to show the items of interest to tourists, including points of interest, while not overloading them with information they don't care about. CloudMade also offers a "Style Editor" allowing you to make your own custom styles of map, like that seen on mapme.at





Understand how to use OpenStreetMap for your business needs.

At Geofabrik - German for "geo factory" -, we extract, select, and process free geodata for you. We create shape files, maps, map tiles and full-blown web mapping solutions. We provide advice and training to our customers dealing with OpenStreetMap and keep them up to date.

If it is about OpenStreetMap, Call the experts. Give us a ring or send us an e-mail.

GEOFABRIK

Neue Auflage des OpenStreetMap-Buches erhältlich Die 2., überarbeitete und erweiterte

Auflage unseres Buches "Ope...

Geofabrik Tools Revamped

We have added a slippy map and a map comparison view to our tools pag...

 Oberpfalz macht Fortschritte (This posting refers to a high-profile, ongoing tracing activity in Ge...

OpenStreetMap

Die freie Weltkarte nutzen und mitgestalten. Von Frederik Ramm und Jochen Topf.



FOSSGIS 2009 17. bis 19. März in

German project page

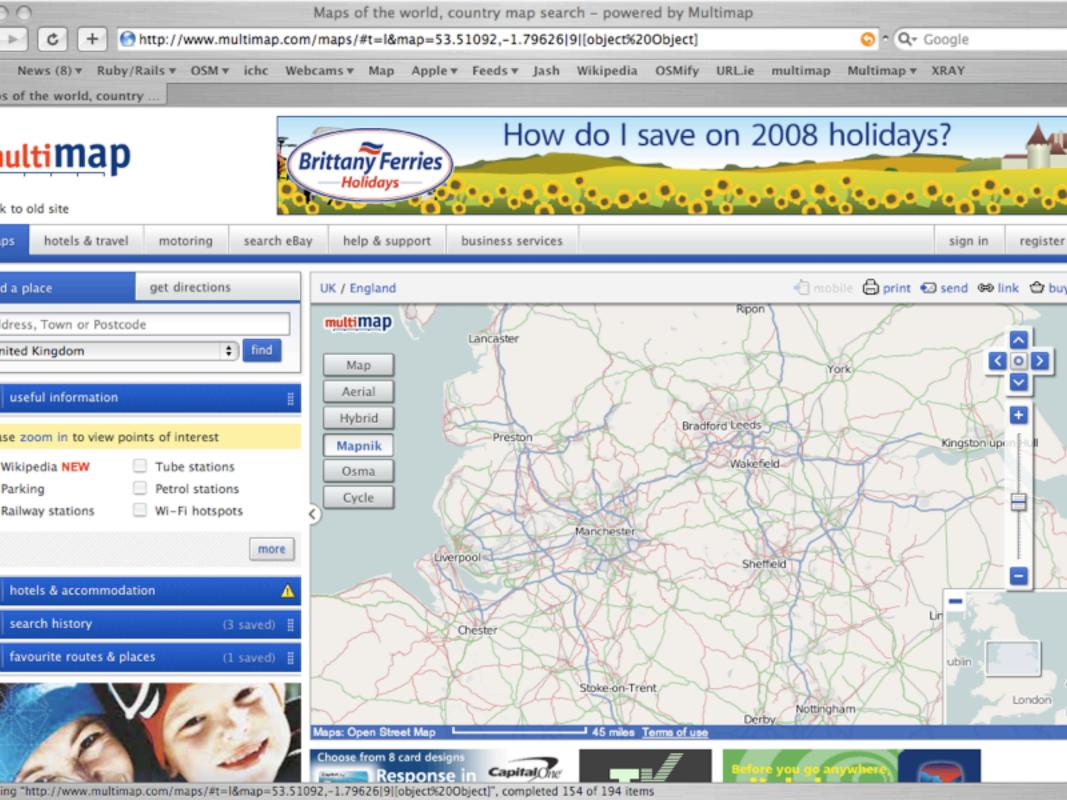
International project page

Map

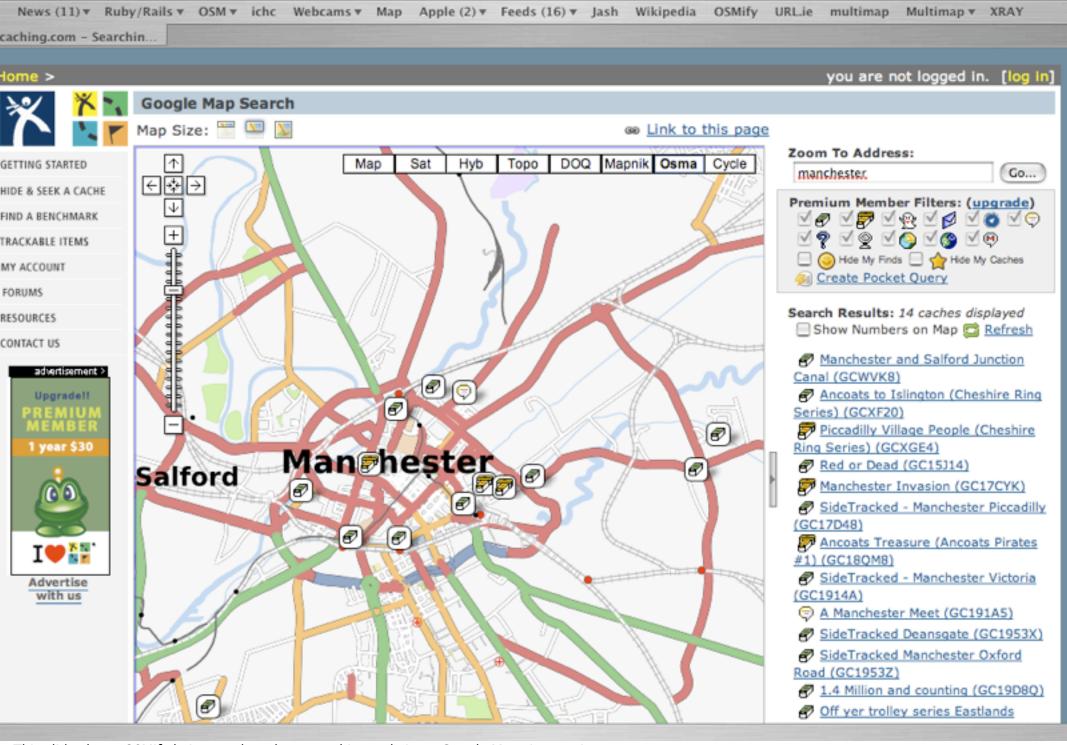
Meta

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Geofabrik was founded by OSM contributors Frederik Ramm and Jochen Topf, it aims to promote the use of OSM commercially, they have published a German language book to achieve this aim.



A JavaScript bookmarklet - OSMify - has also been created by me (John McKerrell) which allows you to view OSM tiles on many different map sites using the big three mapping APIS, this slide shows OSMify in action on the Multimap homepage.

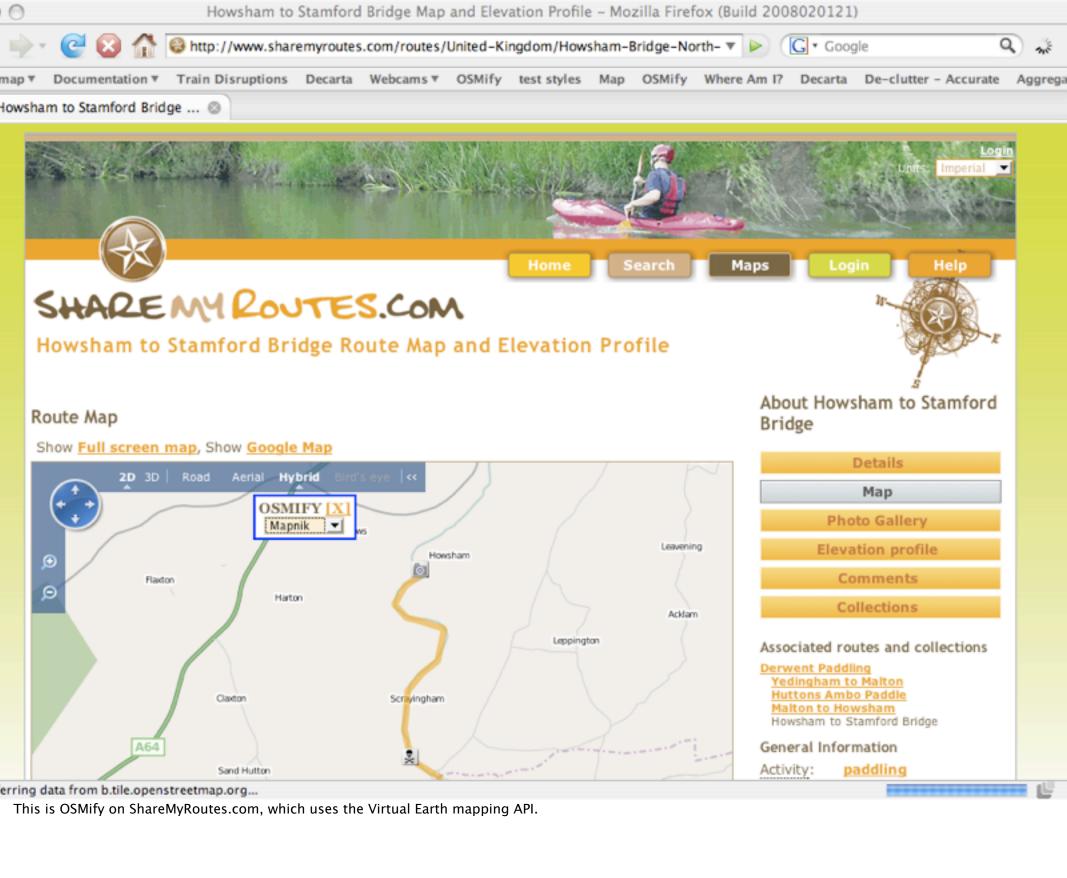


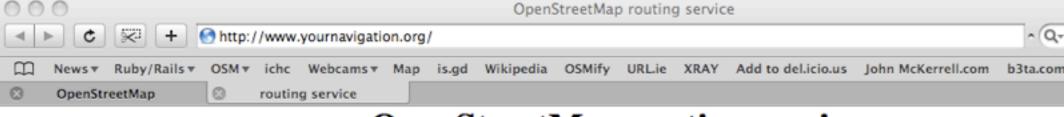
Geocaching.com - Searching with Google Maps...

http://www.geocaching.com/seek/gmnearest.aspx?lat=51.41363&lon=-0.36457

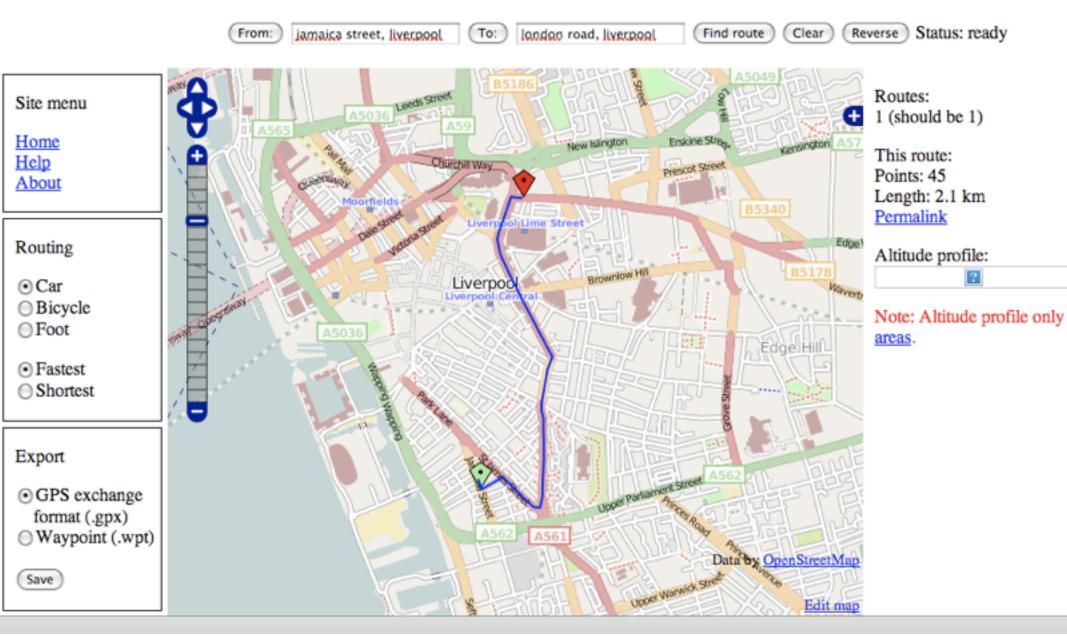
Google

This slide shows OSMify being used on the geocaching website, a Google Maps integration.





OpenStreetMap routing service



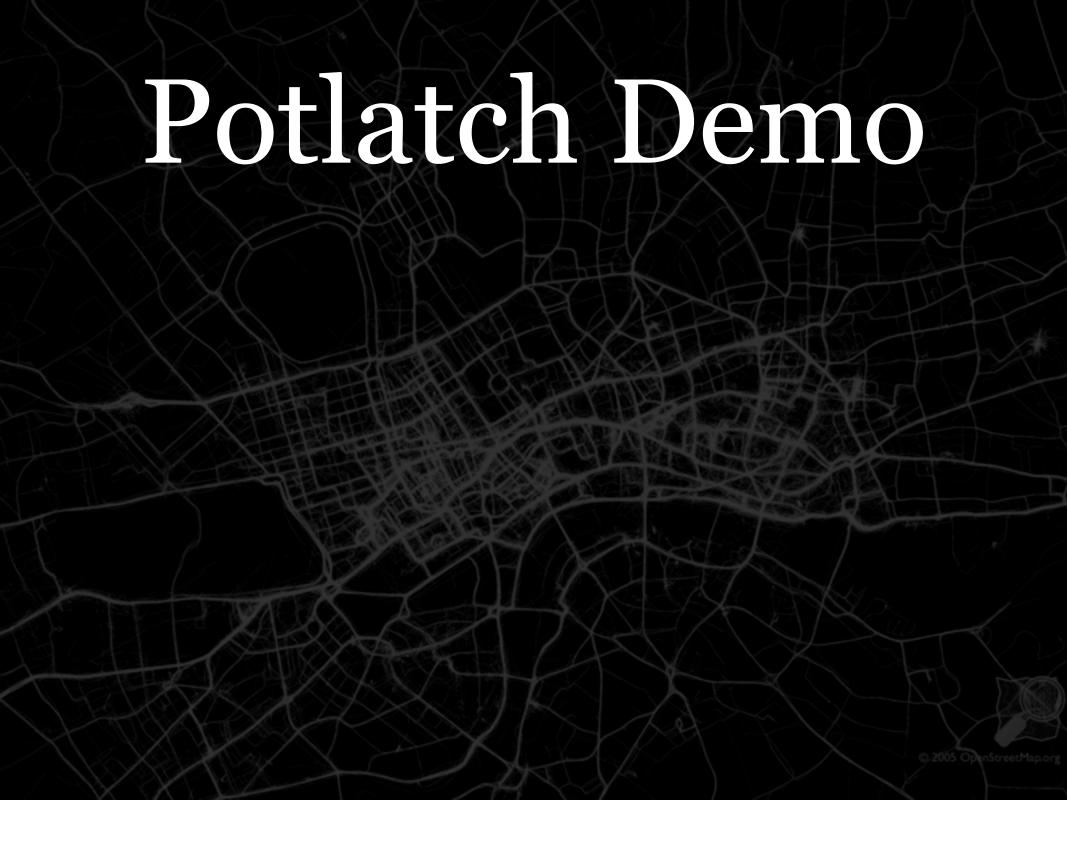
OSM data can also be used to create routing engines, a number of engines are available including this one.



This image shows all the GPS points in the database for Europe at some point in 2008.

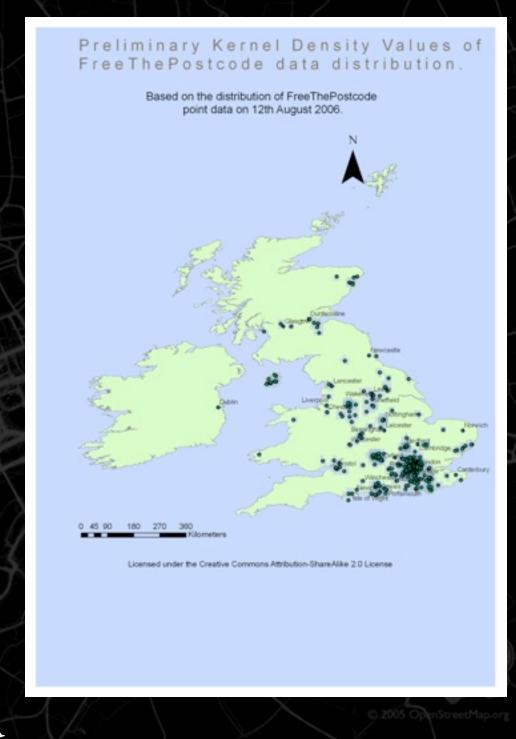
Links to Demos

- http://openstreetmap.nestoria.co.uk/
- •http://www.gravitystorm.co.uk/osm/
- •http://www.cloudmade.com/
- •http://mapme.at/
- •http://blog.johnmckerrell.com/ OSMify



Postcodes!?

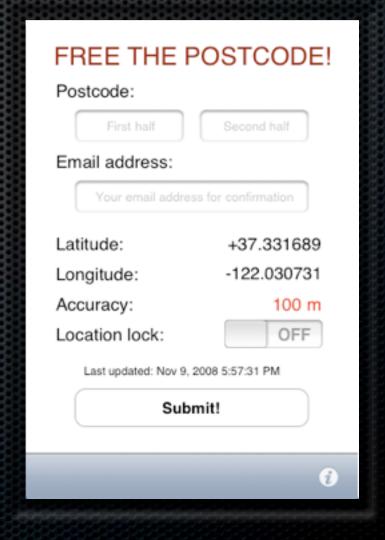




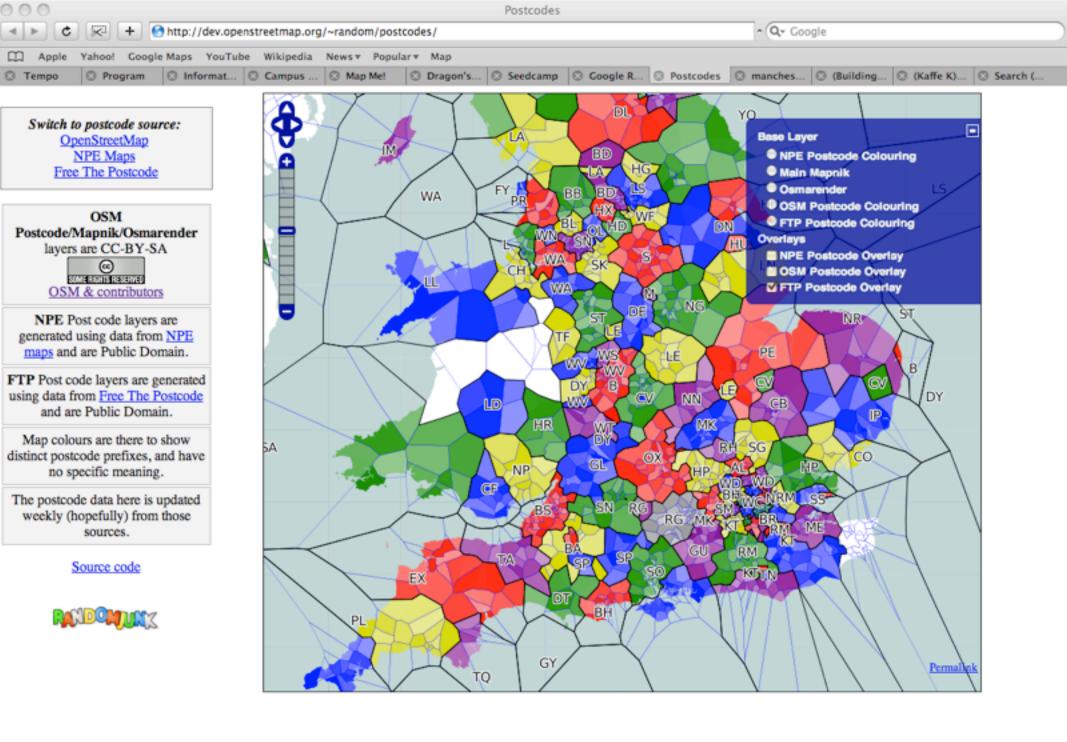
Postcodes are also not free in the UK so freethepostcode.org was setup to collect these.

iFreeThePostcode

- Puts collection of postcodes and locations into one app
- Simplifies submissions
- Increases number of contributors



There is now an iPhone app as well as J2ME clients and an Android app to make collection easier.



This image gives an idea of the coverage of freethepostcode.org.



Thanks for listening

John McKerrell john@mckerrell.net

with thanks to Steve Coast - steve@cloudmade.com for original slides

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