OSM applications in the Debian GIS project
How Debian supports OpenStreetMap applications

Andreas Tille
Debian
LSM, Montpellier, 11. July 2014

1. Short introduction of Debian GIS Blend
2. The people caring for OSM software in Debian
3. OSM workflow
   - Trip preparation
   - On your trip
   - After collecting data on the trip
   - Hosting your own OSM server

Purpose of Blends
- Making a certain topic "hot"
- Debian GIS attracts GIS and OSM users to Debian
- Teach users & developers how to work together with Debian since they can contact the Debian GIS team

A Blend is a way to advertise Debian in a specific work field

Debian GIS advertises Debian to OpenStreetMap users & mappers as well as GIS experts

Why OSM inside Debian GIS Blend?
- perfectly possible to have its on Blend for OSM
- matter of critical mass
- following the example of biology inside Debian Med
- complex packaging tasks are profiting from developer team

Turn Debian into the distribution of choice for OSM users
Top 10 Uploaders of Debian GIS

Top 10 Debian GIS developer discussion

Top 10 bug hunters of Debian GIS packages

Top 10 contributors to VCS

Team

Waking up in the morning and realising that somebody else has solved your problem from yesterday
Why two packaging teams

- packaging GRASS was historic root of Debian GIS
- pkg-grass name simply came up first
- there are people who consider OSM different enough to create a separate packaging team pkg-osm
- turned out that there is quite some common set and splitting man-power does not make sense
- packages maintained by pkg-osm will be merged into pkg-grass repository that remains the single Debian GIS repository

mkgmap: generate Garmin maps from OpenStreetMap data

- create gmapsupp.img files from data
- useful for instance when using OpenMTBmap

QLandkarteGT: plan your trip

- GPS mapping (GeoTiff and vector) and GPS management
- drivers for Garmin devices are in qlandkartegt-garmin package
- useful for testing selfmade Garmin maps
- serves as a frontend to the GDAL tools
- straightforward interface
- suited for beginners willing to spend some time into it

routino: find a path between two points

- set of tools for finding a route between two points
- uses OpenStreetMap dataset of topographical information

maptool: convert OpenStreetMap maps to Navit

- Navit: car navigation system with routing engine
- maptool converts OpenStreetMap maps to Navit format

gosmore: Openstreetmap.org viewer & wayfinder

- support for speech syntesis
- fetches the current location from gpsd
- create your own navigation device with laptop + simple GPS
monav: routing with OpenStreetMap data

- fast and exact routing without heuristic assumptions and very little computational work
- preprocessor transforms raw OpenStreetMap data into file formats usable by the MoNav Client
- preprocessing is often time consuming and requires larger amounts of memory
- client application has very few requirements and can even run on mobile devices

GPSPrune: clean up your track

- original name: prune
- viewing, editing and converting coordinate data from GPS
- play with GPS data after coming home from a trip
- display data as map view using OpenStreetMap
- cleaning up tracks by deleting wayward points

Viking: clean up your track (alternative)

- GPS data editor, analyzer and viewer
- supposed to have the same functionality like gpsprune
- GTK based
- popularity contest: more users than gpsprune

JOSM: edit the map

- most used / advanced editor for OpenStreetMap data
- there are users who swear that JOSM should be used from SVN and packaging would be useless
- there is a package anyway for those who disagree → there is a complete OSM workflow packaged by Debian GIS

merkaartor: edit the map (alternative)

- map editor for OpenStreetMap.org
- GTK (may be some people prefer this over Java GUI)
- I’d recommend JOSM anyway since its somehow “official”
- development seems to be dead

Various OSM server tools (random examples)

- tilecache web map tile caching system
- tilelite lightweight Mapnik tile-server
- tilestache map tiles caching system
- libjs-openlayers JavaScript library for displaying map data in web browsers
- osmjs osmium-based Javascript framework for OSM data
- libjs-leaflet JavaScript library for mobile-friendly interactive maps
Excursus: Do-O-cracy

Several years ago on an LSM (RMLL) event I was asked: “Will Debian support Quantum GIS?”

Sorry that’s the wrong question.

Debian is a Do-O-cracy

== the doer decides what will be done

So if you, yes you, will package qgis in Debian than Debian will support qgis

Finally such a “you” decided to do the work

But if you . . . again I mean you have some interesting application in mind which should be in Debian according to your opinion it is up to you to start the work . . .

. . . and the Debian GIS team will help you to finalise your work

Links, contacts

- OSM task of Debian GIS
- Wiki
- package thermometer
- mailing list
- #debian-gis on irc.debian.org (OFTC)

Summary

- full OSM workflow inside Debian
- however, there is more cool stuff to package out there
- prove people claiming you should not package OSM software wrong
- unfortunately lacking publicity (via talks like this etc.)
- enhance teamwork (pkg-grass + pkg-osm)
- find new team members to enlarge team
- common sprints (developer meetings)

⇒ Do good things and talk about it

This talk is available at http://people.debian.org/~tille/talks/
Andreas Tille <tille@debian.org>