OSM applications in the Debian GIS project

How Debian supports OpenStreetMap applications

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Debian

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Short introduction of Debian GIS Blend

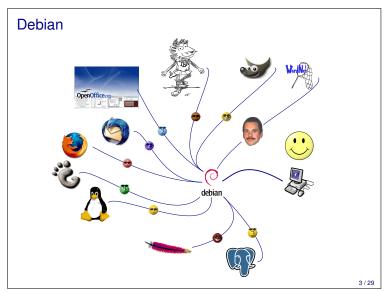
2 The people caring for OSM software in Debian

OSM workflow

- Trip preparation
- On your trip
- After collecting data on the trip
- Hosting your own OSM server

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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

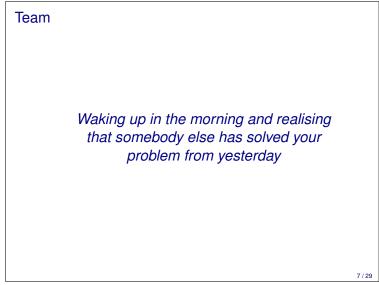
Debian GIS advertises Debian to OpenStreetMap users & mappers as well as GIS experts

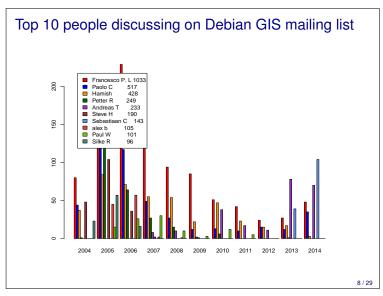
Why OSM inside Debian GIS Blend?

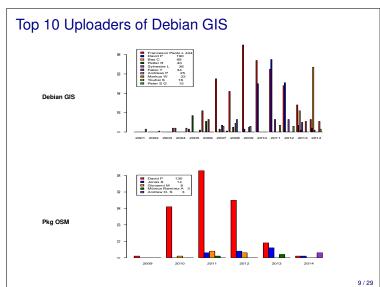
- perfectly possible to have its on Blend for OSM
- matter of critical mass
- following the example of biology inside Debian Med
- complex packaging tasks are profiting from developer team

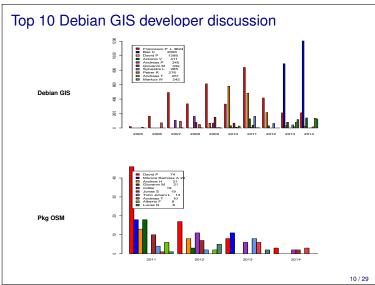
Turn Debian into the distribution of choice for OSM users

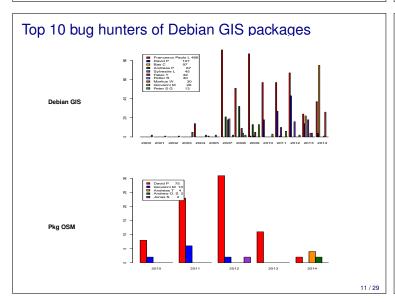
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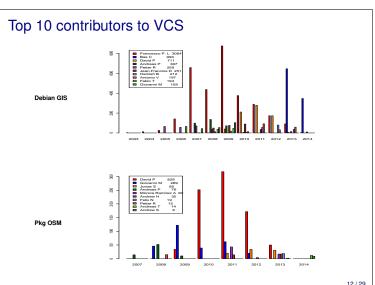












Why two packaging teams

- 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

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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

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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

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monav: routing with OpenStreetMap data

- fast and exact routing without heuristic assumptions and with 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

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Viking: clean up your track (alternative)

- GPS data editor, analyzer and viewer
- supposed to have the same functionality like <code>gpsprune</code>
- 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
- $\rightarrow\,$ there is a complete OSM workflow packaged by Debian GIS

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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

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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 <u>Do-O-cracy</u>
 == the doer <u>decides</u> 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)

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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>