Debian GIS

Introducing a Debian Pure Blend for Geographic Information Systems

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Debian

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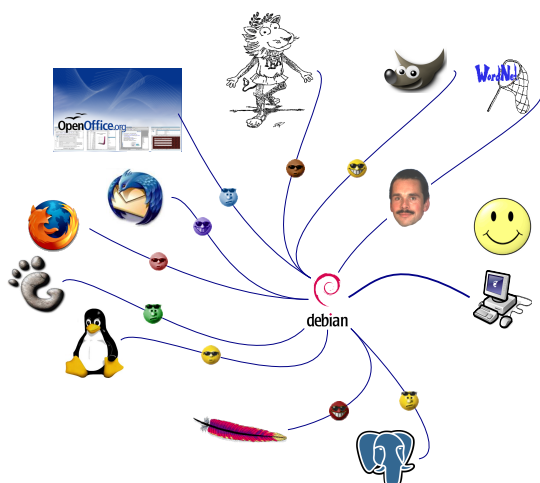
1. The Blends concept

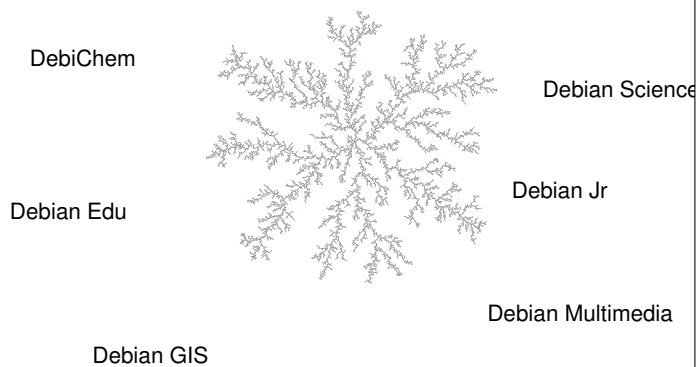2. The Debian GIS team

3. Selected packages

Debian

GIS Applications in Debian

Debian Med

DebiChem

Debian Science

Debian Jr

Debian Edu

Debian Multimedia

Debian GIS

The name

- "*Debian Internal Projects*" became
- "*Custom Debian Distributions*" → total failure
- DebConf 2008 "*Debian Internal Solutions*"???
- People popped up for the only purpose of *bikeshedding*
- Vote ended up in "*Debian Pure Blends*" in short "*Blends*"

Similar structures in other distributions

- *Fedora Geo Spin*
- OpenSuSE ???
- *Ubuntu GIS*
- *XUbuntu derivative: OsGeo-Live*
- *FreeBSD Ports: Geography*

➜ *Debian GIS working together with Ubuntu GIS + OsGeoLive*

Purpose of Blends

- Making a certain topic "hot"
- Attract users of the specific working field interested in Debian
- Teach users & developers how to work together with Debian (via Blend team)

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

Why GIS in a Debian Blend?

- Following the example of Debian Med and Debian Science
- Specialised software has a comparatively small user base
- Complex packaging tasks are profiting from developer team
- Pushes Debian into a field of dominant proprietary software

Turn Debian into the distribution of choice for GIS applications

Team

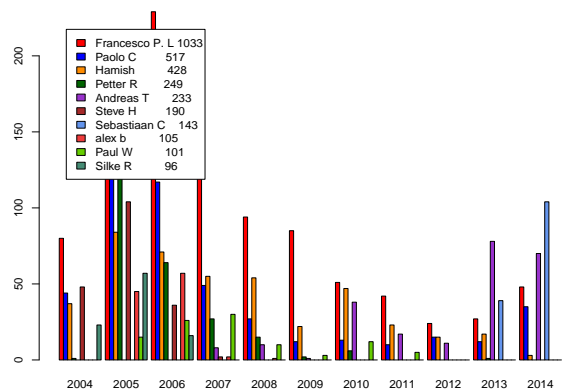*Waking up in the morning and realising that somebody else has solved your problem from yesterday*

Available Blends tools and formalisms

- General creation of metapackages based on tasks files (`blends-dev`)
- Web sentinel *tasks*
- Web sentinel *bugs*
- Web sentinel *"thermometer"* designed for Debian / Ubuntu GIS
- Handling of scientific citations
- Making use of *UDD* for several purposes (web sentinel, citations, prospective packages in VCS, upload + bugs statistics)
- *Debian GIS policy*
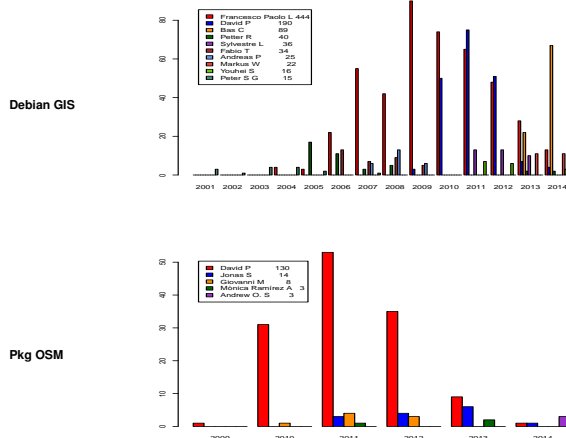- *Sponsering of Blends*
- Suggested: *Mentoring of the Month*

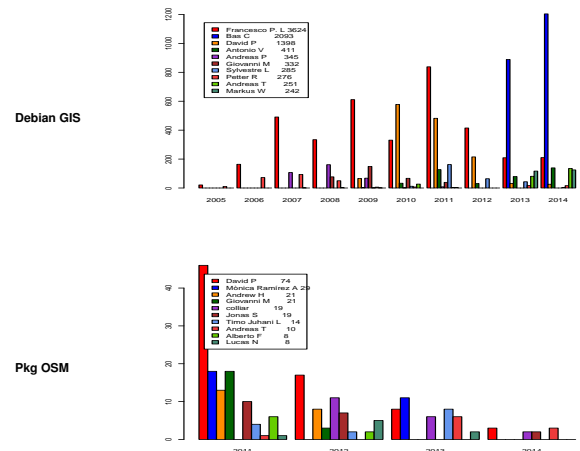## Top 10 people discussing on Debian GIS mailing list

Francesco P. L	1033
Paolo C	517
Hamish	428
Petter R	249
Andreas T	233
Steve H	190
Sebastiaan C	143
alex b	105
Paul W	101
Silke R	96

Top 10 Uploaders of Debian GIS
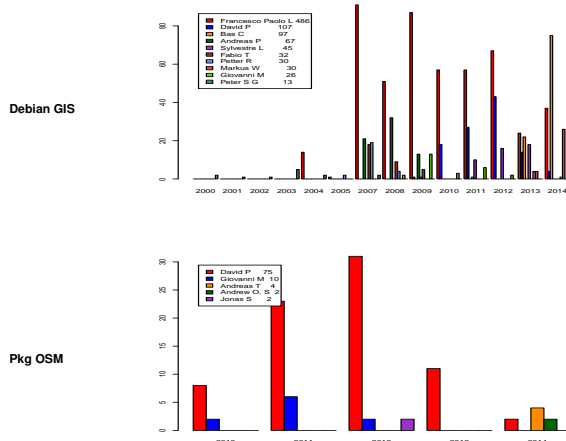
Top 10 Debian GIS developer discussion
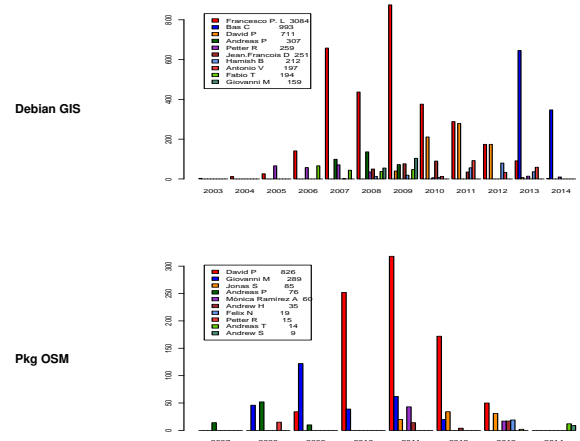
Top 10 bug hunters of Debian GIS packages

Top 10 contributors to VCS

Why two packaging teams

- packaging GRASS was historic root of Debian GIS
- that's why the pkg-grass name came up first
- since there are people who consider OSM different enough to create a separate packaging team pkg-osm was started
- 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

Cooperation UbuntuGIS & OSGeo

- OSGeoLive creates live medium based on UbuntuGIS
- since Ubuntu is based on Debian it makes sense to work together
- currently there is some effort to consolidate the packaging in pkg-grass repository (on alioth.debian.org)
- work together, do not reinvent the wheel
- working on this is one goal of a *GSoC project*

GRASS

- Geographic Resources Analysis Support System
- *The* free geographic information system
- geospatial data management and analysis, image processing, graphics/map production, spatial modeling, and visualization
- used in academic and commercial settings around the world, as well as by many government agencies and environmental consulting companies
- steep learning curve

QGIS

- Quantum GIS
- manages, analyzes, and displays databases of geographic information
- shape file viewing and editing
- spatial data storage with PostgreSQL/PostGIS (also packaged)
- map composition
- display of various georeferenced raster and Digital Elevation Model formats

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

JOSM

- (probably most used) 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

QLandkarteGT

- GPS mapping (GeoTiff and vector) and GPS management
- drivers for Garmin devices are in qlandkartegt-garmin package
- testing selfmade Garmin maps
- frontend to the GDAL tools
- straightforward interface especially suited for non-scientific users

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

Links, contacts

- *Wiki*
- *complete package overview*
- *tasks of Debian GIS*
- *live images*
- *package thermometer*
- *mailing list*
- *#debian-gis on irc.debian.org (OFTC)*

Summary

- various GIS applications packaged for Debian
- maintainers doing a high quality job in packaging
- unfortunately lacking publicity (via talks like this etc.)
- Blends strategie might enhance visibility
- 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>