Workshop FOSS4G 2019 proposal
Close of CFP : April 15, 2019
Information: https://2019.foss4g.org/call-for-papers/workshop-proposals/
Each workshop takes 4 hours

Setting up a Spatial Data Infrastructure (SDI) with Open Source Software using OSGeoLive

level: from 1 – beginner to 4 – highly advanced.
Suggestion Level: 1-2

This workshop provides a practical, overview of key software used within a Spatial Data Infrastructure (SDI). It will be useful for a business people and techies with little or no experience with the range of Open Source Geospatial software, and who would like first-hand experience with these tools.

In the workshop, we will use OSGeoLive and the Open Source software and sample data shipped with it to get to know the components of an SDI. We will get our hands dirty using some of the leading applications, and will introduce the other applications on OSGeoLive and when they are used.

A Spatial Data Infrastructure (SDI) is a data infrastructure that provides geographic data and metadata, which is accessible for several users and incorporates a variety of tools to accomplish different processes. It helps make data accessible, maintainable and findable throughout your organization.

We will start with different types of geographic data and learn about how to store data in a PostgreSQL/PostGIS database.

As second step, we will have a look at a service based infrastructure and you will learn about OGC services like OGC Web Map Service and OGC Web Feature Service. You will learn how to create these services with software like QGIS Server, MapServer or GeoServer. We will practice with QGIS server.

A client is needed to view and analyse data from services. We will learn about Desktop GIS and WebGIS and load Services in QGIS and publish data to the web using OpenLayers, GeoNode and Mapbender.

We will learn about metadata and how to make data traceable in a metadata system like GeoNetwork or pycsw. We will practice with pycsw and GeoNode.

And you will learn how you can control the access to your data and setup a user management.

After the journey through all the components you will be familiar with the concept and the advantages of a Spatial Data Infrastructure, and will know where to look for deeper insights into the more powerful features of the various tools.

Proposal submission questions:

Title:
Type of submission: Workshop
Language of the submission : English
Abstract : see above
Notes for the organiser (Optional)

Rate your submission with respect to its technical complexity, from 1 - beginner to 3 - advanced

Do you have any materials you want to share with the participants to your workshop?

TALK PROPOSAL

What's new in OSGeoLive 13.0 ?

OSGeoLive is a self-contained bootable DVD, USB thumb drive or Virtual Machine based on Lubuntu, that allows you to try a wide variety of open source geospatial software without installing anything. It is composed entirely of free software, allowing it to be freely distributed, duplicated and passed around.

It provides pre-configured applications for a range of geospatial use cases, including storage, publishing, viewing, analysis and manipulation of data. It also contains sample datasets and documentation.

OSGeoLive is a great project and is used in several workshops at FOSS4Gs around the world.

OSGeoLive 13.0 will be released at the end of July 2019 ready for FOSS4G 2019.
Still working on the improvements initiated for OSGeoLive 12.0, it will embedded latest stable version of a vast choice of Open Source Geospatial software. The work on the geodata science with Python and R stacks have also been continued.

The documentation is also a big building area and we made a proposal to Google Season of Docs in order to get it even better.
This presentation will reflect what we did for OSGeoLive 13.0, what choices have been made, what we plan to do for 14.0 and after.

Questions:
1. How much time is the presentation slot? 30 minutes slot : 20 min presentation, 5 min questions and 5 minutes for room changes.

2. What should our target audience be? If targeting new users the OSGeoLive lightning talk could be used. But I think we target OSGeo community who already know OSGeoLive, and want to know our current status. beginners and users that want an update. So yes, we need to present the project, what we have done for 13.0 and what we plan to do.

--- To keep in mind for the presentation writing :

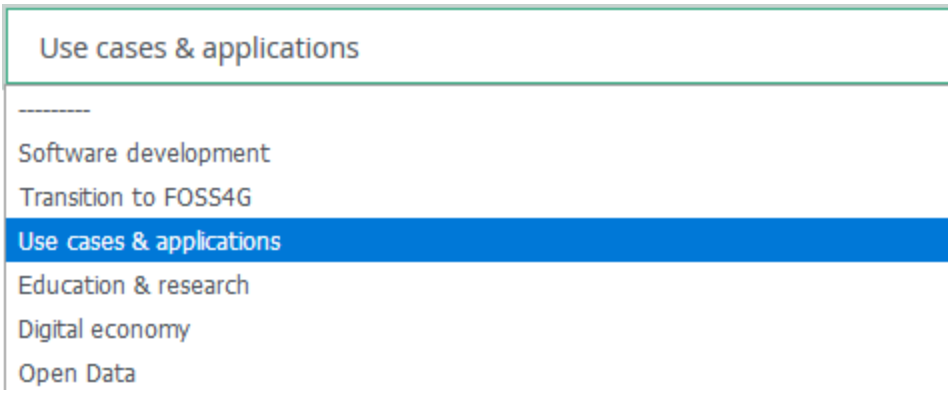
Ie, I think we should provide a "State of OSGeoLive" talk:
* What have we achieved?
* What are our current challenges?
* What are our immediate next steps?
* What are our long term goals?
* How are technology trends impacting us (both positive and negative) and how are we responding?
* How does OSGeoLive integrate with other projects and how it can be used as an indicator of health of other OSGeo communities.
* How can other communities engage with OSGeoLive most effectively to amplify the effectiveness of their projects.

-- Potential sources to draw upon:
http://cameronshorter.blogspot.com/2011/06/memoirs-of-cat-herder-coordinating.html
http://cameronshorter.blogspot.com/2019/02/inspiring-techies-to-become-great.html
https://wiki.osgeo.org/wiki/Season_of_Docs_Ideas_2019

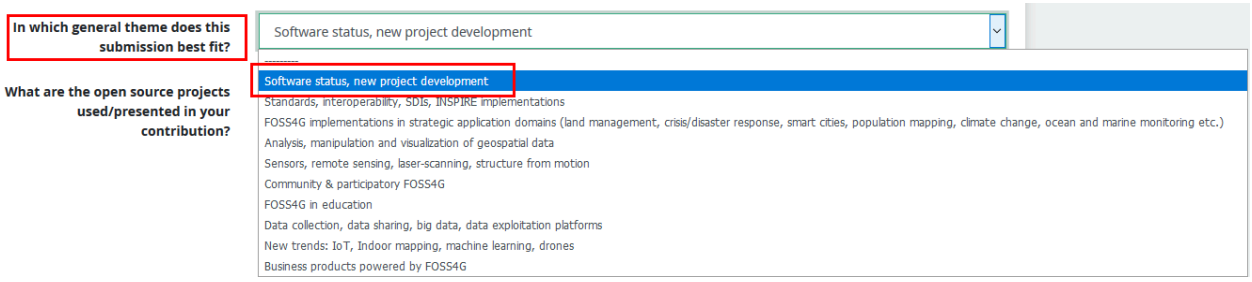
- Also taking OSGeoLive (or components of OSGeoLive) into the cloud

Proposal questions

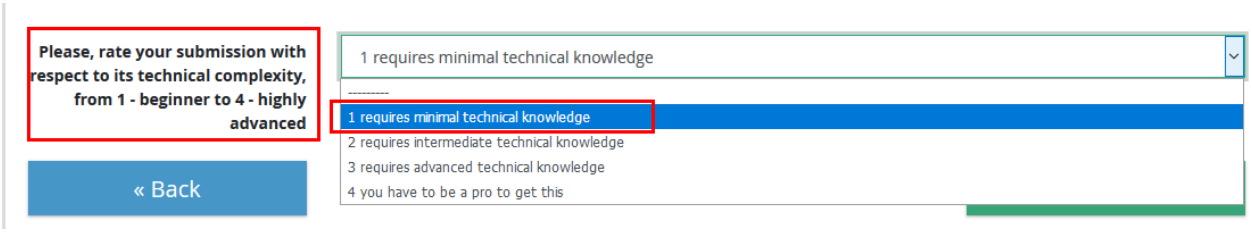
In which general topic would you include this submission? => Uses cases and applications



In which general theme does this submission best fit?
Software status, new development



Please, rate your submission with respect to its technical complexity, from 1 - beginner to 4 - highly advanced
1 - Minimal technical knowledge



2019/04/12 proposal:

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This presentation will reflect what we did for OSGeoLive 13.0, what choices have been made, what we plan to do for 14.0 and after.

Cameron's suggested proposal

Title: OSGeoLive - State of the union
Description:
The OSGeoLive project has consistently and sustainably been attracting contributions from ~ 50 projects for over a decade. Why has it been successful? What has attracted hundreds of diverse people to contribute to this project? How are technology changes affecting OSGeoLive, and by extension, the greater OSGeo ecosystem? Where is OSGeoLive heading and what are the challenges and opportunities for the future?
In this presentation we will touch on the principles that helped us become successful. We will cover current opportunities and challenges, and why people are using OSGeoLive now. And we will postulate where we think we might be heading next.

OSGeoLive is a Lubuntu based distribution of Geospatial Open Source Software, preconfigured with software, data, project overviews and quickstarts. It is great for testing the latest OSGeo software, using in workshops and tutorials, and has become a valuable marketing pipeline for OSGeo projects.

Preparation of the workshop

Preparation of the presentation
Previously: what's

https://osgeo.github.io/OSGeoLive-doc/en/presentation.html#/

Present project: 2 parts

- Status: feedback to board, the community : 10 minutes ?
- Technical details, new features: 10 minutes ?

Update the old presentation, add a couple of slides
20 minutes is too short for presenting all projects => select projects with new major release / features

We can use the automated slides and add some more at the top

https://github.com/OSGeo/OSGeoLive-doc/blob/master/doc/presentation/start_presentation.txt

Add slides for:

- How to contribute (wiki, GH repos, IRC, translations)
- Roadmap
- Category for project status
- Issues
- Main topics for developments
- Reach out to project, we need testers, documentation writers, cloud approach; automated doc building
- Transifex- Add your language

Angelos will look for historic slides

SDI : how to use specific tools in the distribution

Focus on beginners

Follow a workflow:

- Download data
- Open them
- Do some geotraitment
- Store into a database
- Publish them to services
- Do some maps

Handouts with some links to updated quickstarts:

- OSGeoLive page : links and screenshots
- QGIS: *(Nicolas)*
    - Load data
    - Transform data
    - Connect to databases
- PostGIS *(Nicolas)*
    - Load data (shp2pgsql)
    - Visualise data inside / with QGIS
    - Do some treatment
- MapServer / GeoServer Astrid
    - Connect to databases (PostGIS, GeoPackage)
    - Create a datastore
    - Publish layers
    - Visualise with QGIS
- QGIS Server Astrid
    - Publish QGIS project

- Clients
    - Leaflet (already written page, just to show possibilities)
    - OpenLayers(already written page, just to show possibilities)
    - QGIS
    - Mapbender Astrid
- Metadata Angelos

We link the slides at
https://trac.osgeo.org/osgeolive/wiki/Live_GIS_Workshop_Install

MAIL TO Participants to prepare the notebooks

FOSS4G 2019 important workshop information - Setting up a Spatial Data Infrastructure (SDI) with Open Source Software using OSGeoLive

Hello,

I hope this email finds you all well and prepared for FOSS4G2019 Bucharest in a few days!

We have some additional information for you for the workshop "Setting up a Spatial Data Infrastructure (SDI) with Open Source Software using OSGeoLive".

We will use OSGeoLive 13.0 for the workshop. Please prepare your notebook in advance so won't lose time in the workshop.

You can download the release candidate at:
http://aiolos.survey.ntua.gr/gisvm/13.0/osgeolive-13.0rc3-amd64.iso

Follow the instructions to set up a virtual machine or to create a bootable USB:
https://live.osgeo.org/en/quickstart/virtualization_quickstart.html
https://live.osgeo.org/en/quickstart/usb_quickstart.html

Workshop Material

You find a link to the workshop material in the OSGeoLive-Wiki:
On the Desktop of OSGeoLive, you find an icon "Workshop Install" that links to this location too:
https://trac.osgeo.org/osgeolive/wiki/Live_GIS_Workshop_Install

You can find more information about the Workshops at
https://2019.foss4g.org/call-for-papers/workshop-proposals/

See you at FOSS4G next week,

Astrid Emde, Angelos Tzotsos, Nicolas Roelandt

Workshop detailed steps

Introduction + general steps
Time share:
Steps 1 … 20 : Nicolas ?
Steps 21 … X :
Steps X … Y :

1. Open QGIS
2. Open the Data source Manager
3. Load /usr/local/share/data/natural_earth2/world.shp
4. Select Romania (Select features by expression : `"iso_a2" = 'RO'`)
5. Save into a GPKG or a new temp layer (duplicate + Provide feature filter)
6. Create Postgresql database “workshop”
7. Create PostGIS extension `CREATE EXTENSION postgis;`
8. Create Postgis connection from QGIS
9. Push Romania data into the database
10. Use shp2pgsql to push another dataset (Europe ?)
11. Do some filtering into PostGIS
12. Launch GeoServer
13. Add a data store
14. Publish layers
15. Open WFS services in QGIS => everything is OK
16. Create OL / Leaflet boilerplate
17. Add OSM basemap
18. Add FOSS4G marker at Workshop location
19. Enable CORS headers in GeoServer :/
20. Add WFS into Leaflet