

# GeoMapFish User Group

March 12, 2018

**camp**to**camp**

INNOVATIVE SOLUTIONS  
BY OPEN SOURCE EXPERTS

# Agenda

- Product presentation
  - Release 2.3 Feature presentation
  - Release 2.3 Admin interface presentation
- Future work
  - Vector tiles
  - Docker deployment
  - QGIS
  - Release 2.4
- Product management
  - Release planning, acceptance testing & stakeholders management
    - GMF USRGRP organisation
  - Maintenance contracts, support, project, integration
- GMF 2.4 financial proposal
  - Buy strategy GMF 2.4 SCRUM vs V-Model
  - open questions: project vs product management?
- Demos
  - LIDAR, Luxembourg 3D
- Community description text



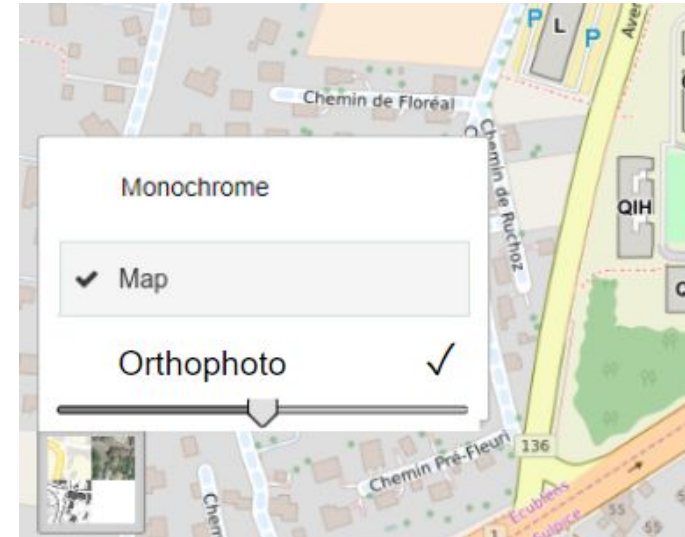
# Version 2.3

- Already presented in November 2017
  - Mobile layers opacity
  - Mobile no-flush
  - Swipe arrow to close results window
- New features
  - Move/resize windows
  - Map rotation
    - Test on mobile here:  
<https://camptocamp.github.io/ngeo/master/examples/contribs/gmf/apps/mobile/>  
[https://camptocamp.github.io/ngeo/master/examples/contribs/gmf/apps/mobile\\_alt/](https://camptocamp.github.io/ngeo/master/examples/contribs/gmf/apps/mobile_alt/)
  - External layers browser
  - Admin interface
    - [https://geomapfish-demo.camptocamp.net/gmf\\_admin/](https://geomapfish-demo.camptocamp.net/gmf_admin/)



# Other features

- Background opacity slider (EPFL)
  - Testing phase



- Full-text search improvements (SITN)

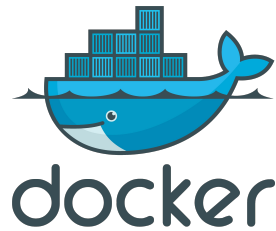


# Vector Tiles

- Why vector tiles?
  - Better performances
    - lower bandwidth
  - Gain generation time (1.5h CH TLM)
  - Up to date data (daily processed)
  - Defacto standard with Mapbox and Google
  - User styling, rotated labels, custom user content (filters)
- Swisstopo to provide updated VT MBVTformat
- What's currently in OL?
  - <https://camptocamp.github.io/ol-vt-tests/ol-sbm-osm.html>
  - Everything is rasterized in the canvas renderer, except for the labels in hybrid modus



# Docker ecosystem



# Docker advantage

## New possibilities

- different lifecycles OS and applications
- add PHP containers or whatsoever without conflicts
- rollback at deploy
- local dev environment with IDE
- less downtime at deploy
- portable (os independant;docker and compose)
- common solution from simple deployment to multi-hosts platform



# Docker

- New deployment opportunity with docker
  - The puppet installer will be replaced by a maintained docker container composition
- Prerequisites:
  - Docker and docker compose installed
  - Standalon PostgreSQL/PostGIS DB available
- How to get it running:
  - docker compose Docker compose run composition.yml
- Trainings available:
  - <https://www.camptocamp.com/en/formation/docker-training-open-source/>





# Docker system architecture

- Entry point container
  - nginx ssl
- GMF containers
  - WGSII
  - Mapfish Print
  - Alembic
  - Mapserver or QGIS
- Toolbox containers
  - sFTP
- Local data volumes
  - Mapped to the containers

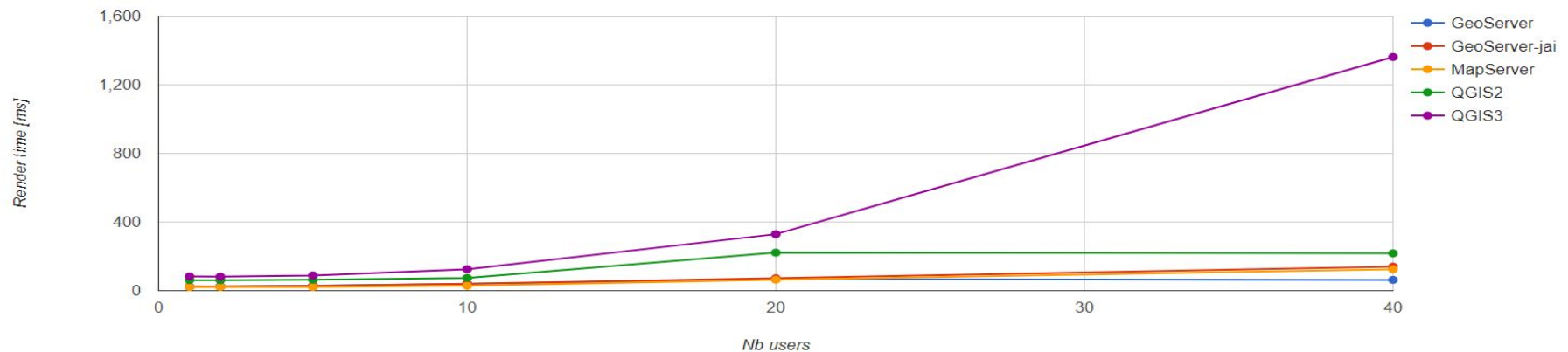
=> how do we work with GMF in a Docker context?



- QGIS 2 and 3 available as maintained docker containers
- QGIS 2.x works perfectly with GMF
- QGIS 3 complete code refactoring
  - Technologically uptodate, but needs some care
    - Performance improvements necessary
    - GMF compatibility (OGC compliant but invalid XML)

Layer: amenities\_class

Level: 7



# Version 2.4, IFRAME Integration

- Based on Baselstadt Geoportal → generic feature
- Additional features, notably import of external CSV files



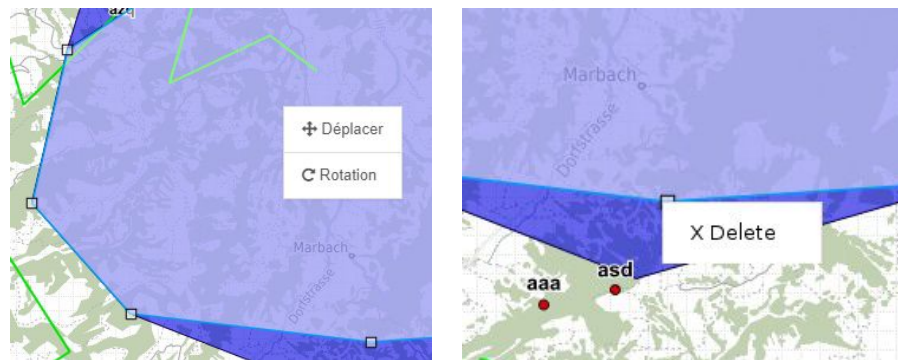
# Version 2.4, Editing

- Columns order
  - New ordered list metadata `columnOrder`
  - For editing but also window and grid query results
- Readonly attributes
  - New metadata `readonlyAttributes`
  - Includes server check
- Link to external form
  - When editing objects with complex structure
  - Tools to help integrate with an external form (form not included)



# Version 2.4, Drawing

- Delete vertex menu
  - Replaces standard click-to-delete behavior
  - More coherence with existing UI



- Zoom on recenter
  - Current version: no zoom on geometry
- Read-only mobile drawing
  - Display drawing shared with permalink on mobile
  - No editing on mobile



# Version 2.4, Layer Tree

- Tree panel resize
  - User can modify panel size when using application
  - Left panel of desktop application only
- Layer tree radio buttons
  - New option for layer group in admin interface
  - One or zero group's child selected at a time
  - Subgroups case included



# Version 2.4, Query/General Interface

- Auto-link in results
  - Transforms URLs or mail addresses and adds HTML link
  - Works when value contains nothing else
  - Label is the link itself
  - Feature always enabled
- App loading widget
  - Displays when application is loading
  - Configurable by integrator
- First level panel title
  - Title for mobile top level menus



# Version 2.4, Print

- A0 printing
  - A0 printing does work, but it's heavy
  - Tiling
  - Queuing when more than one request
  - E-mail download system





# Product Management

- Some customers questions...
  - What do we get with the maintenance contract?
  - This task should be covered by the maintenance contract and not the support!
  - I don't know when the release will happen...
  - Why is there still such a workload to use a new GMF version in my environnement?
  - I don't know if the release is ready to use...
  - This task is not a support task but a warranty task, I shouldn't been charged for!
- and internal ones
  - Why do do spend so much time in the project account, for so long after the delivery?
  - Can you please clarify what is maintenance, project, and support tasks so that we can track where the ressources flow!



# Maintenance

- Takes care of open source projects in relation of geomapfish in the camptocamp github organization
  - issues triage, code reviews
  - continuous integration
  - dependencies updates and minor releases
- Takes care of related open source projects
  - openlayers, sqlalchemy, papyrus, etc
- Helps to organize and participation to community meetings (PSC, Dev-Hangouts, Users Group)
- Provides the infrastructure for the maintenance
  - CI server, demo server
  - Ticketing system
  - xBrowser testing solution, alerting, etc



# Maintenance

- 20 maintenance contracts à 5kCHF == 60 Days / year + 18.5 Day support included == 1 d per week + hosting
  - 4 hours, github triage GMF, review, releases, dependances updates
  - 4 hours openlayers, mapfish print, etc contribs
- 2017
  - 4,5k+ issues where c2c team contributed  
<https://github.com/search?p=2&q=involves%3Apmaduit+involves%3Aajacolin+involves%3Asbrunner+involves%3Aarnaud-morvan+involves%3Apvalsecc+involves%3Afravin+involves%3Ageraudo+involves%3Afredj+updated%3A%3E%3D2017-03-08&type=Issues>
  - 2k+ issues c2cgeoportal + ngeo  
<https://github.com/search?l=&q=involves%3Apmaduit+involves%3Aajacolin+involves%3Asbrunner+involves%3Aarnaud-morvan+involves%3Apvalsecc+involves%3Afravin+involves%3Ageraudo+involves%3Afredj+updated%3A%3E%3D2017-01-01+repo%3Acamptocamp%2Fc2cgeoportal+repo%3Acamptocamp%2Fngeo&ref=advsearch&type=Issues&utf8=%E2%9C%93>
  - 140 dependancies updates  
<https://github.com/camptocamp/c2cgeoportal/graphs/contributors?from=2017-01-01&to=2017-12-31&type=c>
  - MapFish print geotools 14 > 17 + other dependencies  
[https://github.com/Vampouille/mapfish-print/commits/update\\_libs](https://github.com/Vampouille/mapfish-print/commits/update_libs)



# Project

- 2 releases per year, bug fixing during 6 months after major release with monthly minor releases
- Organization
  - C2C Project manager Yves Bolognini,
  - PSC single point of contact (customer)
- Scope is based on proposal and contracts
  - C2C
    - deadlines
    - jira features list
    - github bug prioritization with PSC according to severity (no bug free system)
  - PSC
    - helps during spec phase, monitor progress and inform stakeholders (Lux. ex)
    - Acceptance testing during 30 days after delivery
    - Bug report according to definition of ready



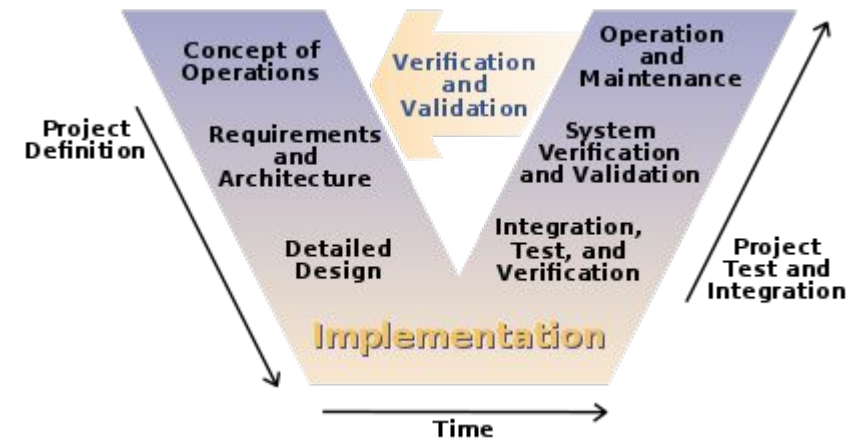
# Major release

- GMF major release 2.3.0
  - According features list
  - Acceptance tests on c2c demo server with features demonstrated
- How do we get to a stable release? **Integration projects needed**
- GMF stable release 2.3.2 > after successful integrations
  - some deployments
    - on standard platforms managed by camptocamp like nendaz
    - on complex platforms managed by camptocamp like EPFL
    - by early adopters like cartoriviera
    - by customer on complex platforms like BS or BL
  - Fixed time after release to get to the stable release
    - report is done by camptocamp and the early adopters to the PSC
  - Agree on the first x.y.2 version which would be called “stable”



# Integration

- GMF is tested on a cloud server managed by Camptocamp puppet with the current Debian stable version.
- Integration necessary on
  - Debian other versions
  - Redhat, with or without Security-Enhanced Linux
  - Ubuntu
  - Windows
  - **Docker compose**
  - Rancher
  - Openshift
- With Postgres XYZ, Mapserver XYZ, etc
- Behind a proxy, with a ldap, with a SSO
- With custom configuration
- With custom plugins
- With custom layout



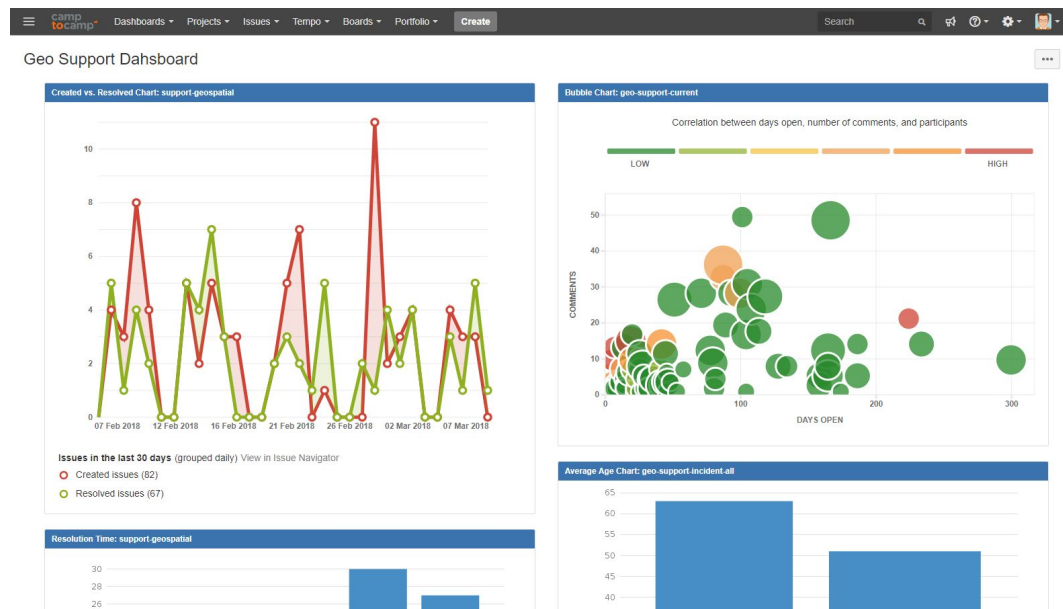
# Project warranty

- Open source project is always published “as is without any warranty”
- Warranty applies to the project contract
  - Who are the stakeholders that may use the contract warranty?
    - The whole community? sure not
    - All GMF USR GRP members?
    - All financial release contributors?
    - Only significant financial contributors?
  - What is covered by the warranty?
    - New features
    - Existing features
    - General workflow/configuration or Custom workflow/configuration?
    - Common environment (demo c2c) or custom integration environment?
    - Browser compatibility matrix or Futur Browser
  - How to classify bugs?
    - According financial contributions
    - According number of occurrences in the community
    - According to the severity?



# Support

- Help the customers in achieving their goal with the best knowledge (support from the experts, core developers of the solution).
- Is support, anything that is not covered by the maintenance and the projects contracts.
- Ticketing system to ensure the reaction time, requests follow up and traceability in the invoicing process.





## 2.4 Financial Proposal

- SCRUM strategy instead of V-Model?
  - Sprints (iterations) instead of fixed price for each features
  - Used successfully on several projects at Camptocamp
  - Used successfully on GMF Admin Interface project
- SCRUM Advantages
  - Better project follow-up
  - Flexibility. Change of priorities, change requests
  - High quality at the end of each iteration (sprint)
  - Better cost management → Lower hourly rate
- Version 0.9
  - More small features?
  - 2.4 Integration strategy



## 2.4 Financial Proposal

- Feature list estimates

FEATURE	DEV Hours	TESTING Hours	PROJECT MNGMT Hours	COST CHF excl. taxes
IFRAME integration	137.4	41.2	26.9	30'825
Configurable column orders	36.0	10.8	7.0	8'070
Read-only attributes	29.3	8.8	5.7	6'570
Link to external form	17.7	5.3	3.5	3'975
Delete vertex menu	13.3	4.0	2.6	2'985
Zoom on recenter	5.3	1.6	1.0	1'185
Read-only mobile redlining	8.3	2.5	1.6	1'860
Tree panel resize	22.7	6.8	4.4	5'085
Layer tree radio buttons	41.4	12.4	8.1	9'285
Auto-link in results	8.3	2.5	1.6	1'860
App loading widget	29.5	8.9	5.8	6'630
First level panel title	8.3	2.5	1.6	1'860
A0 printing	91.8	27.5	17.9	20'580
<b>Total</b>	<b>449.4</b>	<b>134.8</b>	<b>87.7</b>	<b>100'770</b>



to camp

camp to camp

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