WhereGroup

FOSS4G BUCHAREST 2019
26-31 August 44.43555, 26.102347

# Learn how to create web applications for your needs with Mapbender

Astrid Emde

FOSS4G 2019

Bucharest (Romania)

# Astrid Emde

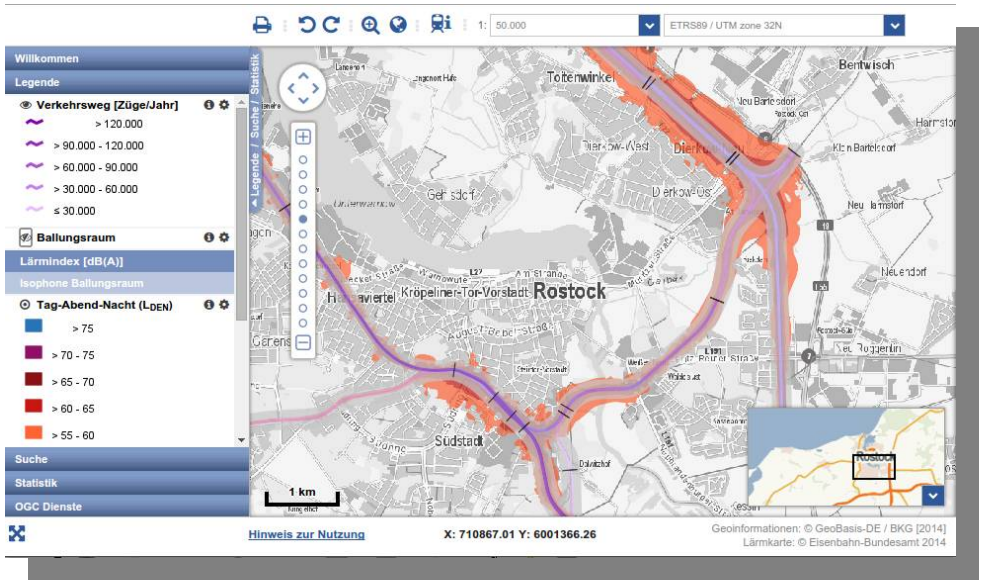
- Mapbende Developer Team since 2004
- Mapbender PSC (Project Steering Committee)
- Project management and development, trainings for MapServer, PostgreSQL/PostGIS, Mapbender, GeoServer
- Concept, Testing, Documentation
- OSGeoLive PSC since 2017
- OSGeo Board since 2017
- WhereGroup Bonn

WhereGroup

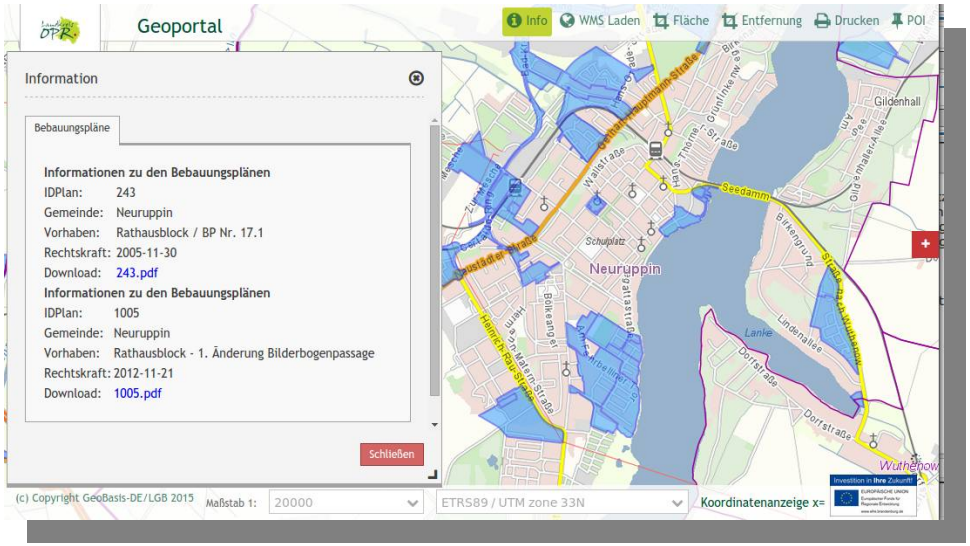
# WhereGroup

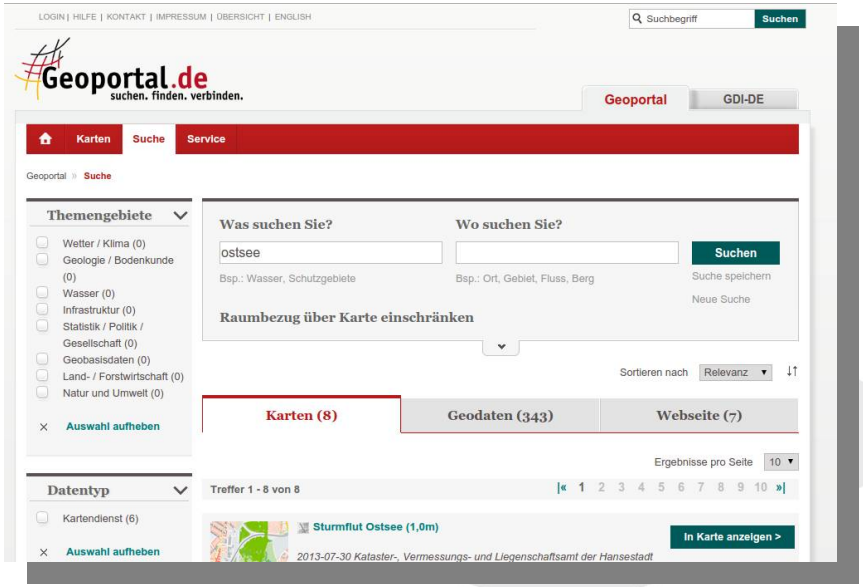
- > 30 employees - developers, consultants & geospatial experts
- Working with Open Source Software for more than 15 years
- Company behind Mapbender, Metador & Mops
- Bonn – Berlin - Freiburg
- FOSSGIS e.V. member & OSGeo sponsor
- We are hiring!

# WhereGroup

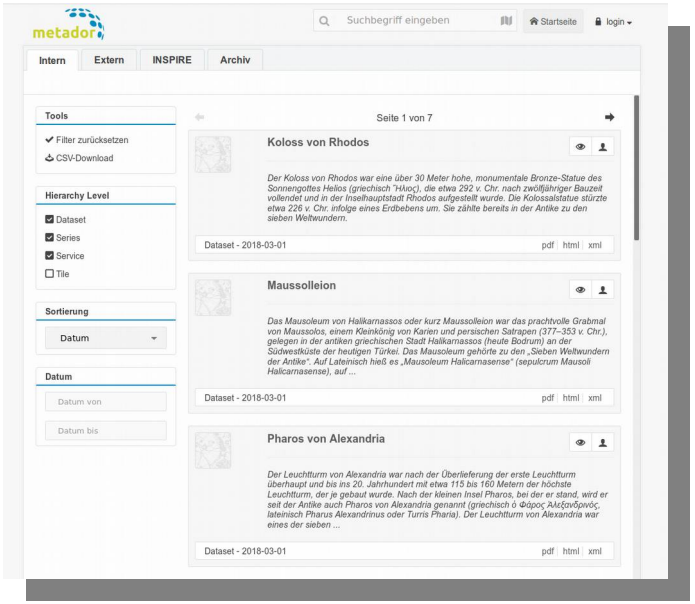

Willkommen
Legende
Verkehrsweg [Züge/Jahr]
> 120.000
> 90.000 - 120.000
> 60.000 - 90.000
> 30.000 - 60.000
≤ 30.000
Ballungsraum
Lärmindex [dB(A)]
Isophone Ballungsraum
Tag-Abend-Nacht (LDEN)
> 75
> 70 - 75
> 65 - 70
> 60 - 65
> 55 - 60
Suche
Statistik
OGC Dienste
Rostock
Hinweis zur Nutzung
X: 710867.01 Y: 6001366.26
Geoinformationen: © GeoBasis-DE / BKG [2014]
Lärmkarte: © Eisenbahn-Bundesamt 2014

Klarschiff HRO
Stadtplan
Luftbild
Adressensuche
Stadtteil/Straße/Adresse eingeben...
neue Meldung
Beobachtungsflächen
Kartenelemente
Hilfe und Impressum
Startseite
Kartenbild © Hansestadt Rostock (CC BY 3.0) | Kartendaten © OpenStreetMap (ODbL) und uVGB-MV


Geoportal
Info
WMS Laden
Fläche
Entfernung
Drucken
POI
Information
Bebauungspläne
Informationen zu den Bebauungsplänen
IDPlan: 243
Gemeinde: Neuruppin
Vorhaben: Rathausblock / BP Nr. 17.1
Rechtskraft: 2005-11-30
Download: 243.pdf
Informationen zu den Bebauungsplänen
IDPlan: 1005
Gemeinde: Neuruppin
Vorhaben: Rathausblock - 1. Änderung Bilderbogenpassage
Rechtskraft: 2012-11-21
Download: 1005.pdf
Schließen
Neuruppin
(c) Copyright GeoBasis-DE/LGB 2015
Maßstab 1: 20000
ETRS89 / UTM zone 33N
Koordinatenanzeige x=


Geoportal.de
suchen. finden. verbinden.
Geoportal
GDI-DE
Karten
Suche
Service
Themengebiete
Was suchen Sie?
Wo suchen Sie?
ostsee
Suchen
Raumbezug über Karte einschränken
Karten (8)
Geodaten (343)
Webseite (7)
Datentyp
Sturmflut Ostsee (1,0m)
In Karte anzeigen

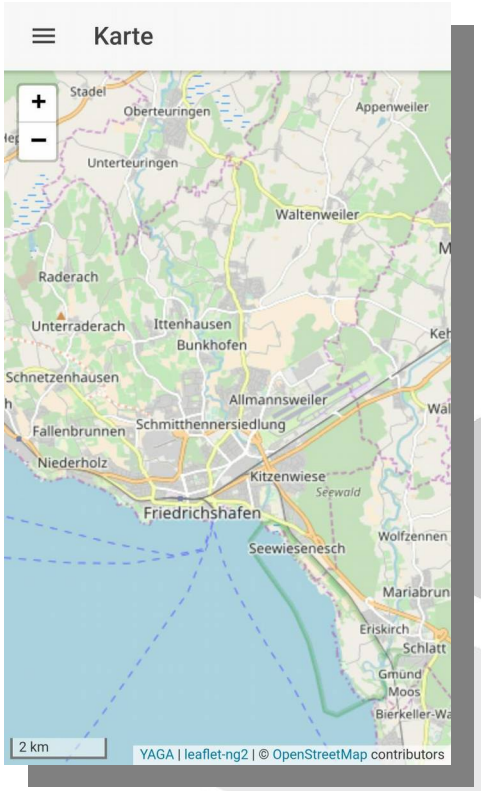
# WhereGroup



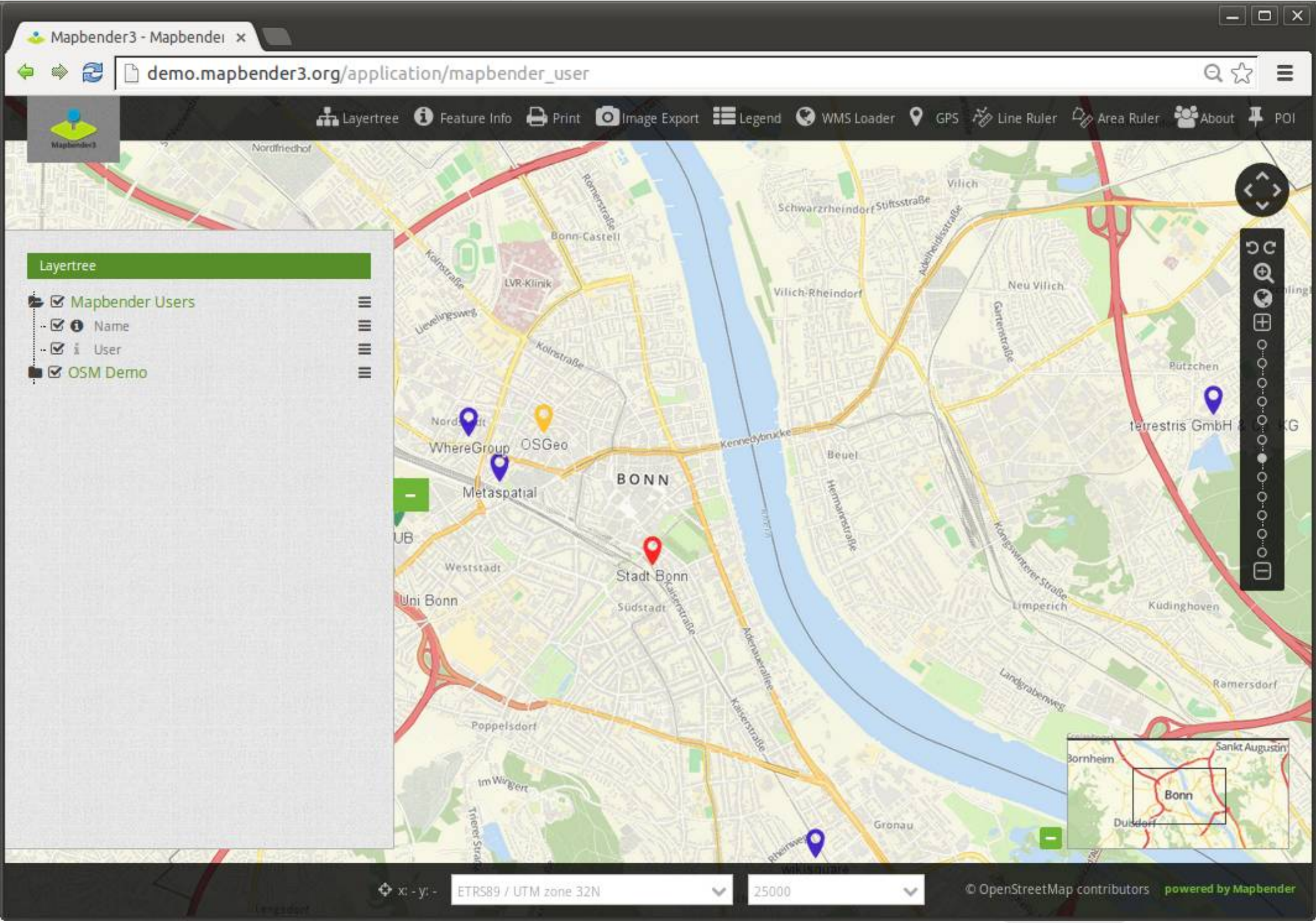

**Metador**
Metadata editor

Mops

Offline Client, YAGA




**Consulting, Training & more**


Mapbender3 - Mapbender
demo.mapbender3.org/application/mapbender_user
Layertree
Feature Info
Print
Image Export
Legend
WMS Loader
GPS
Line Ruler
Area Ruler
About
POI
Layertree
Mapbender Users
Name
User
OSM Demo
WhereGroup
OSGeo
Metaspatial
BONN
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Uni Bonn
terrestris GmbH
Bonn-Castell
LVR-Klinik
Vilich-Rheindorf
Neu Vilich
Beuel
Weststadt
Südstadt
Poppelsdorf
Gronau
Limperich
Küdinghoven
Ramersdorf
Sankt Augustin
Bornheim
Bonn
Düsseldorf
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ETRS89 / UTM zone 32N
25000
© OpenStreetMap contributors
powered by Mapbender

# Workshop

- What does Mapbender do?
- Architecture and Installation
- Register Services
- Create your own application
- User and group security management
- Design adjustments, template printing
- Search module and digitizer

# What does Mapbender do?

# WebGIS Client Suite
# with administration web interface

Create a geoportal without writing a single line of code!

# Create and maintain an OWS repository

# Distribute configured services among applications

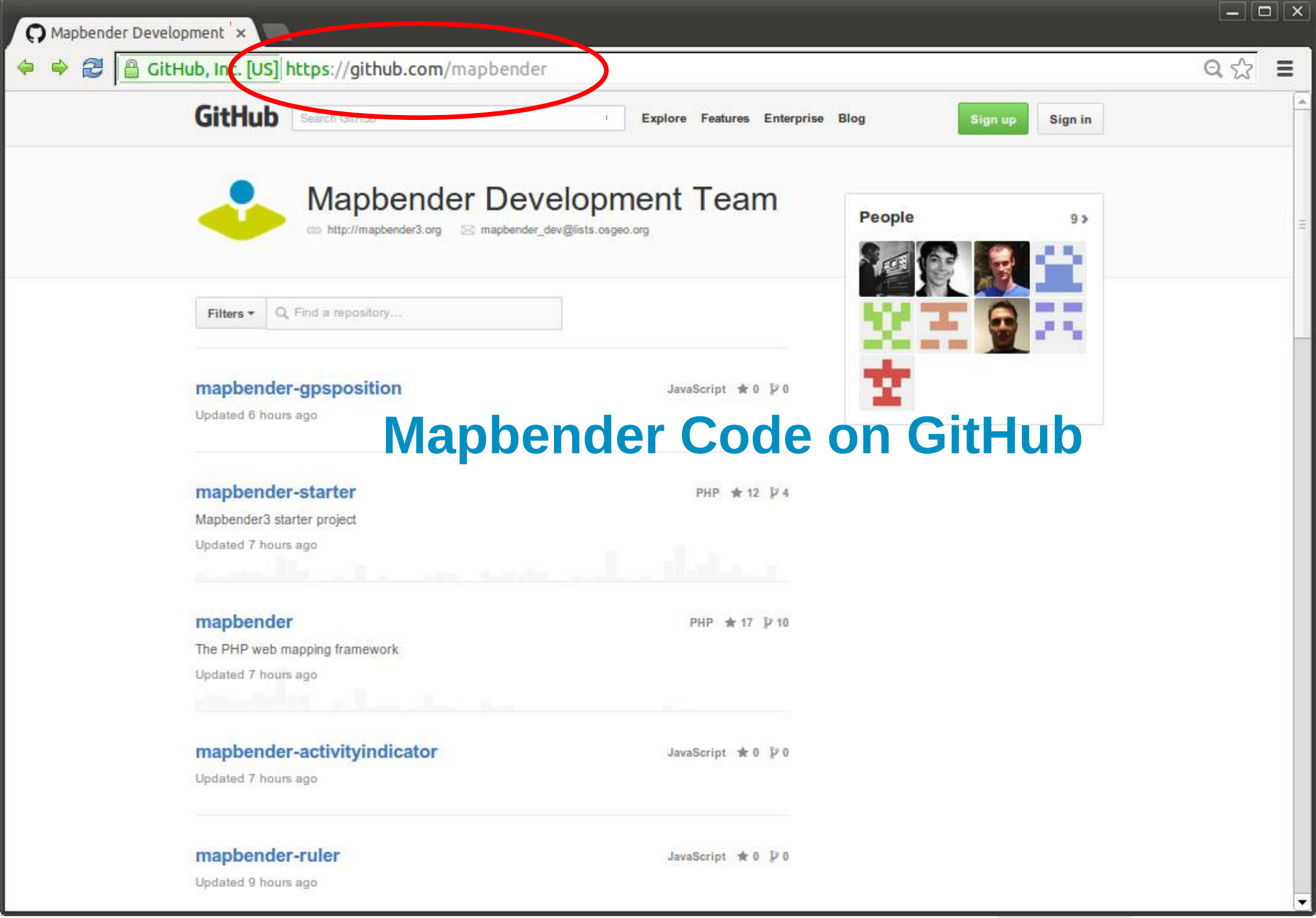
# Grant users and groups access to applications and services

# Which components does Mapbender use?

- Symfony as PHP framework
  - Doctrine, Twig, Monolog, Bootstrap...
  - Bundles
- OpenLayers2
- MapQuery
- jQuery
- SQLite, PostgreSQL, MySQL, Oracle database

# Systemrequirements

- >= PHP 5.6  (php)
- PHP CLI interpreter (php-cli)
- PHP SQLite extension (php-sqlite)
- PHP PostgreSQL extension (php-pgsql)
- PHP cURL extension (php-curl)
- PHP Internationalization-extension (php-intl)
- PHP GD (php-gd) (Print)
- PHP FileInfo (Print)
- PHP Zip
- PHP XML
- APACHE mod_rewrite
- OpenSSL
- See requirements




# Mapbender Code on GitHub

# Installation

- Read about Mapbender Installation
- Workshop Installation install_mapbender.sh of OSGeo-Live

- Download https://mapbender.org/en/download

- Or use the code from GitHub https://github.com/mapbender/mapbender-starter

# Start Mapbender

- Symfony test configuration

  http://localhost/mapbender/config.php

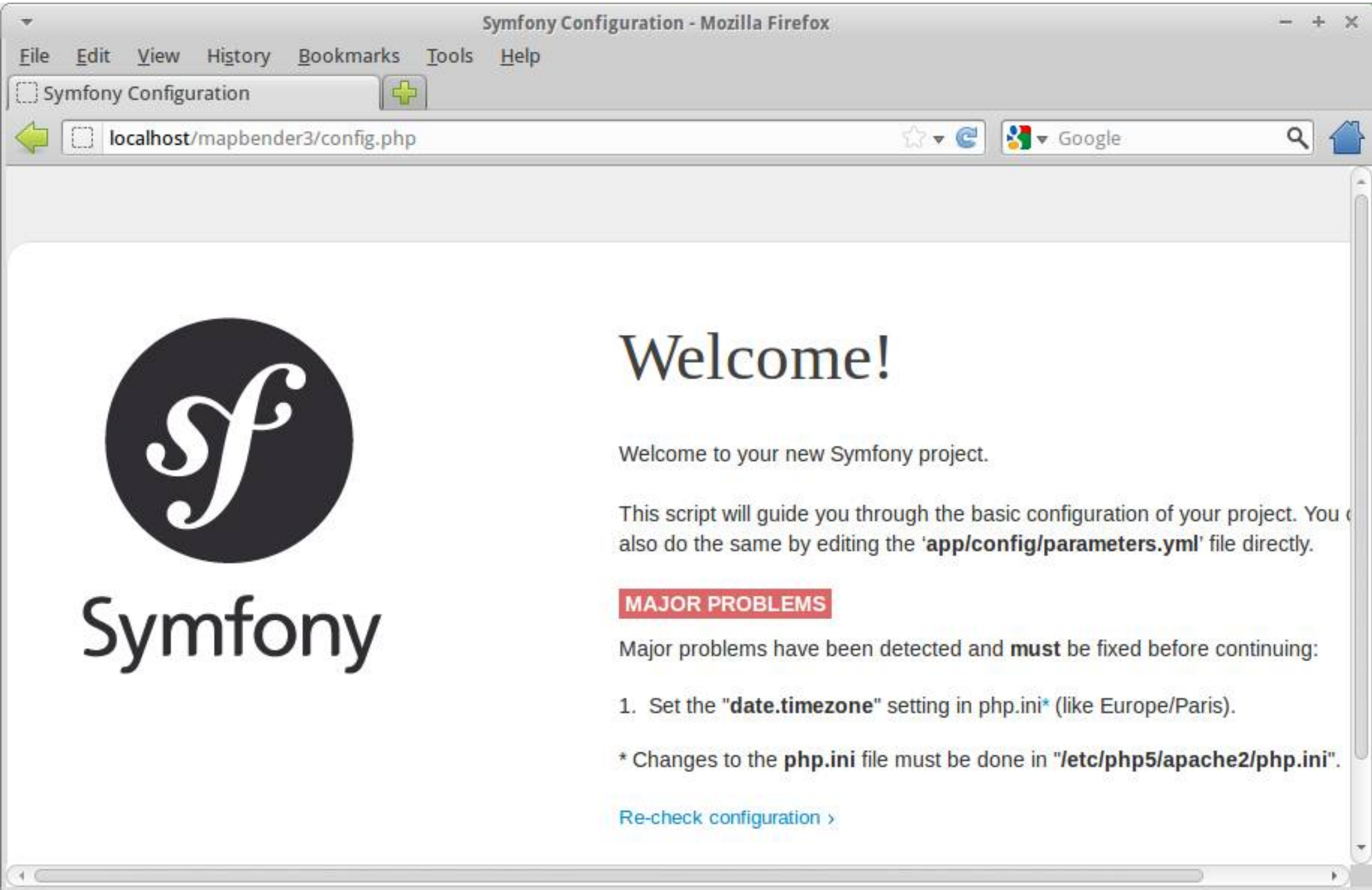
- Developer mode

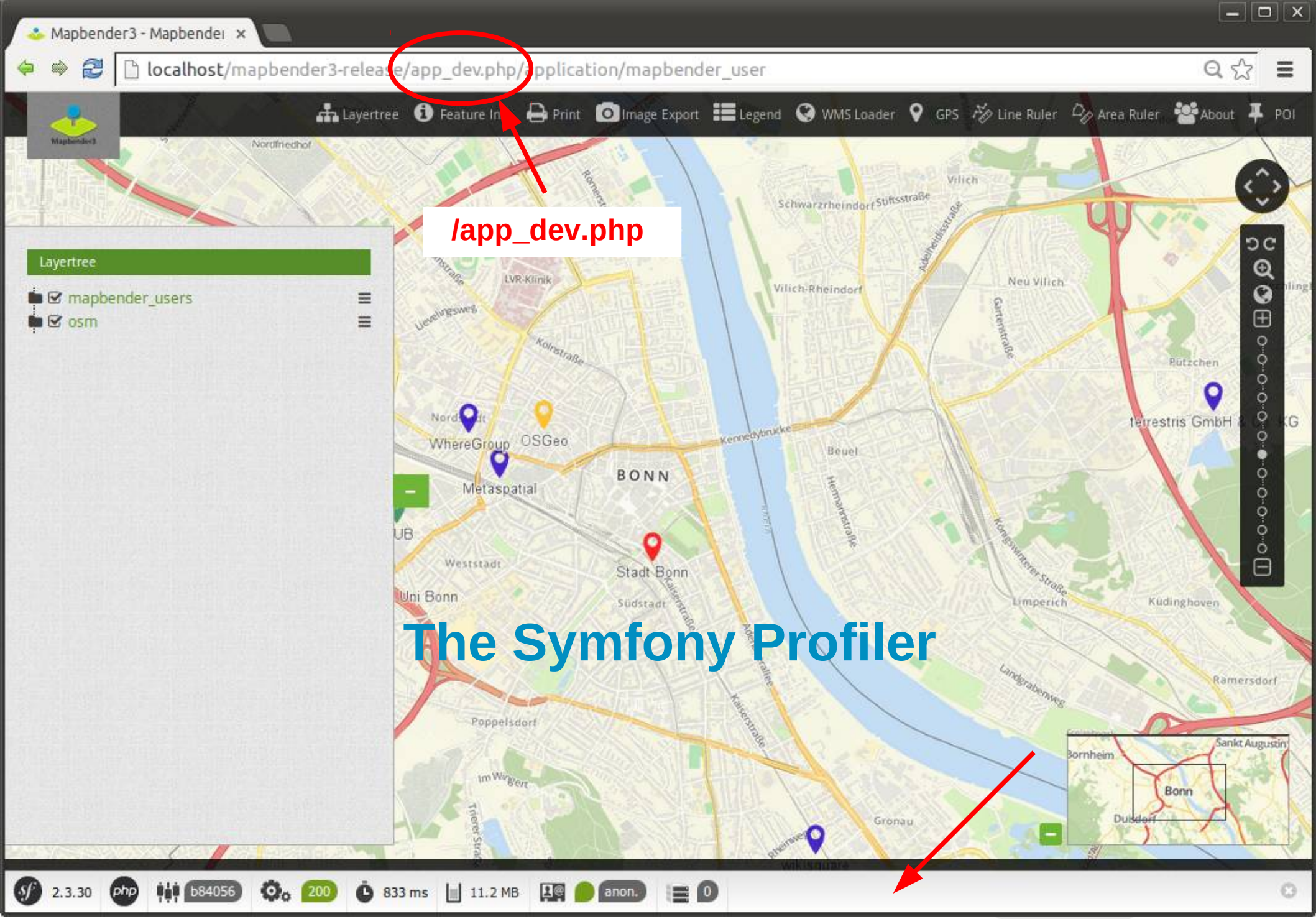
  http://localhost/mapbender/app_dev.php

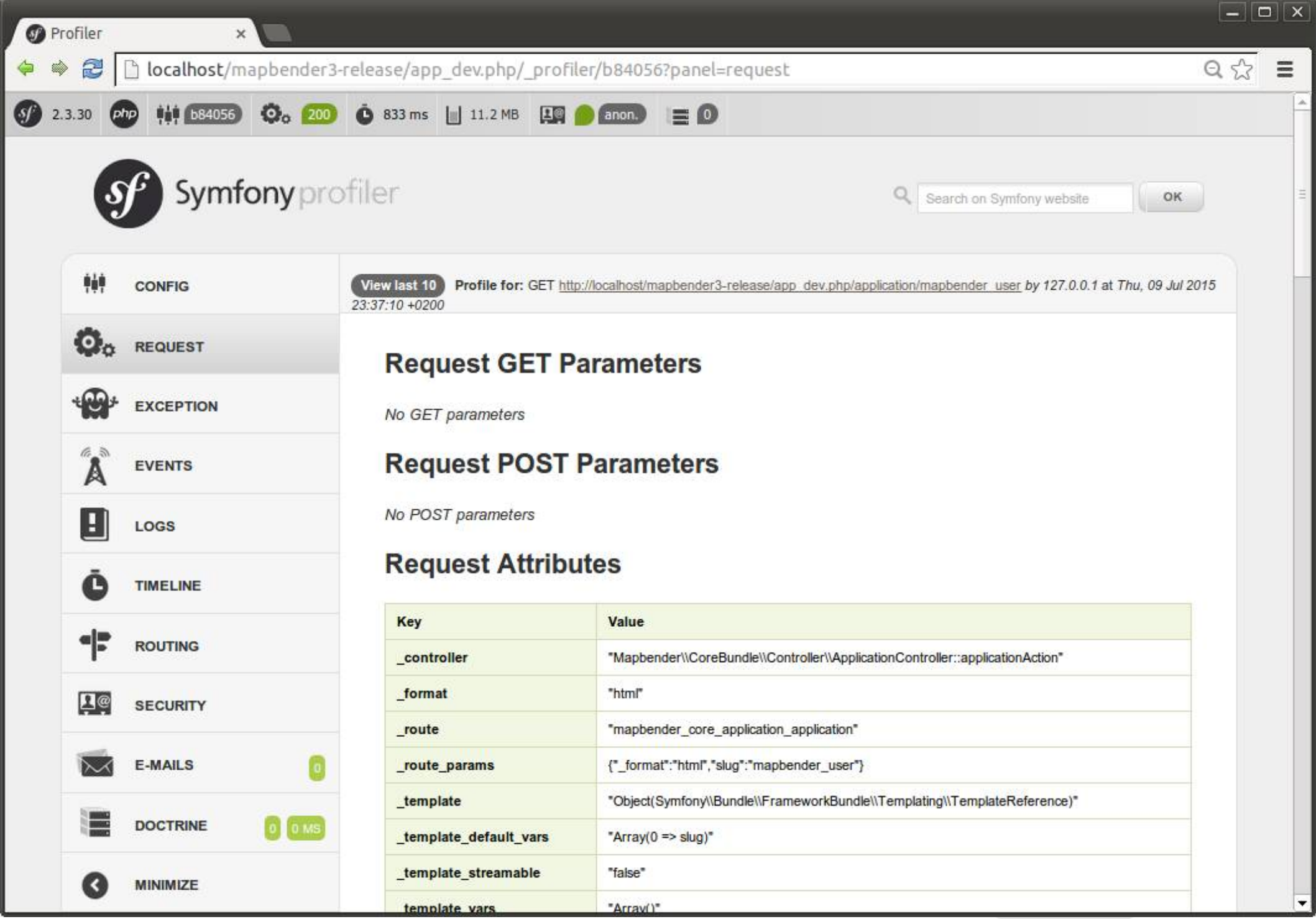
- Productive mode

  http://localhost/mapbender/app.php

# Symfony config.php




Mapbender3 - Mapbender
localhost/mapbender3-release/app_dev.php/application/mapbender_user
Layertree
Feature In
Print
Image Export
Legend
WMS Loader
GPS
Line Ruler
Area Ruler
About
POI
/app_dev.php
Layertree
mapbender_users
osm
WhereGroup
OSGeo
Metaspatial
BONN
Stadt Bonn
Uni Bonn
Beuel
Vilich
Vilich-Rheindorf
Neu Vilich
Pützchen
terrestris GmbH
Limperich
Küdinghoven
Ramersdorf
Poppelsdorf
Gronau
Bornheim
Sankt Augustin
Bonn
Düsseldorf
The Symfony Profiler
2.3.30
b84056
200
833 ms
11.2 MB
anon.
0


Profiler
localhost/mapbender3-release/app_dev.php/_profiler/b84056?panel=request
2.3.30
b84056
200
833 ms
11.2 MB
anon.
0
Symfony profiler
Search on Symfony website
OK
CONFIG
REQUEST
EXCEPTION
EVENTS
LOGS
TIMELINE
ROUTING
SECURITY
E-MAILS
0
DOCTRINE
0
0 MS
MINIMIZE
View last 10
Profile for: GET http://localhost/mapbender3-release/app_dev.php/application/mapbender_user by 127.0.0.1 at Thu, 09 Jul 2015 23:37:10 +0200
Request GET Parameters
No GET parameters
Request POST Parameters
No POST parameters
Request Attributes
Key
Value
_controller
"Mapbender\\CoreBundle\\Controller\\ApplicationController::applicationAction"
_format
"html"
_route
"mapbender_core_application_application"
_route_params
{"_format":"html","slug":"mapbender_user"}
_template
"Object(Symfony\\Bundle\\FrameworkBundle\\Templating\\TemplateReference)"
_template_default_vars
"Array(0 => slug)"
_template_streamable
"false"
_template_vars
"Array()"

# Find Mapbender on OSGeoLive?

- ALIAS mapbender refers to:
  /var/www/html/mapbender/web/
- app_dev.php → mapbender/web/app_dev.php
- Mapbender:
  mapbender/mapbender/src/Mapbender/CoreBundle

# Enjoy YAML syntax!

- Symfony configuration via YAML
- Mapbender configure database, language, mailer & more
  - parameters.yml
  - config.yml
- Mapbender application can be defined in YAML
    - mapbender/app/config/applications/
    - Define your application and services

# Mapbender database

- PostgreSQL, SQLite, ORACLE, MySQL, MS SQL
- PostgreSQL is recommended!
- Tables for WMS, User, Group, Layers etc.
- Doctrine integrated in Symfony provides database abstraction layer

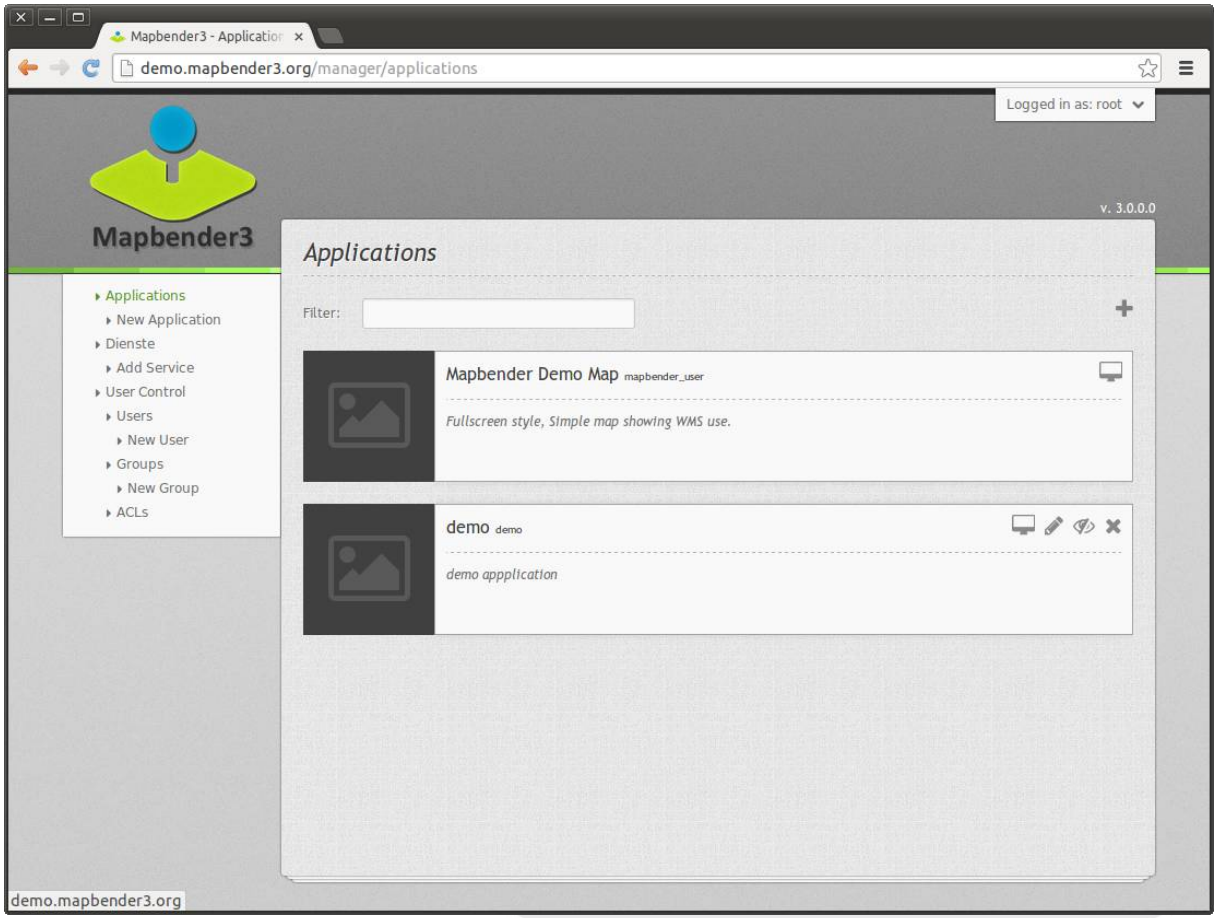
# Templating

- **Template** → Reference in mapbender.yml:
  - Mapbender\CoreBundle\Template\Fullscreen
- **Css-File**
  FOM/CoreBundle/Resources/public/css/frontend/
  - mapbender3_theme.css → Colour, Icons, Fonts
  - fullscreen.scss
- **Twig Template**

  Mapbender/CoreBundle/Resources/views/fullscreen.html.twig

# Application Overview

- Application overview
- Call sets Session to Anonymous User
- View title, description, screenshot
- Start Application



# Login

- root user is created on installation
- You can provide Register and Forgot password functionality

Welcome to Mapbender | Mapbender - Chromium

Welcome to Mapbe

https://mapbender.org/?q=en

# Mapbender

Download

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## Welcome to Mapbender

**Welcome to Mapbender**

The open source software Mapbender is a content management system for geospatial data services and map applications. With Mapbender you can create applications without writing a single line of code. Based on state-of-the-art technologies Mapbender is a flexible client for OGC services.

Mapbender is based on the frameworks Symfony, JQuery and OpenLayers.

Read more

Deutsch

16.-21.07.2018 FOSS4G Europe Conference Guimarães (Portugal)

14.-18.08.2018 FOSS4G Dar es Salaam (Tansania)

OSGeo Project

Follow us on Twitter
https://twitter.com/mapbender/

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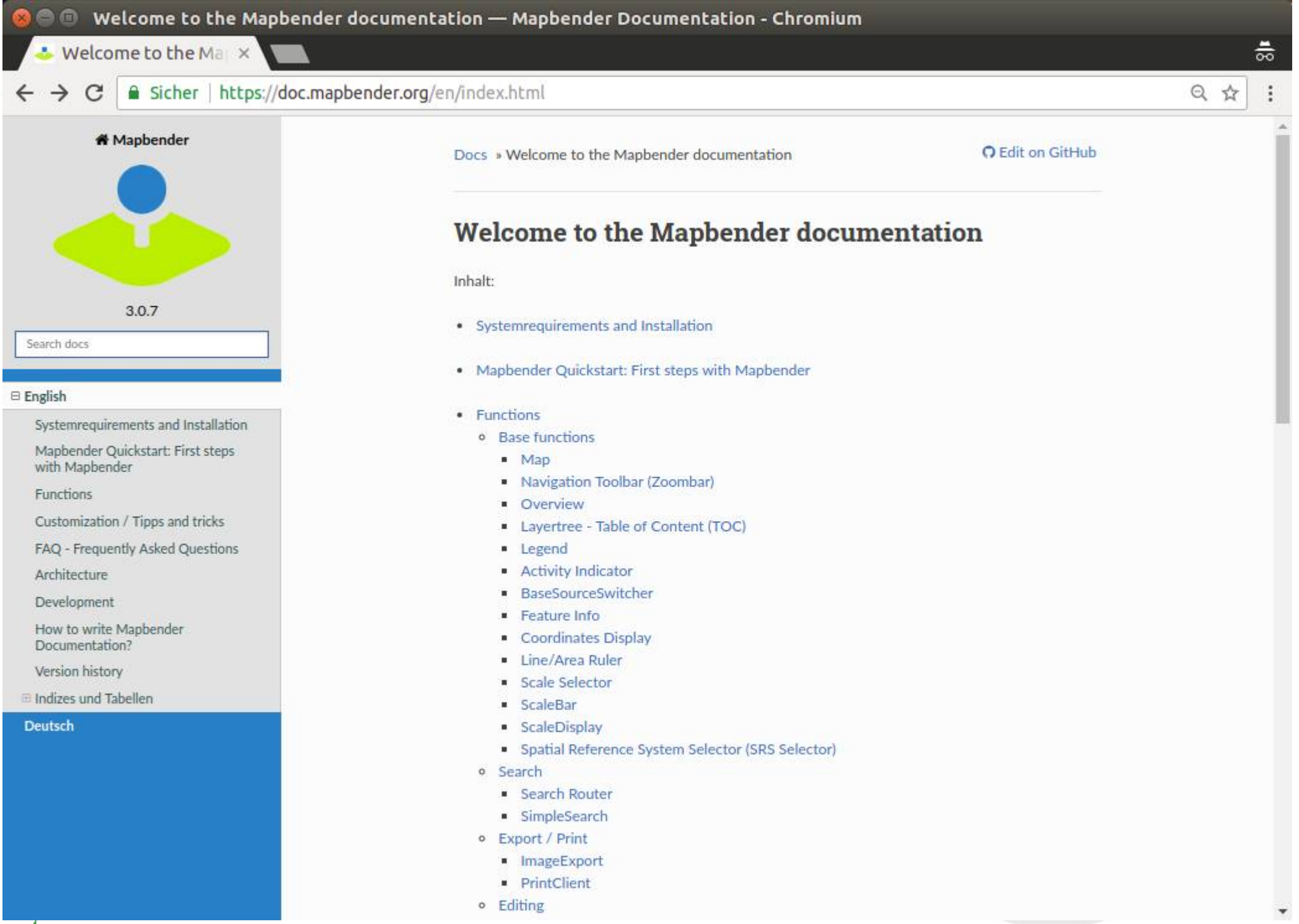
@mapbender

Nutzen Sie die Möglichkeiten der #OSGeoLive für den einfachen Einstieg in #Mapbender als #WebGIS @osgeolive

Jul 6, 2018


Welcome to the Mapbender documentation — Mapbender Documentation - Chromium
Welcome to the Ma
Sicher | https://doc.mapbender.org/en/index.html
Mapbender
3.0.7
Search docs
English
Systemrequirements and Installation
Mapbender Quickstart: First steps with Mapbender
Functions
Customization / Tipps and tricks
FAQ - Frequently Asked Questions
Architecture
Development
How to write Mapbender Documentation?
Version history
Indizes und Tabellen
Deutsch
Docs » Welcome to the Mapbender documentation
Edit on GitHub
Welcome to the Mapbender documentation
Inhalt:
Systemrequirements and Installation
Mapbender Quickstart: First steps with Mapbender
Functions
Base functions
Map
Navigation Toolbar (Zoombar)
Overview
Layertree - Table of Content (TOC)
Legend
Activity Indicator
BaseSourceSwitcher
Feature Info
Coordinates Display
Line/Area Ruler
Scale Selector
ScaleBar
ScaleDisplay
Spatial Reference System Selector (SRS Selector)
Search
Search Router
SimpleSearch
Export / Print
ImageExport
PrintClient
Editing

# Hands on

# Hands on – Part I

- Load WMS
- Create your own Application
- Populate application with Services
- Get elements for your application
- Create user and groups
- Assign application to user and groups
- Assign element access to user and groups

# Hands on – Part II

- Print
- Define an individual Design
- Create your own bundle
- Setup a Search module
- Setup a Digitizer module

# Mapbender Documentation

- Mapbender Quickstart
  https://doc.mapbender.org/en/quickstart.html

- Element documentation

  https://doc.mapbender.org/en/functions.html

# Load WMS

OSM WMS

- https://osm-demo.wheregroup.com/service?REQUEST=GetCapabilities&Service=WMS&Version=1.3.0
- http://localhost/cgi-bin/qgis_mapserv.fcgi?map=/usr/local/share/qgis/QGIS-NaturalEarth-Example.qgz&SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities
- Find a WMS Server for you needs
- https://inspire-geoportal.ec.europa.eu/
- https://inspire.ec.europa.eu/INSPIRE-in-your-Country/RO

# WMS Romania

- WMS Romania
- http://geo-spatial.org/geoserver/omc/ows?service=wms&version=1.3.0&REQUEST=getCapabilities
- Find some more

# Create your own Application

- Generate an application FOSS4G (Fullscreen Template)
- Switch to tab Layout
- Insert Map-Element in region content
  - SRS EPSG:4326
  - MAX EXTENT of Romania

    lower left 20.1139 43.5602

    upper right 29.8267 48.3647
  - Start Extent Bucharest

    lower left 25.8762 44.2494 upper right 26.4729 44.7770
  - Add some more scales

# Load Services to Mapbender Repository

- Load Services to your Mapbender Repository
- Source → Add Source
- Load WMS
  https://osm-demo.wheregroup.com/service?REQUEST=GetCapabilities&Service=WMS&Version=1.3.0

- Load other Services from Romania

# Populate application with Services

- Switch to tab Layersets
- Create a layerset for the main map and a layerset for the overview map or layersets for different topics
- Add WMS to your layersets
- If necessary configure the services

# Activate Layersets in Map-Element

- Go back to layout to your map-Element
- Choose the layerset/s you would like to display in the main map

# Add elements to your application

- Find information about the elements in the documentation
- https://doc.mapbender.org/en/functions.html

Try to integrate some Elements:

- Scaleselect, Navigation Toolbar, Scaledisplay, ShowCoordinates, Overview
- Layertree, Legend, Redlining in the sidepane

# Discover more elements

- Find information about the elements in the documentation

  https://doc.mapbender.org/en/functions.html

- Measure, FeatureInfo, Image Export, LoadWMS
  Notice: Some elements need a button to get activated
- HTML element
- BaseSourceSwitcher
- PrintClient

# Easy way to create an application

- Copy an existing application
- reorder elements and delete everything you do not need
- add your own services

# Create user

- Create user foss4g
- User control → User → New User
- Define user name, email and password

# Assign application to user

- Application → pen → Application Security
- + → Select user → Give permission **view**
- **Access Control List**

- Test the permission by registering as user foss4g
- Note: You also can assign access to single elements

# Create a group

- Create a group called **workshop**
- User control → Groups → New Group
- Add your user **foss4g** to the group **workshop**
- Assign an application to your group **workshop**

# CSS Editor

- Default style can be overwritten
- Switch to tab css-Editor
- Define a different background color
- Examples:
- https://doc.mapbender.org/en/customization/css.html

# Try the workshop bundle

- Find a workshop bundle at https://github.com/mapbender/mapbender-workshop
- https://doc.mapbender.org/en/customization/templates.html
- Change the title of the twig file
- Change css parameter in the scss file

# Search

- Define search with SearchRouter
- SQL Search https://doc.mapbender.org/en/customization/templates.html

- Setup a database connection in parameters.yml and config.yml
- Define the search form as YAML definition

# Digitizer

- Define digitze functionality
- Edit directly on a database table
- https://doc.mapbender.org/en/functions/editing/digitizer.html

# How can I participate?

- Testing
- Reporting Feedback and Bugs
- Documentation
- Programming
- Mailing lists
- Translation

Join us during the FOSS4G Community Sprint on Saturday! Everyone ist welcome!

# Thanks you for your attention!

If you have any question please contact us

Astrid Emde (astrid.emde@wheregroup.com)

or

mapbender-users@list.osgeo.org

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