



# **Mapbender3 Workshop**

Astrid Emde

FOSS4G-Europe 2017  
Paris Marne-la-Vallée

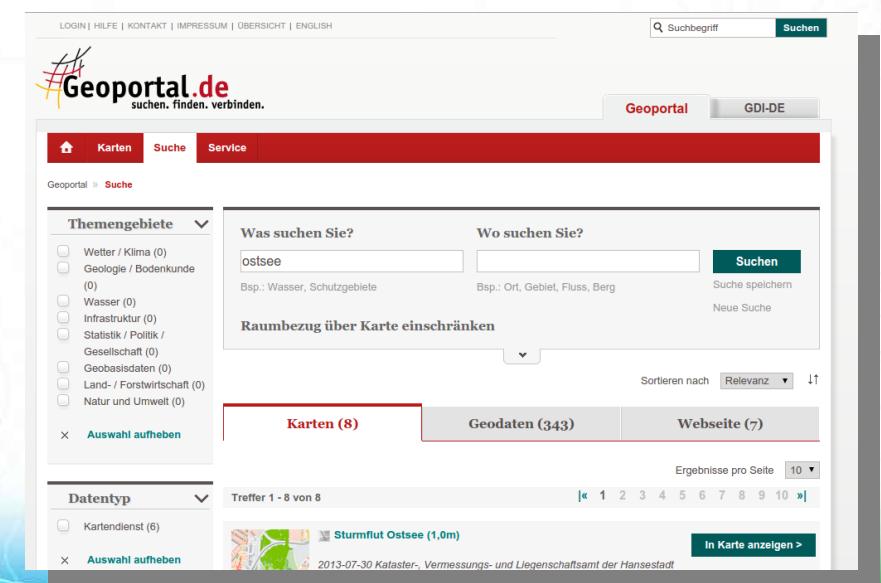
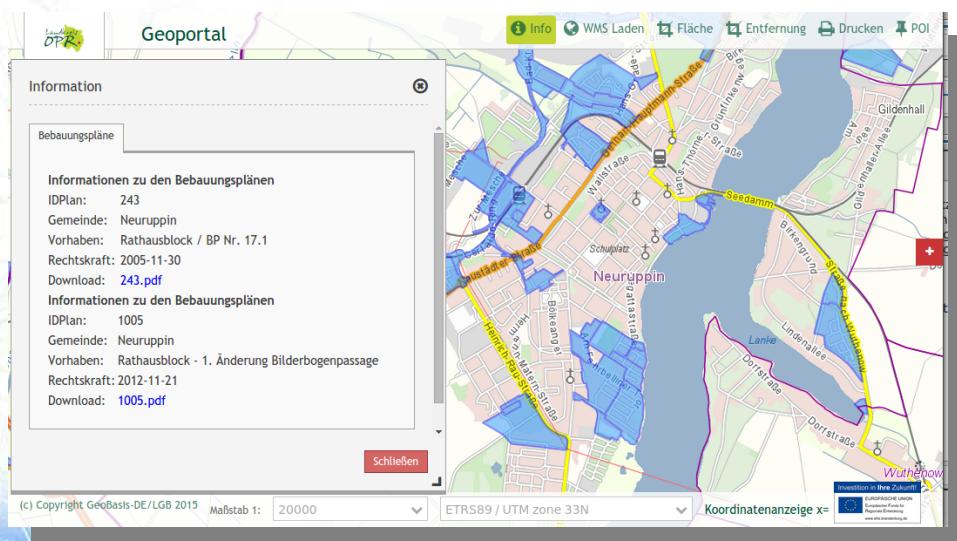
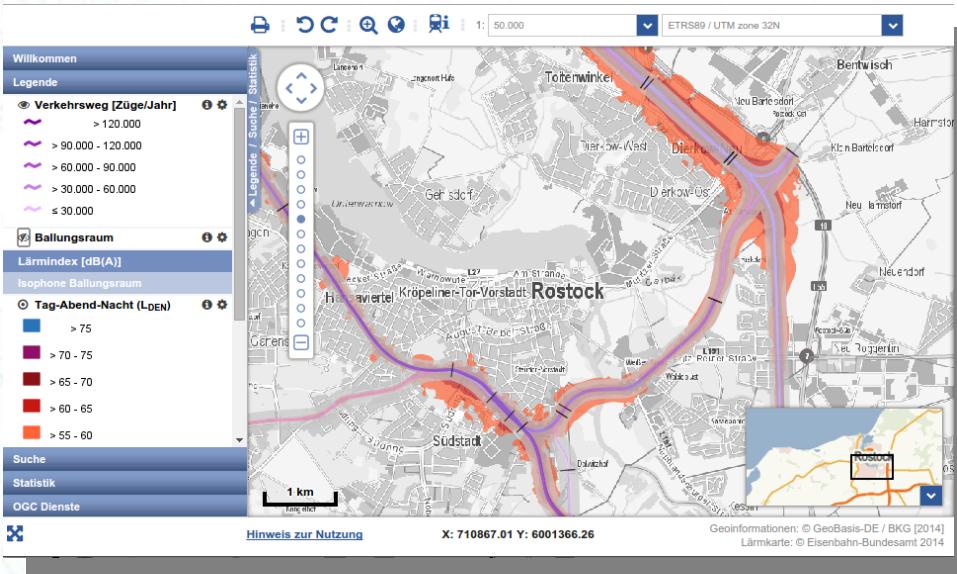


## Mapbender Developer Team

- Astrid Emde
- Mapbende Developer Team since 2004
- Mapbender PSC (Project Steering Committee)
- Project management and development, Trainings for MapServer, PostgreSQL/PostGIS, Mapbender, GeoServer
- Testing, Documentation, Release
- WhereGroup Bonn



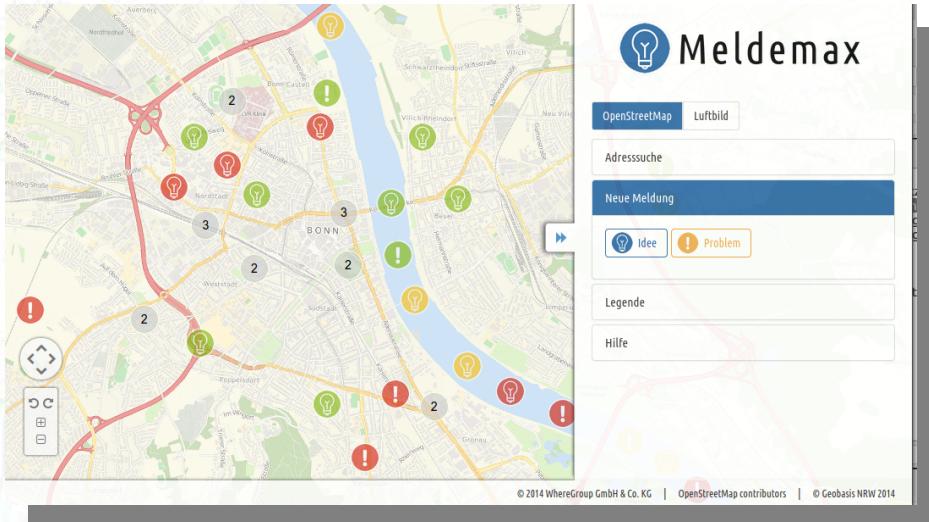
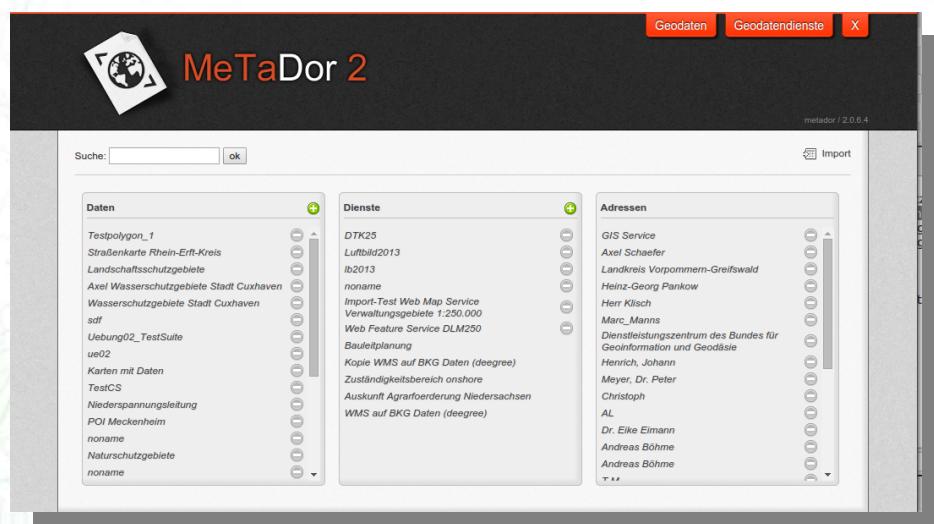
# WhereGroup





# WhereGroup

**Meldemax**  
 Platform for  
 ideas & problems  
 in your town

**MetaDor2**  
 Metadateneditor

**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

Mapbender3

Layertree

- Mapbender Users
  - Name
  - User
- OSM Demo

Mapbender3 – Astrid Emde FOSS4G Europe 2017

5 / 51



# 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 Mapbender3 use?

- Symfony2 as PHP framework
  - Doctrine, Twig, Monolog, Bootstrap...
  - Bundles
- OpenLayers2
- MapQuery
- jQuery
- SQLite, PostgreSQL, MySQL, Oracle database



# Systemrequirements

- >= PHP 5.5.5 (php5)
- PHP CLI interpreter (php5-cli)
- PHP SQLite extension (php5-sqlite)
- PHP PostgreSQL extension (php5-pgsql)
- PHP cURL extension (php5-curl)
- PHP Internationalization-extension (php5-intl)
- PHP GD (php5-gd) (Print)
- PHP FileInfo (Print)
- PHP Zip
- APACHE mod\_rewrite
- OpenSSL
- See requirements

GitHub, Inc. [US] https://github.com/mapbender



GitHub

Search GitHub

Explore Features Enterprise Blog

Sign up

Sign in



## Mapbender Development Team

<http://mapbender3.org>[mapbender\\_dev@lists.osgeo.org](mailto:mapbender_dev@lists.osgeo.org)

Filters ▾

Find a repository...

### mapbender-gpsposition

Updated 6 hours ago

JavaScript ★ 0 ⚡ 0

# Mapbender3 Code in Git

### mapbender-starter

Mapbender3 starter project

Updated 7 hours ago

PHP ★ 12 ⚡ 4

### mapbender

The PHP web mapping framework

Updated 7 hours ago

PHP ★ 17 ⚡ 10

### mapbender-activityindicator

Updated 7 hours ago

JavaScript ★ 0 ⚡ 0

### mapbender-ruler

Updated 9 hours ago

JavaScript ★ 0 ⚡ 0

### People





## Installation

- Documentation of the Installation
- Workshop Installation `install_mapbender3.sh` of OSGeo-Live
- Download <http://mapbender3.org/en/download>
- Or use the code from GitHub  
<https://github.com/mapbender/mapbender-starter>



## Start Mapbender3

- **Symfony2 test configuration**

<http://localhost/mapbender3/config.php>

- **Developer mode**

[http://localhost/mapbender3/app\\_dev.php](http://localhost/mapbender3/app_dev.php)

- **Productive mode**

<http://localhost/mapbender3/app.php>



Symfony Configuration - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Symfony Configuration 

localhost/mapbender3/config.php   

 Welcome!

Welcome to your new Symfony project.

This script will guide you through the basic configuration of your project. You can also do the same by editing the '`app/config/parameters.yml`' file directly.

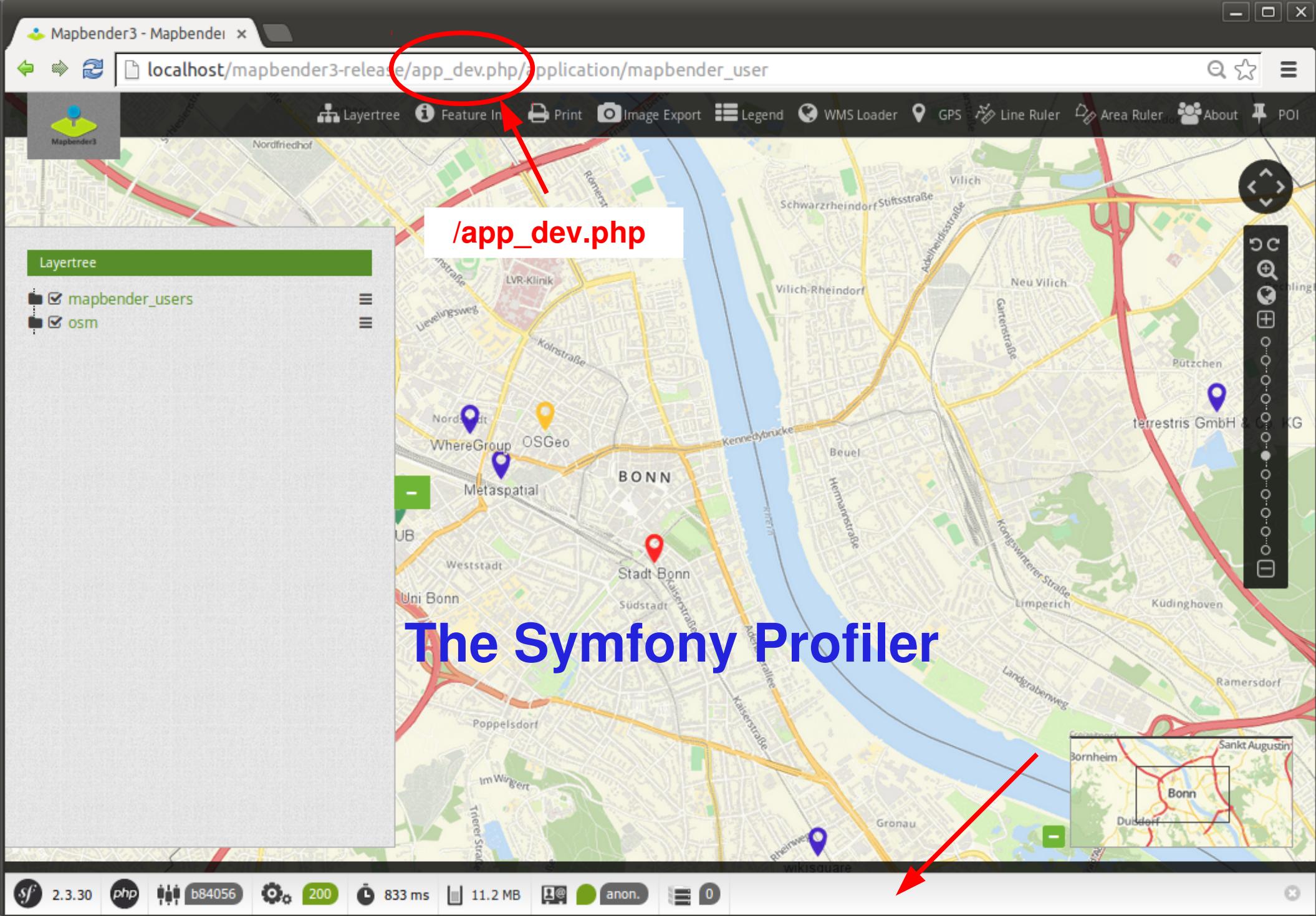
**MAJOR PROBLEMS**

Major problems have been detected and **must** be fixed before continuing:

1. Set the "`date.timezone`" setting in `php.ini*` (like `Europe/Paris`).

\* Changes to the `php.ini` file must be done in "`/etc/php5/apache2/php.ini`".

[Re-check configuration >](#)





## CONFIG

[View last 10](#) Profile for: GET [http://localhost/mapbender3-release/app\\_dev.php/application/mapbender\\_user](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

## EXCEPTION

## EVENTS

## LOGS

## TIMELINE

## ROUTING

## SECURITY

## E-MAILS 0

## DOCTRINE 0 0 MS

## MINIMIZE

## 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 Mapbender3 on OSGeo-Live?

- ALIAS mapbender3 refers to:  
`/var/www/html/mapbender3/web/`
- `app_dev.php` → `mapbender3/web/app_dev.php`
- Mapbender:  
`mapbender3/mapbender/src/Mapbender/CoreBundle`



## YAML

- Symfony configuration in YAML
- Mapbender3 application can be defined in YAML
  - /app/config/mapbender.yml
  - Define your application and services
- Mapbender3 configure database, language, mailer & more
  - parameters.yml
  - config.yml



## Mapbender3 database

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



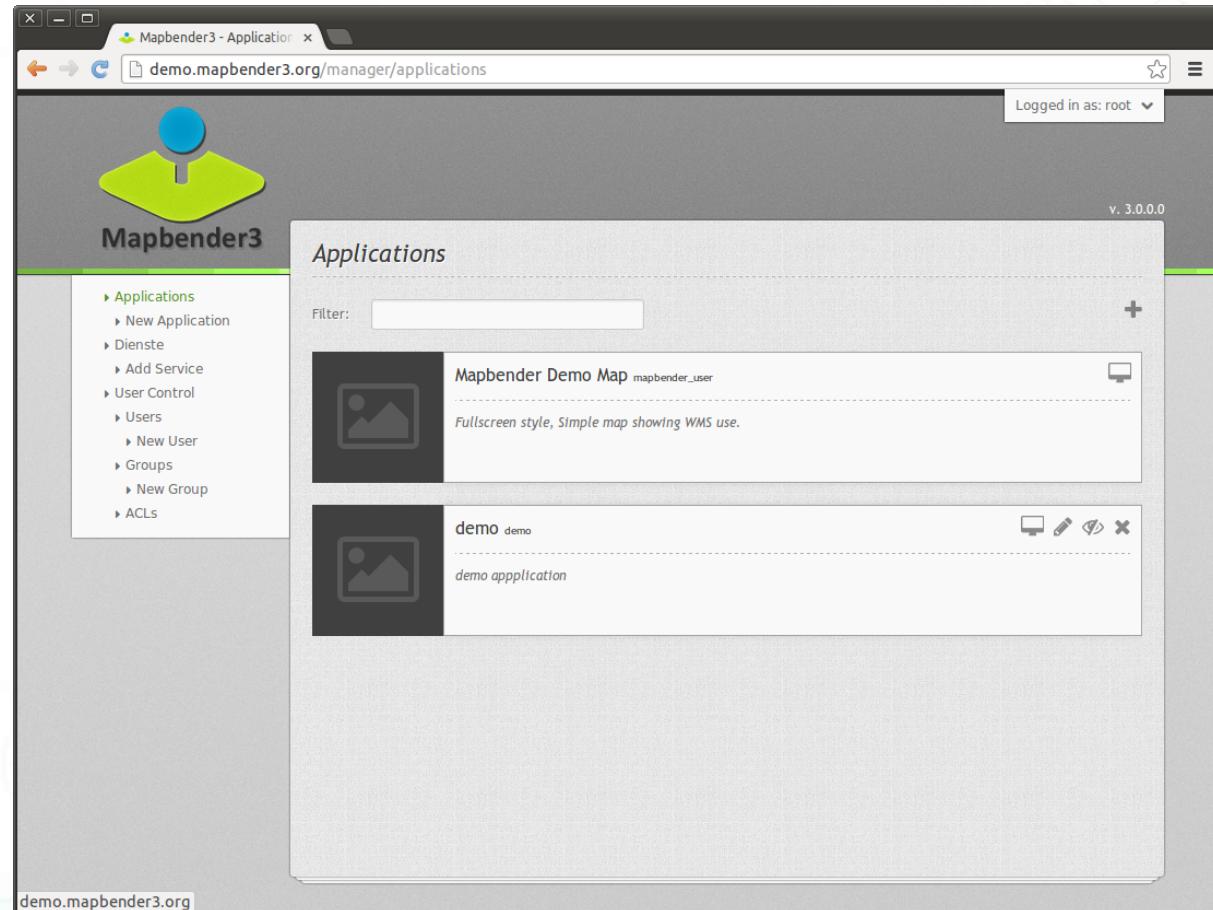
# Templating

- **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



The screenshot shows a web browser window titled "Mapbender3 - Application" with the URL "demo.mapbender3.org/manager/applications". The page displays a sidebar menu with options like Applications, Dienste, and User Control, and a main panel titled "Applications" listing two entries:

- Mapbender Demo Map** (mapbender\_user)  
Fullscreen style, Simple map showing WMS use.
- demo demo**  
demo application



# Login

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

*Login*

---

Username:

Password:

[▶ Register](#) [▶ Forgot password?](#)



# Mapbender3

[Download](#)[Home](#) [Was ist Mapbender3?](#) [Los geht's](#) [Dokumentation](#) [Community](#) [Galerie](#)

• • • • •

## Willkommen auf mapbender3.org

### Willkommen auf der Mapbender3-Seite

Mapbender ist ein Content Management System für Kartenanwendungen und Geodatendienste. Die Software ist in PHP und JavaScript implementiert. Mapbender wird mit vorkonfigurierten Anwendungen zur Anzeige, Navigation und Abfrage von Karten ausgeliefert. Alle Anwendungen können über die Weboberfläche den eigenen Bedürfnissen angepasst oder komplett neu implementiert werden.

Mapbender3 ist der Nachfolger der erfolgreichen Mapbender Version 2 und basiert auf aktuellen Technologien wie dem Web Application Framework Symfony2, JQuery und OpenLayers.

[Weiterlesen](#)[Open HUB](#) [\\$33.8M Cost](#)

Folgen Sie uns auf Twitter:

[@Mapbender folgen](#)



## Table Of Contents

Welcome to Mapbender3's documentation!

▪ Indices and tables

## Previous topic

Welcome to the Mapbender3 documentation

## Next topic

The Book

## This Page

Show Source

## Quick search

Go

Enter search terms or a module, class

# Welcome to Mapbender3's documentation!

## Contents:

- [The Book](#)
  - [Installation](#)
  - [Git-based installation](#)
  - [Using the quick\\_install.py script](#)
  - [Components](#)
  - [Directory structure in Mapbender3](#)
  - [Concepts](#)
  - [Configuring the database](#)
  - [Translation in Mapbender3](#)
  - [How to create your own Template?](#)
  - [How to change the style of your application with the css-editor?](#)
  - [Mapbender3 Quickstart](#)
  - [Mapbender templates](#)
  - [Glossary](#)
  - [Version history](#)
- [Bundle Documentation](#)
  - [MapbenderCoreBundle](#)
  - [MapbenderWMSBundle](#)
  - [MapbenderWMCBundle](#)
  - [FOMUserBundle - Users and Security](#)
  - [FOMManagerBundle - Using the FOM Manager](#)
  - [OwsProxy3CoreBundle](#)
  - [How to create a Bundle?](#)
- [The Developer's Book](#)
  - [Introduction](#)



# 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



# Mapbender3 Quickstart

- <http://doc.mapbender3.org/en/book/quickstart.html>
  
- element documentation
- <http://doc.mapbender3.org/en/bundles/Mapbender/CoreBundle/index.html>

# Load WMS Europe & France

- <http://osm-demo.wheringroup.com/service?REQUEST=GetCapabilities&Service=WMS&Version=1.3.0>
- [http://wms.wheringroup.com/cgi-bin/germany\\_workshop.xml?VERSION=1.1.1&REQUEST=GetCapabilities&SERVICE=WMS](http://wms.wheringroup.com/cgi-bin/germany_workshop.xml?VERSION=1.1.1&REQUEST=GetCapabilities&SERVICE=WMS)

## France

- <http://geoservices.brgm.fr/geologie?SERVICE=WMS&VERSION=1.1.1&REQUEST=GetCapabilities>
- <http://geoservices.brgm.fr/risques?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities>
- <http://georisques.gouv.fr/services?&SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities>



## GEOportal.NRW

- <https://www.geoportal.nrw.de/application-geokatalog/start/index.php>
- [http://www.wms.nrw.de/geobasis/wms\\_nw\\_dtk?SERVICE=WMS&VERSION=1.3.0&Request=getCapabilities](http://www.wms.nrw.de/geobasis/wms_nw_dtk?SERVICE=WMS&VERSION=1.3.0&Request=getCapabilities)
- [http://www.wms.nrw.de/geobasis/wms\\_nw\\_alkis\\_gelb?REQUEST=GetCapabilities&Service=WMS&Version=1.3.0](http://www.wms.nrw.de/geobasis/wms_nw_alkis_gelb?REQUEST=GetCapabilities&Service=WMS&Version=1.3.0)
- [http://www.wms.nrw.de/geobasis/wms\\_nw\\_dop40??SERVICE=WMS&VERSION=1.3.0&Request=getCapabilities](http://www.wms.nrw.de/geobasis/wms_nw_dop40??SERVICE=WMS&VERSION=1.3.0&Request=getCapabilities)

## Load WMS



- GDI-DE
- Search earthquake and geology
- [http://www.geoportal.rlp.de/mapbender/php/wms.php?  
inspire=1&layer\\_id=26216&REQUEST=GetCapabilities&  
SERVICE=WMS](http://www.geoportal.rlp.de/mapbender/php/wms.php?inspire=1&layer_id=26216&REQUEST=GetCapabilities&SERVICE=WMS)
- [http://www.wms.nrw.de/gd/GK100?REQUEST=GetCapabi  
lities&SERVICE=WMS](http://www.wms.nrw.de/gd/GK100?REQUEST=GetCapabi<br/>lities&SERVICE=WMS)



## Create your own Application

- Generate an application called FOSS4G
- Switch to tab Layout
- Insert Map-Element in region content
  - SRS EPSG:4326
  - MAX EXTENT France
    - lower left -4.6 42.4 – upper right 9.1 51.4
  - Start Extent Paris / Marne-le-Vallé
    - lower left 2.5846 48.839
    - upper right 2.5904 48.8436



## 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
- <http://doc.mapbender3.org/en/bundles/Mapbender/CoreBundle/>

Try to integrate some Elements:

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



## Discover more elements

- Find information about the elements in the documentation
- <http://doc.mapbender3.org/en/bundles/Mapbender/CoreBundle/>
- Measure, FeatureInfo, Image Export, LoadWMS  
Notice: Some elements need a button to get activated
- HTML element
- BaseSourceSwitcher
- PrintClient



## Easy way to get an application

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



## Create user

- Create user foss4ge
- 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 can assign access to single elements



## Create a group

- Create a group called **workshop**
- User control → Groups → New Group
- Add your user **foss4ge** 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:

<http://doc.mapbender3.org/en/book/css.html>



## Try the workshop bundle

- Find a workshop bundle at  
<https://github.com/mapbender/mapbender-workshop>
- <http://doc.mapbender3.org/en/book/templates.html>
- Change the title of the twig file
- Change css parameter in the scss file



# Search

- Define search with SearchRouter
- SQL Search
- [http://doc.mapbender3.org/en/bundles/Mapbender/CoreBundle/elements/search\\_router.html](http://doc.mapbender3.org/en/bundles/Mapbender/CoreBundle/elements/search_router.html)
- Setup a database connection in parameters.yml and config.yml
- Define the search form as YAML definition



# Digitizer

- Define digitize functionality
- Edit directly on a database table
- YAML definition
- <http://doc.mapbender3.org/en/bundles/Mapbender/CoreBundle/elements/digitizer.html>



## More about Mapbender3

- <http://mapbender3.org>
- Mapbender3 Code <http://github.com/mapbender>
- Version History  
<http://doc.mapbender3.org/en/book/versions.html>
- Milestones / Bugtracker  
<https://github.com/mapbender/mapbender/issues>



## How can I participate?

- Testing
- Reporting Feedback and Bugs
- Documentation
- Programming (Git-Code)
- Mailing lists
- Translation - Join the Translation Sprint is week !!!



## Thanks you for your attention!

If you have any question please contact us

Astrid Emde ([astrid.emde@wherergroup.com](mailto:astrid.emde@wherergroup.com))

or

[mapbender-users@list.osgeo.org](mailto:mapbender-users@list.osgeo.org)

With the kind support of



WhereGroup

Creative Commons Share Alike License 3.0

Copyright © 2017: Astrid Emde