



WhereGroup



Mapbender to create web application easily

Astrid Emde

FOSS4G-Europe 2018

Guimarães (Portugal)

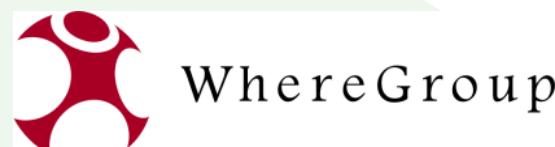


Mapbender – Astrid Emde WhereGroup FOSS4G Europe 2018



Astrid Emde

- Mapbender 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

- > 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!



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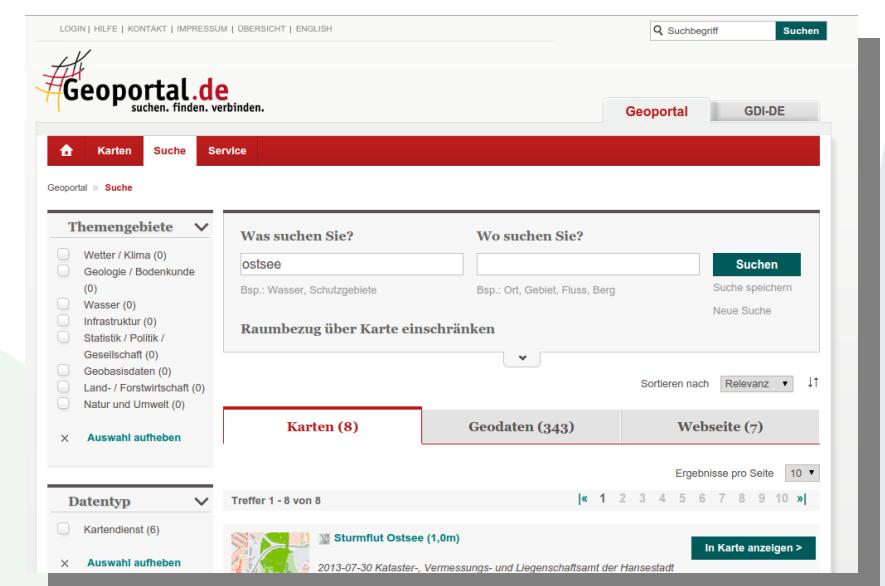
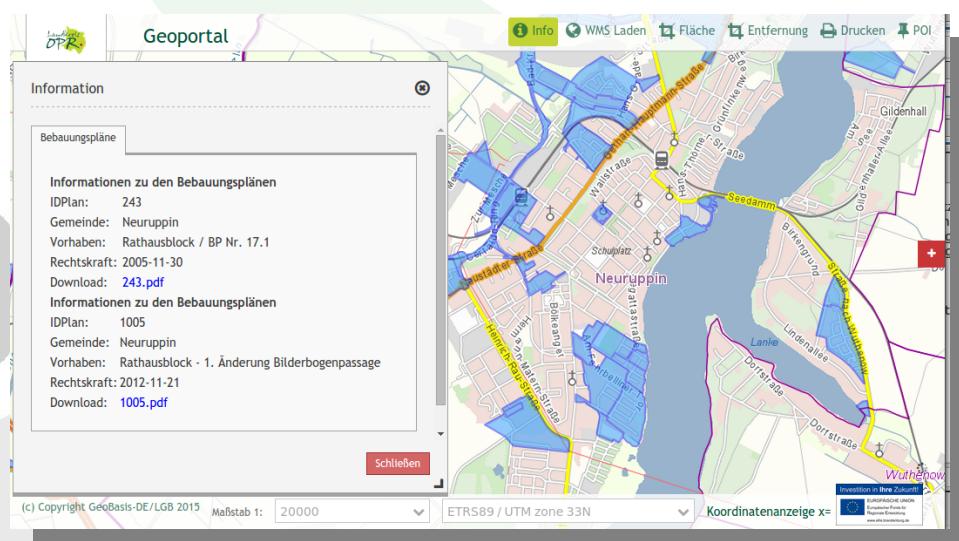
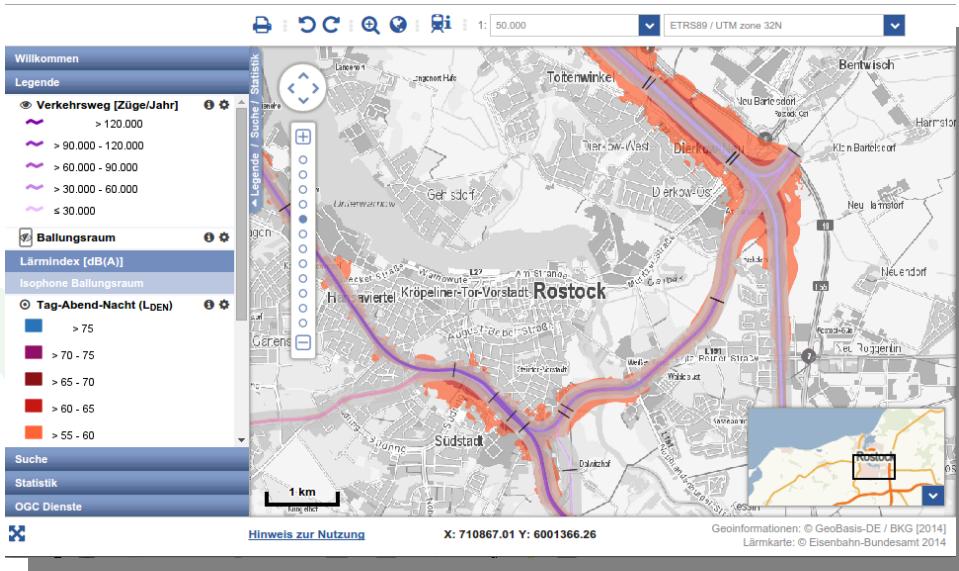
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The screenshot shows the Metador interface with a sidebar for tools like CSV-Download and a search bar at the top. Three datasets are listed:

- Koloss von Rhodos**: A bronze statue of Helios, built by Chares of Lindos around 280 BC.
- Mausolleion**: A mausoleum built by Mausolus, King of Caria, in Halicarnassus (modern Bodrum).
- Pharos von Alexandria**: A lighthouse located on the island of Pharos near Alexandria.

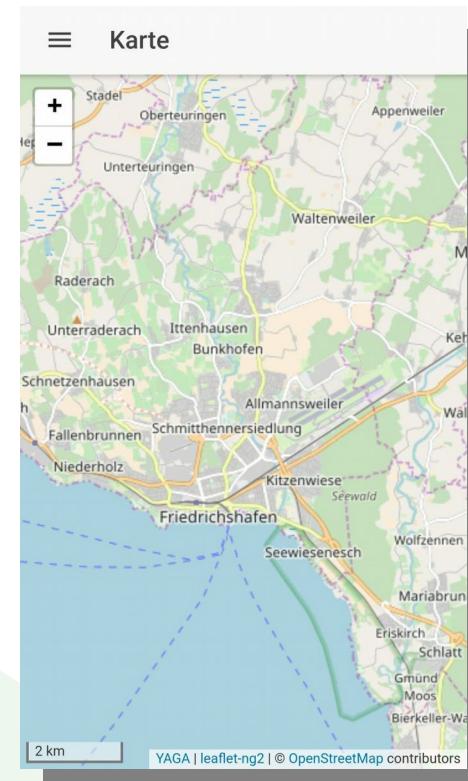
Each dataset card includes a thumbnail, a title, a detailed description, and download links for PDF, HTML, and XML.

Metador Metadata editor



Mops

Offline Client, YAGA



Consulting, Training & more



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Mapbender3 - Mapbender

demo.mapbender3.org/application/mapbender_user

Mapbender

Layertree Feature Info Print Image Export Legend WMS Loader GPS Line Ruler Area Ruler About POI

Layertree

- Mapbender Users
 - Name
 - User
- OSM Demo

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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?

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





Systemrequirements

- >= PHP 5.6 (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

Filters ▾

Find a repository...

mapbender-gpsposition

Updated 6 hours ago

JavaScript ★ 0 ⚡ 0

Mapbender Code on GitHub

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

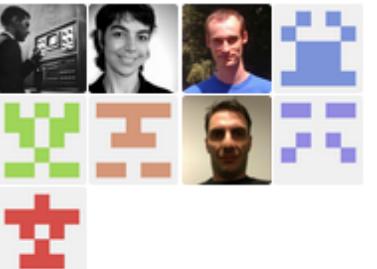
JavaScript ★ 0 ⚡ 0

mapbender-ruler

Updated 9 hours ago

JavaScript ★ 0 ⚡ 0

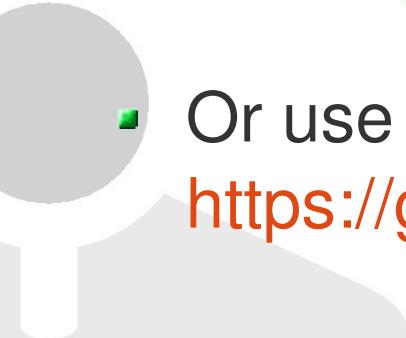
People





Installation

- Read about Mapbender installation
- Workshop Installation [`install_mapbender.sh`](#) of OSGeo-Live
- Download <http://mapbender.org/en/download>
- Or use the code from GitHub
<https://github.com/mapbender/mapbender-starter>





Start Mapbender

- Symfony2 test configuration

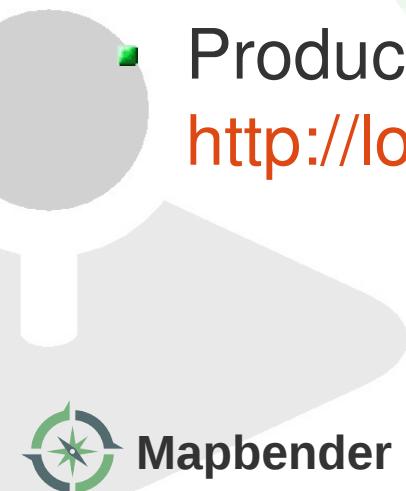
<http://localhost/mapbender3/config.php>

- Developer mode

http://localhost/mapbender3/app_dev.php

- Productive mode

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



Symfony2 config.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 >](#)

Mapbender3 - Mapbender

localhost/mapbender3-release/app_dev.php/application/mapbender_user

Mapbender3

Layertree Feature In Print Image Export Legend WMS Loader GPS Line Ruler Area Ruler About POI

Layer tree

mapbender_users osm

/app_dev.php

The Symfony Profiler

2.3.30 php b84056 200 833 ms 11.2 MB anon. 0

sf Profiler ×

localhost/mapbender3-release/app_dev.php/_profiler/b84056?panel=request

sf 2.3.30 php b84056 200 833 ms 11.2 MB anon. 0

Symfony profiler

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

CONFIG

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
<code>_controller</code>	"Mapbender\\CoreBundle\\Controller\\ApplicationController::applicationAction"
<code>_format</code>	"html"
<code>_route</code>	"mapbender_core_application_application"
<code>_route_params</code>	{"_format": "html", "slug": "mapbender_user"}
<code>_template</code>	"Object(Symfony\\Bundle\\FrameworkBundle\\Templating\\TemplateReference)"
<code>_template_default_vars</code>	"Array(0 => slug)"
<code>_template_streamable</code>	"false"
<code>template_vars</code>	"Array()"



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





Mapbender 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 is version 3.0.0.0. On the left, there is a sidebar with a "Mapbender3" logo and a navigation menu:

- Applications
 - New Application
- Dienste
 - Add Service
- User Control
 - Users
 - New User
- Groups
 - New Group
- ACLs

The main content area is titled "Applications" and contains a table with two rows:

	Applications	Description	Actions
	Mapbender Demo Map <small>mapbender_user</small>	Fullscreen style, Simple map showing WMS use.	
	demo demo <small>demo application</small>		



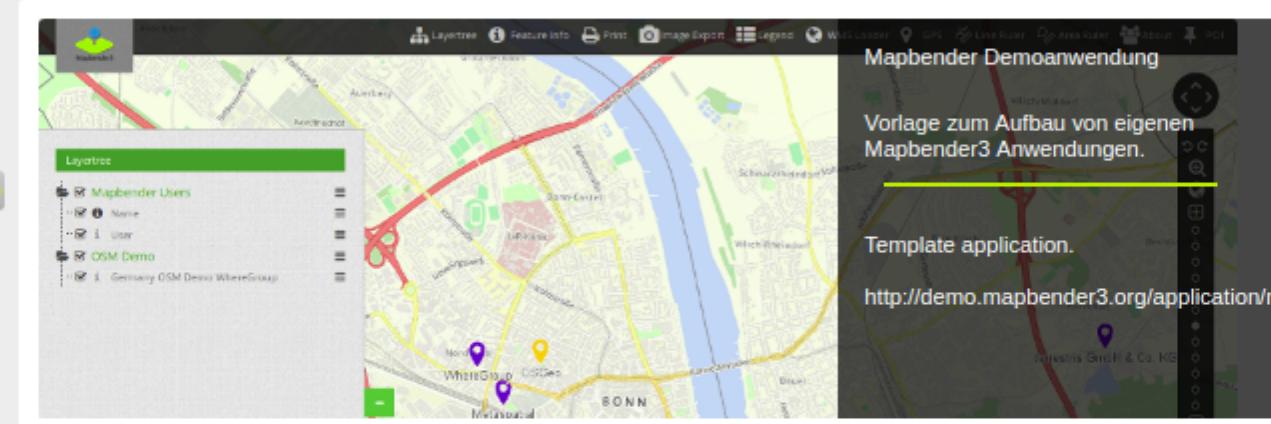


Login

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

The image shows a screenshot of a login interface. At the top, the word "Login" is displayed in a dark blue, italicized font. Below it is a horizontal dashed line. The form contains two input fields: "Username:" followed by a text input field with a single vertical bar character, and "Password:" followed by a blank text input field. At the bottom left, there are two links: "▶ Register" and "▶ Forgot password?". On the right side, there is a green rectangular button with the word "Login" in white.



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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)



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

#Mapbender



@mapbender

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

Jul 6, 2018



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](#)





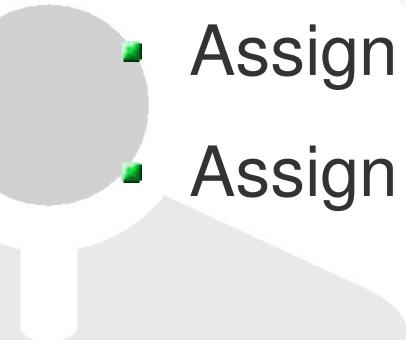
Hands on





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 Europe & Portugal

- <http://osm-demo.wheringroup.com/service?REQUEST=GetCapabilities&Service=WMS&Version=1.3.0>

Portugal

- <http://mapas.dgterritorio.pt/geoportal/catalogo.html>
- http://snig.dgterritorio.pt/portal/index.php?option=com_wrapper&view=wrapper&Itemid=354&lang=pt
- <http://www.igeo.pt/dadosabertos/listagem.aspx>





WMS Portugal

- <http://mapas.dgterritorio.pt/ows/caop/continente?service=wms&request=getcapabilities&version=1.3.0>
- <http://mapas.dgterritorio.pt/wms/mdt50m?service=wms&request=getcapabilities>
- <http://www.igeo.pt/WMS/PDM/GUIMARAES?SERVICE=WMS&REQUEST=GetCapabilities&Version=1.3.0>
- <http://www.igeo.pt/WMS/PNPOT?SERVICE=WMS&REQUEST=GetCapabilities&Version=1.3.0>
- <http://mapas.dgterritorio.pt/wms/atlasurbano2006?service=wms&request=getcapabilities>
- Taken from
<http://mapas.dgterritorio.pt/geoportal/catalogo.html>





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 Portugal
 - lower left -12 36 – upper right -3 43
 - Start Extent Guimarães
 - lower left -8.32 41.42 upper right -8.28 41.46
 - Add some more scales





Load Services to Mapbender Repository

- Load Services to your Mapbender Repository
- Source → Add Source
- Load WMS <http://osm-demo.wherengroup.com/service>
- Load other Services from Portugal





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 sidebar



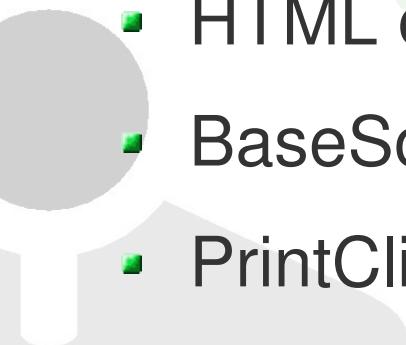


Discover more elements

- 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



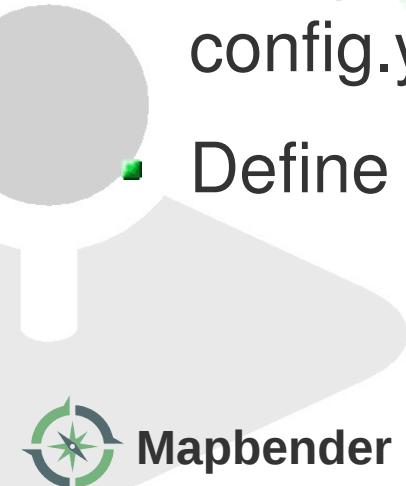


Search

- Define search with SearchRouter
- SQL Search

<https://doc.mapbender.org/en/customization/templates.html>
I

- 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
- <https://doc.mapbender.org/en/functions/editing/digitizer.html>





More about Mapbender

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





How can I participate?

- Testing
- Reporting Feedback and Bugs
- Documentation
- Programming
- Mailing lists
- Translation – Join us during the code sprint!!





Thanks you for your attention!

If you have any question please contact us
Astrid Emde (astrid.emde@wherengroup.com)

or

mapbender-users@list.osgeo.org

With the kind support of



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More about Mapbender

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- Version History
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- Milestones / Bugtracker
<https://github.com/mapbender/mapbender/issues>

