

Docker for web mapping



Examples

Carto (db) stack

MapServer + Mapbender + PostGIS



**operating system virtualization software
that bundles programs in packages / containers**

containers are isolated from each other

can communicate via defined channels

**run on the same kernel
of the host machine**



Docker engine

Background (daemon) process **dockerd**

Command line client **docker**

Docker compose

tool for defining and running

multi-container Docker applications

Command line utility **docker-compose**



git code



GitHub

docker images



dockerhub


How to use it

- Choose Server machine
- Install Docker engine
- Install docker-compose
- Start (download) existing docker image
- Configure and use web mapping software stack

Further Steps

- Build your own custom Docker image
- Push to Dockerhub
- Orchestrate multiple docker containers for an entire web mapping software stack with docker-compose
- Deploy with ease


Examples terragis/webgis

 docker hub

terrakis

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terragisltd/webgis ☆

By [terragisltd](#) • Updated 9 days ago

Web GIS containers

Container

↓ Pulls 41

Overview Tags

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TAG

[terra_mapstore](#)

Last pushed 9 days ago by [terragisltd](#)

DIGEST

[feed96e7d99b](#)

MapStore

OS/ARCH

linux/amd64

docker pull terragisltd/webgis:terra_mapst

COMPRESSED SIZE

304.47 MB

TAG

[terra_mb](#)

Last pushed a month ago by [terragisltd](#)

DIGEST

[00dcffc89d27](#)

MapBender

OS/ARCH

linux/amd64

docker pull terragisltd/webgis:terra_mb

COMPRESSED SIZE

206.84 MB

Carto (db) stack



: sverhoeven/cartodb

<https://hub.docker.com/r/sverhoeven/cartodb/>

```
docker run -d -p 80:80 -h 111.222.11.222 sverhoeven/cartodb
```

[http:// 111.222.11.222 /login](http://111.222.11.222/login)

dev

pass1234

Custom web mapping stack

docker-compose.yml

```
version: "3"
services:
  db:
    image: postgis/postgis
    environment:
      - POSTGRES_USER=postgres
      - POSTGRES_PASSWORD=
      - POSTGRES_DB=postgis
    ports:
      - "5435:5432"
    container_name: terra_postgis
    volumes:
      - /var/mapdata/mechernich/data:/var/lib/postgresql/data
  mapbender:
    image: terragisltd/webgis:terra_mb
    depends_on:
      - db
    ports:
      - "8001:80"
    container_name: mapbender
  mapserver:
    image: terragisltd/webgis:mapserv_cache
    ports:
      - "81:80"
    container_name: mapserver
    volumes:
      - /var/mapdata/mechernich:/map
```

to start:
docker-compose up -d

Custom web mapping stack

Mapbender – PostGIS – MapServer

Anmelden

<http://terrax.terraxis.net:8001/mapbender>

v. 3.2.2

Anwendungen

Filtern



Mapbender mobile mapbender_mobile
Mapbender mobile Application



Mapbender Demo Map OL2 mapbender_user_ol2
Fullscreen style, Simple map showing WMS use.



Mapbender Demo Map mapbender_user
Fullscreen style, Simple map showing WMS use.

Custom web mapping stack

Mapbender – PostGIS – MapServer

The screenshot displays the Mapbender web mapping interface. At the top, a navigation bar includes icons and labels for 'Ebenenbaum', 'Information', 'Druck', 'Bildexport', 'Legende', 'WMS laden', 'Linie', 'Fläche', and 'Mechernich'. On the left, a sidebar titled 'Ebenenbaum' lists several layers: 'cad_mech' (checked), 'alkis_mechernich' (checked), 'Terragis Mechernich Mapcache Ser...' (checked), 'DGK5 gru Mechernich' (unchecked), 'Bebauungsplan Mechernich' (unchecked), 'FNP Mechernich' (unchecked), 'Flurstuecke und Gebaeude' (unchecked), 'Luftbilder Mechernich 2017' (unchecked), 'tiles_mech' (checked), 'Bebauungsplan' (unchecked), 'DGK5_gru' (unchecked), and 'FNP' (unchecked). Below the list are buttons for 'Suchen', 'Skizzen', 'Information', 'Impressum', and 'Digitizer'. The main map area shows a detailed street map with buildings and green spaces. On the right, a vertical toolbar contains icons for map navigation and interaction. At the bottom, a status bar shows the coordinate system 'ETRS89 / UTM zone 32N', a scale of '8842', and the text '© OpenStreetMap contributors powered by TerraGIS'.

terrax.terraxis.net:8001/mapbender