

# Modular WebGIS Framework: Administration

## 1) User & Groups

User and groups are used from standard Django, no adjustments have been made.

### Users

Only “staff” or “superuser” users can log in into admin. All other users are only allowed in the frontend to log in. They cannot use the admin. User permission on the edit user page are only related to the admin panel. All permissions for mapviewer and layers will be set at the individual admin pages.

When adding a new user from the admin, first only username and password has to be set. First and last name as well as a related email address can only be added when editing the user.

Please note: Without an email address the user will not be able to use the reset password function in the frontend!

Home » Authentication and Authorization » Users » Add user

First, enter a username and password. Then, you'll be able to edit more user options.

Username: *	<input type="text"/>	Required. 30 characters or fewer. Letters, digits and @/./+/-/_ only.
Password: *	<input type="password"/>	
Password confirmation: *	<input type="password"/>	Enter the same password as above, for verification.

When editing the user the password can be changed through the link “this form” in the help text of the field.

Username: *	<input type="text" value="jonatest"/> Required. 30 characters or fewer. Letters, digits and @/./+/-/_ only.
Password:	<b>algorithm: pbkdf2_sha256 iterations: 15000 salt: SJsztp***** hash: FD5k7J*****</b> Raw passwords are not stored, so there is no way to see this user's password, but you can change the password using <a href="#">this form</a> .
<b>Personal info</b>	
First name:	<input type="text"/>
Last name:	<input type="text"/>
Email address:	<input type="text"/>

Groups can be assigned to a user:

Groups: The groups this user belongs to. A user will get all permissions granted to each of his/her group. Hold down "Control", or "Command" on a Mac, to select more than one.

<b>Available groups</b> ⓘ	<b>Chosen groups</b> ⓘ
<input type="text" value="Filter"/> testgroup	→
<a href="#">Choose all</a>	<a href="#">Remove all</a>

## Groups

Groups can be used to group permission on admin and frontend level. To add a new group for frontend permissions, only the name of the group is needed:

The screenshot shows a form for creating a new group named "testgroup". In the "Permissions" section, there is a list of available permissions under "Available permissions" and a list of chosen permissions under "Chosen permissions". A "Choose all" button is located at the bottom left of the available permissions list.

Name: *	testgroup
Permissions:	Hold down "Control", or "Command" on a Mac, to select more than one. <b>Available permissions</b> ⓘ Filter account   email address   Can add email address account   email address   Can change email address account   email address   Can delete email address account   email confirmation   Can add email confirmation <a href="#">Choose all</a>
	<b>Chosen permissions</b> ⓘ Remove all

## 2) Mapviewer

### Mapviewer

The Mapviewer object relates to the WebGIS frontend that is based on an HTML template file.

#### *General settings*

- **Title:** Name of the WebGIS shown in the frontend
- **Template file:** Main HTML file to generate the frontend output
- **Allow user registration:** Registration will be disabled when not checked
- **Server for search field:** Select the server (see 4) CSW) that will be used for search

The screenshot shows the "General settings" section of the Mapviewer configuration. It includes fields for "Title" (Assam), "Template file" (viewer.html), "Allow user registration" (checked), and "Server for search field" (SIB-ESS-C MODIS Time-series).

Title: *	Assam
Template file:	viewer.html
Allow user registration	<input checked="" type="checkbox"/>
Server for search field:	SIB-ESS-C MODIS Time-series <a href="#">+</a>

#### *Map settings*

- **Center coordinate:** Latitude, Longitude and projection of these coordinates used as a default center coordinate when loading the frontend
- **Map projection:** Projection of the map (EPSG projection name, e.g., EPSG:3857)
- **Map resolutions:** Define fix resolutions for zoom in the map. Resolutions are separated by a blank space character.

Center latitude: *	<input type="text" value="90,0"/>	Center coordinate (latitude)
Center longitude: *	<input type="text" value="25,0"/>	Center coordinate (longitude)
Center projection: *	<input type="text" value="EPSG:4326"/>	EPSG projection name
Map projection: *	<input type="text" value="EPSG:3857"/>	EPSG projection name
Map zoom resolutions:	<input type="text" value=""/>	
	Map resolutions (separated by space/blank character)	

### Permissions

- **Access:** Activate access permissions by selecting the checkbox. After activating only superuser, users that are selected in the “Access users” box and users that are members of a group that is selected in the “Access groups” box can view the mapviewer.
- **Download:** Activate the download restriction. If restricted and user has no permission to download data (related to “Download users” and “Download groups”), the download button will be hidden in the frontend. If not restricted or user has permission to download data, the download links will be shown if layer settings allow this.
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Access permission	<input type="checkbox"/> Restrict viewer access
Access users:	<input type="checkbox"/> admin <input type="checkbox"/> jonas123 <input type="checkbox"/> jonastest <input type="checkbox"/> test <small>Hold down "Control", or "Command" on a Mac, to select more than one.</small>
Access groups:	<input type="checkbox"/> testgroup <small>Hold down "Control", or "Command" on a Mac, to select more than one.</small>
Download permission	<input checked="" type="checkbox"/>
Download users:	<input type="checkbox"/> admin <input type="checkbox"/> jonas123 <input type="checkbox"/> jonastest <input type="checkbox"/> test <small>Hold down "Control", or "Command" on a Mac, to select more than one.</small>
Download groups:	<input type="checkbox"/> testgroup <small>Hold down "Control", or "Command" on a Mac, to select more than one.</small>

### Time slider

- **Time slider:** Activate the time slider when it shall be shown in the frontend.
- **Dates & step interval:** Select start and ending dates as well as a step interval to automatically generate the available dates of the slider.

- **Individual dates:** If you do not have regularly dates, then you can specify the dates for the slider individually, separated by a blank space character.

Time slider	
Starting date:	Date: 2000-01-01 <a href="#">Today</a> <a href="#">Calendar</a> Time: 15:18:15 <a href="#">Now</a> <a href="#">Clock</a>
Ending date:	Date: 2015-02-01 <a href="#">Today</a> <a href="#">Calendar</a> Time: 15:18:16 <a href="#">Now</a> <a href="#">Clock</a>
Step interval:	month
Individual dates:	<input type="text"/>

### Baselayers & Layergroups

To specify baselayers and layergroups for the data catalogue both can be selected after creation in the other admin areas. You can also specify the order of baselayers and layergroups. The first baselayer will be shown as default layer when loading the frontend.

<b>Baselayers</b>			
Baselayer *	Order *	Delete?	
MapQuest Satellite	<a href="#">↑</a> <a href="#">↓</a>	<input type="checkbox"/>	<a href="#">+</a>
MapQuest Streets	<a href="#">↑</a> <a href="#">↓</a>	<input type="checkbox"/>	<a href="#">+</a>
-----	<a href="#">↑</a> <a href="#">↓</a>		<a href="#">+</a>
<a href="#">Add another Base Layer Inline</a>			
<b>Layergroups</b>			
Layergroup *	Order *	Delete?	
Boundaries	<a href="#">↑</a> <a href="#">↓</a>	<input type="checkbox"/>	<a href="#">+</a>
Infrastructure	<a href="#">↑</a> <a href="#">↓</a>	<input type="checkbox"/>	<a href="#">+</a>
River dynamics	<a href="#">↑</a> <a href="#">↓</a>	<input type="checkbox"/>	<a href="#">+</a>
Land use	<a href="#">↑</a> <a href="#">↓</a>	<input type="checkbox"/>	<a href="#">+</a>
-----	<a href="#">↑</a> <a href="#">↓</a>		<a href="#">+</a>
<a href="#">Add another Layergroup Inline</a>			

### Baselayers

Even though OpenLayers 3 does not anymore has the concept of a baselayer, the baselayer is defined by the first layer added to the map that cannot be removed, just replaced by another layer defined as baselayer.

Different **types** can be used: BingMaps, MapQuest, WMS, WMTS, XYZ.

Title: *	NASA Test WMTS WebMerc
Type: *	WMTS

Any layer type has different settings: **URL** and **Layername** are the most important settings. Optionally for WMS and WMTS an imageformat can be specified, if supported by the server!

URL:	http://map1a.vis.earthdata.nasa.gov/w
Layername:	MODIS_Terra_Cloud_Top_Pressure_D
Imageformat:	image/png

For a WMTS baselayer further settings are needed:

- **Matrix set:** Name of the matrix set used for displaying
- **Resolutions:** Resolutions of the WMTS layer, separated by a blank space
- **Projection:** Number of the EPSG code as defined in the WMTS capabilities
- **Tileszie:** Tile size (integer) as defined in the WMTS capabilities

WMTS matrix set:	GoogleMapsCompatible_Level6
WMTS resolutions:	156543.03392804097 78271.51696402048 39135.758482010235 19567.87924100512 9783.93962050256 4891.96981025128 2445.98490512564
	separated by space/blank character
WMTS projection:	3857
WMTS tileszie:	256

## 3) Layers

### Layergroups

Layergroups are containers for layers displayed in the data catalogue. A **list of layers** can be added. Furthermore the **title of the layer** used in this layergroup can be overwritten. The **order** column specifies the order as shown in the frontend.

Title: *	Land use		
<b>Layers</b>			
Title	Layer *	Order *	Delete?
2010: Land use	Land use Assam and Meghalaya, 2		<input type="checkbox"/>
WMS-Time-Test	WMS-Time-Test		<input type="checkbox"/>
XYZ Test	NASA Test XYZ		<input type="checkbox"/>
	-----		<input type="checkbox"/>
<a href="#">Add another Layer Inline</a>			

## Layers

Layers are displayed in the data catalogue and grouped into layergroups that are referenced in the mapviewer. A layer consists of metadata information, settings for visualization (OGC services), and permission settings. The admin page is organized in tabs for General, Data, Dataset, Location, Download, and Permissions.

### General

- **Title:** Mandatory field for a name of the layer used in the data catalogue
- **Abstract:** Mandatory field for a short description used in the data catalogue (popup when layer hover effect).

Title: *	WMS-Time-Test
Abstract: *	abstract

Further fields are only used in the metadata description of the layer:

TopicCategory: *	environment
Metadata contact:	Jonas Eberle
Metadata language:	English
Metadata character set:	utf8
Metadata date:	2015-02-02 <a href="#">Today</a>

### Data

- **OGC service URL:** URL service endpoint of the layer
- **Layer name:** Name of the layer of the service endpoint
- **OGC service type:** Select the type of the service (WMS, WMTS, XYZ, WFS, Tiled-WFS, SOS)

- **Image format:** Specify an image format, only applicable for WMS and WMTS (e.g., image/png)
- **WMS/WMTS Time:** Checkbox for activating the change of the time of the layer when using the time slider of the mapviewer
- **Legend:** Please either upload a legend graphic or specify an URL to an image graphic that will be displayed as legend in the current layers tab.
- **WMTS settings:** For WMTS layers, please specify matrix set, resolutions and projection used for this layer.

OGC service URL: *	<input type="text" value="http://artemis.geogr.uni-jena.de/sibess"/>
Layer name: *	<input type="text" value="mod13c2_evi"/>
OGC service type: *	<input type="text" value="WMS"/>
Image format:	<input type="text"/> For WMS/WMTS, e.g., image/png, image/jpeg
WMS/WMTS Time	<input checked="" type="checkbox"/> Time enabled?
Legend graphic file:	<input type="button" value="Datei auswählen"/> Keine ausgewählt
Legend graphic URL:	<input type="text"/>
WMTS matrix set:	<input type="text"/>
WMTS resolutions:	<input type="text"/> Separated by space/blank character

## Dataset

These fields are only for metadata information. Dataset contact is mandatory to show contact details to the users.

Dataset contact: *	<input type="text" value="Christoph Boehm"/>
Dataset creation date:	<input type="text" value="2015-02-02"/> <a href="#">Today</a>
Language:	<input type="text" value="English"/>
Characterset:	<input type="text" value="utf8"/>
Format:	<input type="text" value="geotiff"/>
Spatial resolution:	<input type="text" value="250,0"/> Just for metadata
Type of dataset:	<input type="text" value="raster"/> e.g., raster or vector

### Location

These fields are only for metadata information. Please specify **the bounding box coordinates** of the layer and the **projection code** of these coordinates. Furthermore a **location description** can be given.

BBOX west coordinate: *	12,314
BBOX east coordinate: *	51,31
BBOX north coordinate: *	56,12
BBOX south coordinate: *	13,23
EPSG code:	4326 Just the projection code/number
Location description:	Location

### Download

- **Downloadable:** Define whether the layer can be downloaded or not
- **URL & file:** Please either upload a file or specify a URL where the layer can be downloaded. No automated download will be provided!

Downloadable	<input type="checkbox"/> Define whether layer can be downloaded
Download URL:	<input type="text"/> URL for layer download
Download file:	<input type="button" value="Datei auswählen"/> Keine ausgewählt <input type="file"/> Upload file for layer download

### Permissions

- **Access permission:** Check if you want to activate the access permission for this layer
- **Access users:** If permission is checked, only these users can see this layer in the data catalogue
- **Access groups:** If permission is checked, only members of these groups can see this layer in the data catalogue

Access permission	<input type="checkbox"/> Activate access permission for layer
Access users:	<input type="text" value="admin"/> <input type="text" value="jonas123"/> <input type="text" value="jonastest"/> <input type="text" value="test"/> <div style="text-align: right;">+</div> <p>Hold down "Control", or "Command" on a Mac, to select more than one.</p>
Access groups:	<input type="text" value="testgroup"/> <div style="text-align: right;">+</div> <p>Hold down "Control", or "Command" on a Mac, to select more than one.</p>

- **Download permission:** Check if you want to activate the download permission for this layer.
- **Download users:** If permission is checked, only these users can download this layer
- **Download groups:** If permission is checked, only members of these groups can download this layer

Download permission	<input type="checkbox"/> Activate download permission for layer
Download users:	<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">         admin          jonas123          jonastest          test       </div> <div style="text-align: right;">+</div> <p>Hold down "Control", or "Command" on a Mac, to select more than one.</p>
Download groups:	<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">         testgroup       </div> <div style="text-align: right;">+</div> <p>Hold down "Control", or "Command" on a Mac, to select more than one.</p>

## Contacts

The contact information is only be used as metadata information. At least **first and last name** are mandatory fields. The contact is being related by a layer defined in Layers.

First name: *	<input type="text" value="Jonas"/>
Last name: *	<input type="text" value="Eberle"/>
Position:	<input type="text"/>
Address:	<input type="text"/>
Postcode:	<input type="text"/>
City:	<input type="text"/>
Country:	<input type="text"/>
State:	<input type="text"/>
Email:	<input type="text"/>
Organisation:	<input type="text"/>
Telephone:	<input type="text"/>
Fax:	<input type="text"/>
Mobile:	<input type="text"/>
Website:	<input type="text"/>

## 4) Search

### CSW

Add server URLs used in the mapviewer to search within. As **types** at the moment only OGC CSW servers are implemented. For the future other server types (e.g., OpenSearch) could be implemented as well. The **URL** is the URL to the server implementation.

Title: *	SIB-ESS-C MODIS Time-series
Type: *	CSW
URL: *	<a href="http://artemis.geogr.uni-jena.de/pycsw">http://artemis.geogr.uni-jena.de/pycsw</a>