# TABLE OF CONTENTS

AN INTRODUCTION TO THE SYSTEM ..................................................................... 4

INTERFACE AND FUNCTIONALITY OF THE GEOPORTAL ................................. 5

Login ..................................................................................................................... 9
  User registration ............................................................................................... 11
  Edit user data ................................................................................................. 13
  Change password ............................................................................................ 16
  Forgot password ............................................................................................. 17

Map ...................................................................................................................... 18
  Overview map .................................................................................................. 20

Map navigation toolbar ..................................................................................... 21

Layer tree ........................................................................................................... 24
  Layer tree options .......................................................................................... 29
  Themes ............................................................................................................ 31

Toolbar ............................................................................................................... 32
  Select .............................................................................................................. 34
    Simple select ............................................................................................... 36
    Spatial select ............................................................................................... 37
  Feature attributes ......................................................................................... 39
  Print property map ....................................................................................... 40
  Edit feature .................................................................................................... 41

Identify ................................................................................................................ 43

Zoom to ............................................................................................................. 45

Measure ............................................................................................................ 46

Draw ................................................................................................................. 47

Print ................................................................................................................... 53

Permalink .......................................................................................................... 56

Add layer .......................................................................................................... 58
  Add new local feature class ........................................................................... 59
    Add new attribute ....................................................................................... 61
  Load WMS/WFS/WMTS layer ....................................................................... 62

Search ............................................................................................................... 64
  Advanced search ............................................................................................ 66
    Search type .................................................................................................. 68
    Search options ............................................................................................. 70
    Search scope ............................................................................................... 71

Adding your spatial data files on the map using Drag and Drop method .......... 72

3D map view ..................................................................................................... 74

Payment ............................................................................................................ 76
  Payment Service Provider ............................................................................. 78

INTERFACE AND FUNCTIONALITIES FOR MOBILE VERSION ............................. 80

Login ................................................................................................................... 81
  User registration ............................................................................................. 83
Reset password .............................................................................................85
Map .....................................................................................................................86
  Overview map ............................................................................................87
Map navigation toolbar ................................................................................88
Layer tree .........................................................................................................90
  Layer tree options ....................................................................................94
Themes ..........................................................................................................95
Toolbar .............................................................................................................96
  Identify .......................................................................................................98
Permalink .......................................................................................................100
Search .............................................................................................................102
  Advanced search .....................................................................................104
    Search type ..........................................................................................106
    Search options .....................................................................................108
    Search scope .......................................................................................109
AN INTRODUCTION TO THE SYSTEM

The ASIG Geoportal uses advanced features of the HTML5 technology. The recommended browser to use the Geoportal is the latest version of Google Chrome. To work correctly, the Web browser must have cookies enabled.
INTERFACE AND FUNCTIONALITY OF THE GEOPORTAL

The Geoportal interface consists of a few main regions, which include header, layer tree, toolbar, map, tool options, map navigation toolbar and footer.

1. **Header**

   Header holds the ASIG logo and the links to the different sections of Geoportal such as themes, data, services, news, NSDI, help and login button.

2. **Map**

   Map is the basis of the ASIG Geoportal. It interactively shows and allows interaction with the spatial data. Functionalities of the map are described in detail in the Map chapter.
Map navigation toolbar

Map navigation toolbar contains tools used for map navigation. Functionalities of the map navigation toolbar are described in detail in Map navigation toolbar chapter.
Layer tree

Layer tree contains the layer list with the layer and theming options. It is located on the left side of the Geoportal interface. To open the layer tree, click on the LAYERS icon or text. Functionalities of the layer tree are described in detail in Layer tree chapter.

Toolbar

Toolbar contains tools for data querying and manipulation. Change the language of the user interface and the data by selecting the desired language on the right hand side of the toolbar. Functionalities of the toolbar are described in detail in Toolbar chapter.

Tool options

- Draw point
- Draw point at coordinates
- Draw line
- Draw polygon
- Draw annotation
- CLEAN DRAWING
Tool options panel holds tool options for selected tool or group of tools and interactive tool help. It is also a place where the spatial data search and identification results will be displayed.

Footer

Geoportal footer holds shortcut for Search tool, information about ASIG, contact form and the terms of use.
Login

Click the button on the right side of the header to sign in to the Geoportal.

1. **Username**
   - Username:
   - Enter the username.

2. **Password**
   - Password:
   - Enter the password.

3. **Login**
   - Click this button to finish the login process after filling the username and the password fields.

4. **Clear**

5. **Create an account**
   - Create an account | Forgot password

6. **Forgot password**
Clear

CLEAR

Click this button to clear the username and the password fields.

Create an account

Create an account |
Click here to create new user account. Read more about this feature in the User registration chapter.

Forgot password

Forgot password
Click here if you forgot your account password. Read more about this feature in the Reset password chapter.
User registration

To register the user account you have to fill in the personal and employment information and send the registration request to the system administrator. Enter the required data, confirm that you are not a robot (reCAPTCHA) and click the Register button. You will receive an e-mail saying that your account request has been sent to the system administrator. You will be notified by e-mail when the system administrator activates your account.

1. User information
   Enter your personal and employment information in the fields provided.

2. reCAPTCHA check
   Confirm you are not a robot.

3. Register
   Click the Register button to submit your registration request.
reCAPTCHA check

reCAPTCHA is a free service that protects the site from spam and abuse. Click the checkbox to prove that you are not a robot.

Register

Click on this button to finish account registration procedure.
Edit user data

User can edit own data such as name, surname, address, telephone number etc. To edit own user data, user clicks on his user name on the application header: ivan

On this form, user can change its own password and ask for new password if he forgot existing password.
User cannot change his Username and E-mail.
### Changeable information

#### Edit user data

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username</td>
<td>ivan</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:ivan.balent@igea.hr">ivan.balent@igea.hr</a></td>
</tr>
<tr>
<td>Name</td>
<td>Ivan</td>
</tr>
<tr>
<td>Surname</td>
<td>Horvat</td>
</tr>
<tr>
<td>Address</td>
<td>Ulica 5</td>
</tr>
<tr>
<td>City</td>
<td>Grad</td>
</tr>
<tr>
<td>Postal office</td>
<td>10000</td>
</tr>
<tr>
<td>Country</td>
<td>Albania</td>
</tr>
<tr>
<td>Telephone number</td>
<td>0005655888</td>
</tr>
<tr>
<td>Mobile number</td>
<td>099667892</td>
</tr>
<tr>
<td>Public institution</td>
<td></td>
</tr>
<tr>
<td>Job position</td>
<td>GIS</td>
</tr>
<tr>
<td>Access Key</td>
<td>7a873706-af66-4dea-a4c2-5f23c82a1a44</td>
</tr>
</tbody>
</table>
Changeable information

Name: Ivan
Surname: Horvat
Address: Ulica 5
City: Grad
Postal office: 10000
Country: Albania
Telephone number: 000666888
Mobile number: 099667892

User can change any information except Username and E-mail address.

Update

Click this button to save changes made on the user data.

Change password

Click on this field to change password.

Forgot password

Click on this field to reset password.
Change password

User can change password. The only rule is that password have to have at least 6 characters. This is handful feature especially after the password reset because new password that is received by email is long and complicated.

To change password, write old password, new password, repeat new password and click on the Confirm password button.

1. Old password
   - Old password
   - Write here current password.

2. New password
   - New password
   - Write desired new password in this field.

3. Repeat password
   - Repeat password
   - Repeat new password here.

4. Confirm password
   - Confirm password
   - Click on this button to confirm new password.
Forgot password

Click the **Forgot password** link on the **Login form** to reset your account password. Enter the email associated with your account and click the Reset Password button to reset password. You will receive an email with the new password.

**Email**

Enter the email associated with your account.

**Reset password button**

Click this button to finish the reset password procedure.
Map

Map is the basis of the ASIG Geoportal. It interactively shows and allows interaction with the spatial data.

1. **Basemap widget**

   Choose from various selection of basemaps by clicking the basemap widget.

2. **Projection**

   Select the coordinate system for the display of mouse cursor coordinates.

3. **Mouse cursor position**

   Mouse cursor coordinates in selected projection.

4. **Scale line**

   Scale line shows relation between the distance on the map and the distance in the real world in metric system.
Layer legend shows layer symbology so that you can visually differentiate the objects from the different layers on the map. Layer legend shows symbology only for currently visible layers.
Overview map

Overview map aids the map navigation by displaying main map viewport extent on the smaller scale. Overview map is synchronized with main map. Panning and zooming the main map will move the viewport extent indicator on the overview map and vice versa.

To close the overview map, click everywhere on the overview map area or overview map icon in the Map navigation toolbar.
Map navigation toolbar

Map navigation toolbar contains tools used for map navigation.

1. Overview map
2. Fullscreen
3. Zoom to extent
4. Zoom to rectangle
5. Previous view
6. Next view
7. Switch to 3D view
8. Graticule
9. Zoom in
10. Zoom level
11. Zoom out
Overview map

Overview map aids the map navigation by displaying main map viewport extent on the smaller scale. Read more about this feature in the Overview map chapter.

Fullscreen

Switches the Geoportal to the fullscreen mode. Header and footer are hidden in the fullscreen mode to maximize the window space available to the map.

Zoom to extent

Click to zoom to the maximum extent of the map.

Zoom to rectangle

Enables zooming to extent by drawing a rectangle on the map. Click and hold the left mouse button and drag to draw a rectangle. Releasing the left mouse button will zoom to the drawn rectangle.

Previous view

Click to restore the previous map view. The previous button will become active when there are available states to restore and will become inactive when there are no states to restore.

Next view

Click to restore the next map view. The next button will become active when there are available states to restore and will become inactive when there are no states to restore.

Switch to 3D view

Enables the 3D map view. Read more about this feature in the 3D map view chapter.
8. **Graticule**

   a network of lines representing meridians and parallels, on which a map or plan can be represented.

9. **Zoom in**

   Click to zoom in the map.

10. **Zoom level**

    Each dot represents a map zoom level, orange dot being the current zoom level. Click the dots to change map zoom level.

11. **Zoom out**

    Click to zoom out the map.
Layer tree

The Layer tree allows you to view the layers published on the Geoportal. It provides many functionalities: making a layer or group of layers visible or invisible, layer transparency adjustment, active layer selection, layer information and more.
1. **All layers tab**

All the layers available in the system are displayed under this tab.

2. **Themed tab**

All the layers for the currently selected theme are displayed under this tab. Read more about this feature in Layer tree options and Themes chapters.

3. **Active (visible) layers tab**

All the layers currently visible on the map are displayed under this tab.

4. **Layer tree options button**

This button opens the layer tree options menu. Read more about this feature in the Layer tree options chapter.

5. **Layer group**

This is an example of a collapsed layer group. A click on the + symbol next to the layer group name will expand it.

6. **Expand layer group button**

A layer group is expanded by clicking on this button. When expanded, all the layers within the group will be displayed.

7. **Inactive layer**

This is an example of an inactive layer. There is a greyed-out checkmark in front of the layer and the layer contextual menu is not visible. This layer and its features and not currently visible on the map.

8. **Opacity slider**

Layer opacity (transparency), 0% - 100%.
Layer's contextual menu

- SET AS ACTIVE
- LAYER INFORMATION
- ZOOM TO LAYER

The layer's contextual menu contains options such as opacity, active layer selection, layer info and more.

**Note**: Contextual menus may differ for certain layer types but all of the possible options are mentioned in this chapter.

Layer activation button

- SET AS ACTIVE

Certain tools (drawing tools for example) will require a layer to be active before they can be used. A layer can be set as active by clicking this button. If a layer is active, the button will have an orange checkmark. Only one layer can be active at a time. If a layer is activated, a previously active layer (if any) will be deactivated automatically.

Layer information button

- LAYER INFORMATION

When this button is clicked, a pop-up with the layer information will be displayed enabling you to see various information such as the layer legend, metadata and services.

**Layer information**

- LEGEND
- SERVICES

https://geoportal.asig.gov.al/service/wms

Zoom to layer button

- ZOOM TO LAYER
When clicked, the map will zoom to the layer’s extent, making the entire layer visible on the map.

**Layer visibility checkmark**

A layer currently visible on the map will have an orange checkmark, while an invisible layer’s checkmark will be greyed-out.

**Open contextual menu button**

A click on this button opens the layer's contextual menu. The button is visible only if the layer is currently visible (the orange checkmark on the left side of the layer name).

**Close contextual menu button**

Clicking this button will close the layer's contextual menu.

**Export layer data button**

This option appears only for vector layers and enables you to export the layer's data.

**Edit local feature class button**

This option appears only for local feature classes and enables editing of a local feature class. Read more about this feature in the [Add new local feature class](#) chapter.

**Delete local feature class button**

This option appears only for local feature classes and enables you to delete the local feature class.
Layer tree options

The layer tree options menu enables you to choose a theme and change the look of the layer tree.

<table>
<thead>
<tr>
<th>ALL</th>
<th>THEMED</th>
<th>ACTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEME</td>
<td>DEFAULT THEME</td>
<td></td>
</tr>
<tr>
<td>CATALOGUE</td>
<td>ALL LAYERS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>THEME BASED</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACTIVE LAYERS</td>
<td></td>
</tr>
<tr>
<td>VIEW</td>
<td>CATEGORIZED</td>
<td></td>
</tr>
</tbody>
</table>

1. **Theme button**
   - DEFAULT THEME
   - Clicking this button will display a modal window with a selection of themes you can choose from. The button's name reflects the currently selected theme.

2. **Selected catalogue**
   - ALL LAYERS
   - THEME BASED
   - ACTIVE LAYERS
   - Displays the currently selected catalogue. These buttons have exactly the same functionality as the ALL/THEMED/ACTIVE layer tabs.

3. **Categorized view button**
   - CATEGORIZED
   - Clicking this button will enable or disable the categorized layer view in the layer tree. The categorized view (enabled by default) will display the layers in their
groups. When disabled, all the layers will be displayed in a single, flat list. An orange checkmark will be displayed when the categorized view is enabled.
Themes

Themes are groups of layers sharing a common theme, for example: Hydrography, Historical maps, Geology, Land use, etc. Although all of the theme layers are already present under the ALL tab in the layer tree, this functionality gives you the option to filter the layers by a chosen theme and display them under the THEMED tab in the layer tree.

The theme selection functionality is provided in the Layer tree options. Clicking the theme selection button will display a window as shown above and you can choose a theme by clicking on its thumbnail.
This chapter describes the usage of the tools available in Geoportal.

Select tools

Select tools are used for selecting and downloading the objects on the map. Read more about this feature in the Select chapter.

Identify

This tool gives you the ability to identify objects from all of the visible layers on the map. Read more about this feature in the Identify chapter.

Zoom to coordinates

Zooms the map to the provided coordinates. You can choose the Coordinate Reference System for coordinate entry.

Measurement tools

You can measure length or area by selecting appropriate tool in the Tool options panel. After activating this tool, click the left mouse button anywhere on the map to start drawing a measurement line/polygon. Each subsequent left click adds a new point to the line/polygon. Double-click to finish drawing the line/polygon. Measured values are shown on drawn measurement objects.
5 Drawing tools

With drawing tools, you can draw different types of the geometry objects on the map. Read more about this feature in the Draw chapter.

6 Print map

Printing enables you to save a selected area of the map in the form of a PDF or image (PNG or JPEG) file. Read more about this feature in the Print chapter.

7 Permalink

With permalink tool, you can create, save and share URL or QR code, which contains information about the current map view. Information about map view contains map position, zoom level, layer list with information about their visibility and transparency.

8 Add layer

Tools for adding different types of layers to the layer tree. Read more about this feature in the Add layer chapter.

9 Search

Search tool allows you to search objects from layers in the database by typing or selecting the desired term and by defining other parameters such as search scope. Read more about this feature in the Search chapter.
Select tool is the set of tools for selecting, downloading, deleting and editing features. To select any of the feature from certain layer, you have to activate layer in the layer tree (for layer activation, see chapter Layer tree). If no layer is activated, the Temporary layer will be used for selection.

Note: Some select tools are available only for the registered users.

**Simple select**

Use this tool to select a feature by simply clicking on it by mouse. To select more objects on the map, press and hold SHIFT key on the keyboard and click on other objects. To deselect object from the selection, press and hold SHIFT on the keyboard and click on the selected object.
2. **Spatial select**

   ![Spatial select](image)

   This tool enables you to select an object on the map by drawing the polygon on the desired area of the map. Read more about this feature in the **Spatial select** chapter.

3. **Feature attributes**

   ![Feature attributes](image)

   You can view feature attributes by clicking on the object on the map. Read more about this feature in the **Feature attributes** chapter.

4. **Print property map**

   ![Print property map](image)

   You can download selected features in the Shapefile or GML format. Read more about this feature in the **Features download** chapter. This tool is for registered users only.

5. **Edit feature**

   ![Edit feature](image)

   With this tool, you can change feature geometry. Read more about this feature in the **Edit feature** chapter.

6. **Zoom to selected**

   ![Zoom to selected](image)

   After selecting the features, you can zoom the map to selected features by clicking with the mouse on this field.

7. **Delete selected**

   ![Delete selected](image)

   To delete selected features, click on this field.
Simple select

By default, you can select objects from temporary layer. To select objects from some other layer, activate the desired layer in the Layer tree.
Spatial select

This tool enables you to select an object on the map by drawing the polygon on the desired area of the map. You can select various shapes of the polygon for selecting and can define the type of selection - intersection or within.

Selection type

You can choose the shape of the polygon for selecting the features.
Intersection type

You can define the intersection type. If Intersection option is selected, all objects that are touched by the polygon for selecting will be included in the selection. If Within option is selected, only features that are completely within polygon for selecting will be included in the selection.
Feature attributes

You can view desired feature attributes with this tool. To view feature attributes, first you activate the layer from which he wants to view object attributes and then click on the desired object to view attributes.

**Note:** For layer activation, see chapter Layer tree.

After clicking on the desired object, window with feature attributes pops out. If no results are found, appropriate message will be shown.
Print property map

Print property map option gives the ability to print selected single parcel in the pdf format.

Select one parcel from the Parcels layer to print and click on the print to print property map.
Edit feature

You can use this tool to edit vector features from the active layer. After the tool is activated you can select and edit any feature on the active layer. If no layer is activated, the Temporary layer will be used for selection. The feature can be edited either by drag and drop feature vertices or by editing coordinates in coordinates edit form.

**Note:** For layer activation, see chapter Layer tree.
Edit mode

When editing a feature you can choose the action to be done when you click on the feature vertex. If edit point is selected, after you click on the vertex, vertex data will be displayed in Coordinates edit form. If delete point is selected, after you click on the vertex, the vertex will be deleted from the feature.

Projection select

With this option, you can select coordinates input format.

Coordinates edit form

To edit coordinate, change X and/or Y value in input form and then press Move button.
Identify

This tool gives you the ability to identify objects from all of the visible layers on the map. There are two ways to identify objects:
1. by point where you click on the desired place on the map.
2. by rectangle where you draw the rectangle on the map and identifies all of the objects that the rectangle touches.

Identify by point

Select this feature to identify objects on the map by point.

Identify by rectangle

Select this feature to identify objects on the map by rectangle.

Results

- RESULTS
  - First Order (State) 1
  - Second Order (Region) 1

After identification is done, results will be shown in the Result area. Results are shown as a list of visible layers with a number of found features (e.g. in the example above we can see that identification is done on layers 'First Order (State)' and 'Second Order (Region)', and each layer has 1 feature). To see more details about
layer features you can click on the layer name. After clicking on the layer name, a list of identified features within a layer will be expanded and you can select the desired feature to view his attributes. Selected feature is highlighted red on the map.
Zoom to

This tool gives you the ability to zoom to coordinates or to show the coordinates of a specific selected point.

1. **Zoom to coordinates**
   - This tool is used to zoom to a specific point by defining the projection and proper coordinates.

2. **Show coordinates**
   - By clicking on the map, you can get the coordinates of the point.
Measure

This tool is used to measure the length or the area by pressing on the map to start the measurement and move the mouse in the direction of measurements. To stop the measurement, double click the left mouse button on the location on which you intent to stop.

Measure length
This tool is used to measure the length between the selected points.

Measure area
This tool is used to measure the selected area.

Clean measures
By selecting this tool you can clean all the measurements.
Draw

With drawing tools, you can draw different types of the geometry objects on the map. Before drawing, you must select active layer where a new feature will be added. If no layer is activated, the Temporary layer will be used.

**Note:** For layer activation, see chapter [Layer tree](#).

---

**Draw point**

1. Draw point

Tool for drawing points on the map. To draw point, activate the tool, define point radius, line size, fill and line color, fill and line opacity and then use the left mouse click on the map to draw new feature.
Tool for drawing point at coordinates on the map. To draw point at the coordinates, first select projection, write coordinates in input box and then click on the Draw button.
Tool for drawing the lines on the map. To draw line first define line size, color and opacity. After line options are selected, use left mouse click to draw line vertices on the map. To finish drawing use double mouse click.
Drawn lines can be deleted by clicking on the Clean drawing field.

**Draw polygon**

Tool for drawing the polygons on the map. First, you select the desired polygon shape (polygon, circle, square or rectangle) and then define the line size, opacity and color, fill opacity and color. After polygon options are selected, use the left mouse click to draw the polygon vertices on the map. To finish the drawing, use the double mouse click.
**Draw annotation**

Tool for drawing annotations on the map. To draw annotation, write annotation text, define font size, define font of the annotation and color. Click on the desired place on the map to place annotation.
Clean drawing

Use this tool to delete all features from active layer. If no layer is activated, all features from the Temporary layer will be removed.
Print

Printing enables you to save a selected area of the map in the form of a PDF or image (PNG or JPEG) file. When the print tool is activated, a blue rectangle is overlaid on the map. This rectangle represents the area that will be printed. You can select the printable area by moving and scaling the rectangle. The rectangle is moved by clicking within the rectangle, holding the left mouse button and then moving the mouse in the desired direction. Scaling is done by clicking one of the eight control points (the blue circles) and moving them while holding the left mouse button.

The print tool also has various settings you can choose from.
Document title

The title will appear in the output file and will be used as the file name for download.

Scale

Map scale selection. You can choose the desired scale from this combo box. Choosing a scale will zoom the map to the chosen scale. In addition, the scale combo will be automatically updated if the map is zoomed by any other means.

Orientation

Orientation:  
- Portrait
- Landscape

Format

Format:  
- PDF
- PNG
- JPEG

Paper size

Paper size:  
- A4
- A3
- A2

Print button

PRINT
Document orientation, also changes the orientation of the area selection rectangle.

**Format**

Format:  
- PDF
- PNG
- JPEG

Output format selection. You can choose between PDF and two image formats (PNG, JPEG).

**Paper size**

Paper size:  
- A4
- A3
- A2

Paper size selection. Standard paper size are offered. Selecting a larger paper size will produce an output file with a larger resolution.

**Print button**

**PRINT**

Starts the document generation with the chosen settings.
Permalink

This tool is used to generate the link with current map view. You can copy and share link or QR code with other users.

1. **URL**
   It will be displayed the generated link of the current map view.

2. **Copy link**
   By clicking this button the link will be copied in the clipboard.

3. **QR code**
   QR code will be generated automatically.
**General information**

Insert the e-mail address of the sender and receiver. Write the proper message and then click send.

**Send**

Click send after completing the steps above.
Add layer

This group of tools enables you to add layers that are not already present in the layer tree. You can add local feature classes or external WMS or WFS layers.

1. **Add local feature class**
   - **Add local feature class**
     Add a local feature class to the layer tree. Read more about local feature classes in the Add new local feature class chapter.

2. **Load WMS/WFS/WMTS layer**
   - **Load WMS layer**
   - **Load WFS layer**
   - **Load WMTS layer**
     Add an external WMS, WFS or WMTS layer to the layer tree. Read more about this topic in Load WMS/WFS/WMTS layer chapter.
Add new local feature class

A local feature class is a vector layer added by the user, which is stored locally in the browser. A local feature class will remain persisted between page reloads and browser restarts. It will, however, be deleted if the browser cache is cleared.

Local feature classes are added to the "Local feature class" group in the layer tree, under the ALL tab. There is no limit on the number of local feature classes that can be added. The layer tree contains options for editing or deleting existing local feature classes.

The dialog for adding a local feature class is a simplified version of the form for adding a feature class from the administration module. The same dialog is used when editing an existing local feature class.

1. **Name**
   **Name**
   Name of the feature class. All the characters should be lower case and no special characters should be used. The name cannot be edited in an existing local feature class.

2. **Label**
   **Label**
   A label to be used for display in the layer tree. There are no character restrictions and a label can be inputted for each language that is available in the system.
Description

An optional description.

Attributes

<table>
<thead>
<tr>
<th>Attribute order</th>
<th>Name</th>
<th>Label</th>
<th>Type</th>
<th>Modify</th>
<th>Remove</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fid</td>
<td>fid</td>
<td>bigint</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>geometry</td>
<td>geometry</td>
<td>geometry (geometry)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The list of the feature class' attributes. Each feature class has to have the required *fid* and *geometry* attributes, so these are added by default when a new class is created. Although these attributes can be modified, it is not advised to do so. The attribute can be modified or removed by clicking the related buttons.

Add new attribute button

Clicking the button will open a dialog for adding a new attribute.
Add new attribute

A new attribute is added to a local feature class using the dialog below. The same dialog is used when editing an existing attribute.

1. **Name**
   - **Name**
   - Attribute name. All the characters must be lower case and no special characters can be used.

2. **Label**
   - **Label**
   - The label for the attribute that will be used through the Geoportal. The label can be inputted for all available languages in the system.

3. **Type**
   - **Type**
   - The attribute type is selected from the drop down list. The available types are: integer, bigint, float, numeric, bool, string, date, timestamp, geometry and text. The choice of type is relevant when inputting data through the Feature attributes tool.

4. **Complete the changes**
   - **Complete the changes**
   - Saves a new attribute or saves the changes on an existing attribute.
The tool enables adding external WMS/WFS/WMTS layers to the map. The workflow for adding an external layer is as follows:

1. Input an external service URL
2. Click the "Connect" button
3. Wait for the list of layers to be fetched from the external service
4. Select one of the layers in the results and click the "Add layer to map" button.
Results

- RESULTS

External layers

Land Use
Functional Urban Areas 2012

List of layers from the external service. You can choose one of these layers to be added.

4

Zoom to added layer

Zoom to added layer: ✓

If checked, the tool will zoom to the layer that has been added. Enabled by default.

5

Add layer to map

ADD LAYER TO MAP

Adds one of the selected layers from the results.
Search tool allows you to search the objects from layers in the database by typing or selecting the desired term and by defining other parameters such as search scope.

1. Search text
   - Text to search for with minimum length of 3 characters. Search is executed automatically after you stop typing.

2. Search results
   - RESULTS
   - Geographical Names: 498
   - Zoning: 53
   - Road: 24485
   - Buildings: 581
   - Educational Services: 453
   - Transport: 795
   - Public Institutions: 64

3. Advanced search
   - OPTIONS +
   - SCOPE +

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Search results

Displays the search results. They are grouped by belonging feature class. When you click on one feature class, first 10 objects are displayed. If you scrolls down, new objects are loaded, if there are any. Clicking on an object will show its attributes, highlight it red and zoom to that object on map.

Advanced search

This block is used to define advanced search parameters, such as type or scope. Read more about this features in the Advanced search chapter.
Advanced search

Advanced search allows you to specify search parameters in detail. It is divided in three parts: type, options and scope.

Search type

Search type allows you to specify what attributes we want to search on. Read more about this feature in the Search type chapter.
Search options

**OPTIONS** -

- ANY TEXT
- EXACT MATCH
- **NEGATIVE**
- PHRASE

Search options allow you to specify how to perform search based on the text input. Read more about this feature in the Search options chapter.

Search scope

**SCOPE** -

- **ALL**
- SELECTED OBJECTS
- CURRENT EXTENT
- USER DEFINED SHAPE

Search scope allows you to specify area you want to search on. Only objects that intersect the defined spatial scope will be returned in search results. Read more about this feature in the Search scope chapter.
Search type

Search type allows you to specify on what attributes do you want to search on.

1. **Freetext search**
   - FREETEXT SEARCH
   - Search text will be searched in every attribute of every object.

2. **Targeted search**
   - TARGETED SEARCH
   - You can specify filters to limit search to only some attributes of the feature class. Clicking on this item opens a block for filters, described below.

3. **Selected filters**
   - This block shows a list of filters that are currently active. A filter can be removed by clicking on red circle in Remove tab.
New filter input

FEATURE CLASS

Educational Services

FEATURE CLASS ATTRIBUTE

Local Government Unit

OPERATOR

=

VALUE

You can insert a new filter. We have to specify feature class, attribute, operator (like =, > etc.) and value. Filter is added after clicking on button Add filter.
Search options

Search options allow us to specify how to perform search based on the text input.

Any text

1. **ANY TEXT**

   Object has to contain the search text in part of any of its attributes and in any order to be returned in the search results.

Exact match

2. **EXACT MATCH**

   At least one attribute value of an object has to fully match search text to be returned in the search results.

Negative

3. **NEGATIVE**

   None of the object attribute values can consist of search text to be returned in the search results.

Phrase

4. **PHRASE**

   Object has to contain search text in part of one of its attribute values to be returned in the search results. Order of search words must be preserved.
Search scope

Search scope allows us to specify the area we want to search on. Only objects that intersect that scope will be returned in search results.

**All**

Search is not limited by the spatial scope.

**Selected objects**

You can select objects on map (on active layer(s)), and bounding box of those objects will be the scope of the search. Tool for selecting objects is a part of this block.

**Current extent**

Current extent of the map (current view) will be the scope of the search.

**User defined shape**

You can define a geometry with given tools that will be the scope of the search.
Adding your spatial data files on the map using Drag and Drop method

You can create a new Temporary layer on the map by using one of these methods:

1. Creating a new local feature class (see chapter Add new local feature class)
2. Drag and dropping spatial files on the map (read below)

To add a new layer to the map by Drag and Drop, just select a spatial file from your local disk and drag and drop that file to the map. If the spatial file contains multiple files (e.g. Shapefiles requires .shp, .dbf and .shx) all files must be dropped at same time.

In addition, with drag and drop, you can choose to import the data to one of the existing vector layers.

Supported formats for drag and drops are:

- shapefile
- gml
- kml
- geojson
- gpx.

![Drag and drop import tool](image)

1. **Projection**
   - **Projection**: Auto
     - Use these options to define the data projection. If option Auto is selected, Geoportal will try to identify the data projection from the spatial files.

2. **Import type**
   - **Import type**: Drag and Drop group
     - With this option, you can select where the new data will be saved.
There are three available import types:
1. Drag and Drop group - this option will create new layer in Drag and Drop group in the layer tree
2. New local feature class - this option will create new local feature class
3. Existing local feature class - this option will import data into an existing local feature class. After this option is selected, you must select one existing local feature class where the data will be saved.

Add

After defining the parameters above, click this button to run the import process. After the process is finished, the appropriate message will be shown.
3D map view

The 3D map view enables a 3-dimensional representation of the map, similar to viewing the map on a real globe. Most of the tools are disabled in this mode and there are some differences when it comes to map navigation. Panning works the same way as it does in the 2D mode meaning that you simply hold the left mouse button and move the mouse to pan the map in the desired direction. However, there are two additional sliders for the map's rotation and tilt.

1. **2D view**
   Switches the map back to the 2D view.

2. **Rotation slider**
   The default 0° rotation means that the map is oriented in the north-south direction. You can change the rotation by moving the slider left or right or holding the middle mouse button and moving the mouse left or right. The map can be rotated between -180° and 180°.
The 2D map view shows the map from a bird's perspective (90° tilt). You can change the map tilt by moving this slider up or down or holding the middle mouse button and moving the mouse up and down. The map can be tilted between 10° and 90°.
Payment

This is a tool to purchase dataset entries or regular feature classes from registered users. First of all, you have to login with your account credentials. After that, you have to activate the layer, which data you want to buy. Select the object for download and on the right side of the map viewer Features download tool will be activated. Next step is to select the needed format (shapefile or GML) and to write down the purpose of the downloaded data. Press Buy and automatically you will be redirected to payment gateway, where you need to login to the account provided by the payment provider. After you confirm the payment you will be redirected back to the ASIG Geoportal and will receive the file in your email.

1. **Set as active**

   - **Parcels**

   Activate the layer from which you will purchase data.

2. **Select Simple or Spatial**

   - **Spatial**

   Select the object by pressing Simple or Spatial
Features download

After selecting the object, Features download tool will be active.

Remove selection

You can remove selection, if it wasn't the needed object.

Format

Choose in which format you want to download the file.

Comments

You have to write the purpose for the downloading of the data (minimum 20 characters required)

Price

Price: 6828 LEK
The price will be defined automatically.

Buy

Press Buy if you want to proceed with the purchase and you will be redirected to the payment gateway, where you have to login to the account provided by the Payment Service Provider.

Cancel

Press Cancel if you don't want to proceed with the purchase.
Payment Service Provider

This is the payment gateway, where you need to create a new account or to login to an existing one.

**Information**

In this window will be shown the information for the purchase (the price, date, and order id)

**Login**

Enter the Username and Password for an existing account. Press Login.
Create account

Create a new account if you don't have any.
INTERFACE AND FUNCTIONALITIES FOR MOBILE VERSION

The Geoportal mobile version interface consists of a few main regions, which include header, layer tree, toolbar, map, tool options, map navigation toolbar and footer.
Login

Click the button on the right side of the header to sign in to the Geoportal.

1. **Username**
   
   Enter the username

2. **Password**
   
   Enter the password

3. **LOGIN**
   
   Click this button to finish the login process after filling the username and the password fields.
Create an account

Create an account

Click here to create new user account. Read more about this feature in the User registration chapter.

Forgot password

Forgot password

Click here if you forgot your account password. Read more about this feature in the Reset password chapter.
User registration

To register the user account you have to fill in the personal and employment information and send the registration request to the system administrator. Enter the required data, confirm that you are not a robot (reCAPTCHA) and click the Register button. You will receive an e-mail saying that your account request has been sent to the system administrator. You will be notified by e-mail when the system administrator activates your account.
1. **User information**

   Enter your personal and employment information in the fields provided.

2. **reCAPTCHA check**

   reCAPTCHA is a free service that protects the site from spam and abuse. Click the checkbox to prove that you are not a robot.

3. **Register**

   Click on this button to finish account registration procedure.
Reset password

Click the **Forgot password** link on the **Login form** to reset your account password. Enter the email associated with your account and click the Reset Password button to reset password. You will receive an email with the new password.

1. **Email**
   
Enter the email associated with your account.

2. **Reset password button**
   
   Click this button to finish the reset password procedure.
Map

Map is the basis of the ASIG Geoportal. It interactively shows and allows interaction with the spatial data.

Scale line

Scale line shows relation between the distance on the map and the distance in the real world in metric system.

Layer legend

Layer legend shows layer symbology so that you can visually differentiate the objects from the different layers on the map. Layer legend shows symbology only for currently visible layers.
Overview map
Overview map aids the map navigation by displaying main map viewport extent on the smaller scale. Overview map is synchronized with main map. Panning and zooming the main map will move the viewport extent indicator on the overview map and vice versa.

To close the overview map, click everywhere on the overview map area or overview map icon in the Map navigation toolbar.
Map navigation toolbar

Map navigation toolbar contains tools used for map navigation.

1. **Overview map**
   Overview map aids the map navigation by displaying main map viewport extent on the smaller scale. Read more about this feature in the **Overview map** chapter.

2. **Zoom to extent**
   Click to zoom to the maximum extent of the map.

3. **Fullscreen**
   Switches the Geoportal to the fullscreen mode. Header and footer are hidden in the fullscreen mode to maximize the window space available to the map.
Zoom level

Each dot represents a map zoom level, orange dot being the current zoom level. Click the dots to change map zoom level.

Zoom out

Click to zoom out the map.
Layer tree

The Layer tree allows you to view the layers published on the Geoportal. It provides many functionalities: making a layer or group of layers visible or invisible, layer transparency adjustment, active layer selection, layer information and more.

All layers tab

All the layers available in the system are displayed under this tab.
Themed tab

All the layers for the currently selected theme are displayed under this tab. Read more about this feature in Layer tree options and Themes chapters.

Active (visible) layers tab

All the layers currently visible on the map are displayed under this tab.

Layer tree options button

This button opens the layer tree options menu. Read more about this feature in the Layer tree options chapter.

Layer group

This is an example of a collapsed layer group. A click on the + symbol next to the layer group name will expand it.

Expand layer group button

A layer group is expanded by clicking on this button. When expanded, all the layers within the group will be displayed.

Inactive layer

This is an example of an inactive layer. There is a greyed-out checkmark in front of the layer and the layer contextual menu is not visible. This layer and its features are not currently visible on the map.

Opacity

Layer opacity (transparency), 0% - 100%.
Layer's contextual menu

- SET AS ACTIVE

- LAYER INFORMATION

- ZOOM TO LAYER

The layer's contextual menu contains options such as opacity, active layer selection, layer info and more.

**Note:** Contextual menus may differ for certain layer types but all of the possible options are mentioned in this chapter.

Layer activation button

- SET AS ACTIVE

Certain tools (drawing tools for example) will require a layer to be active before they can be used. A layer can be set as active by clicking this button. If a layer is active, the button will have an orange checkmark. Only one layer can be active at a time. If a layer is activated, a previously active layer (if any) will be deactivated automatically.

Layer information button

- LAYER INFORMATION

When this button is clicked, a pop-up with the layer information will be displayed enabling you to see various information such as the layer legend, metadata and services.

Layer information

- LEGEND

- SERVICES

https://geoportal.asig.gov.ai/service/wms

Zoom to layer button

- ZOOM TO LAYER

When clicked the map will zoom to the layer's extent, making the entire layer visible on the map.
Layer tree options

The layer tree options menu enables you to choose a theme and change the look of the layer tree.

1. **Theme button**
   - **DEFAULT THEME**
   - Clicking this button will display a modal window with a selection of themes you can choose from. The button's name reflects the currently selected theme.

2. **Selected catalogue**
   - **ALL LAYERS**
   - Displays the currently selected catalogue. These buttons have exactly the same functionality as the ALL/THEMED/ACTIVE layer tabs.

3. **Categorized view button**
   - **CATEGORIZED**
   - Clicking this button will enable or disable the categorized layer view in the layer tree. The categorized view (enabled by default) will display the layers in their groups. When disabled, all the layers will be displayed in a single, flat list. An orange checkmark will be displayed when the categorized view is enabled.
Themes

Themes are groups of layers sharing a common theme, for example: Hydrography, Historical maps, Geology, Land use, etc. Although all of the theme layers all already present under the ALL tab in the layer tree, this functionality gives you the option to filter the layers by a chosen theme and display them under the THEMED tab in the layer tree.

The theme selection functionality is provided in the Layer tree options. Clicking the theme selection button will display a window as shown above and you can choose a theme by clicking on its thumbnail.
This chapter describes the usage of the tools available in Geoportal.

**Identify**

This tool gives you the ability to identify objects from all of the visible layers on the map. Read more about this feature in the Identify chapter.

**Zoom to coordinates**

Zooms the map to the provided coordinates. You can choose the Coordinate Reference System for coordinate entry.

**Measurement tool**

You can measure length by selecting appropriate tool in the Tool options panel. After activating this tool, click the left mouse button anywhere on the map to start drawing a measurement line/polygon. Each subsequent left click adds a new point to the line/polygon. Double-click to finish drawing the line/polygon. Measured values are shown on drawn measurement objects.
4 Measure area

You can measure area by selecting appropriate tool in the Tool options panel. After activating this tool, click the left mouse button anywhere on the map to start drawing a measurement area.

5 Clean measures

You can click on this tool to clean measures.

6 Permalink

With permalink tool, you can create, save and share URL or QR code, which contains information about the current map view. Information about map view contains map position, zoom level, layer list with information about their visibility and transparency.

7 Search

Search tool allows you to search objects from layers in the database by typing or selecting the desired term and by defining other parameters such as search scope. Read more about this feature in the Search chapter.
Identify

This tool gives you the ability to identify objects from all of the visible layers on the map. There are two ways to identify objects:
1. by point where you click on the desired place on the map
2. by rectangle where you draw the rectangle on the map and identifies all of the objects that the rectangle touches.

Identify by point

Select this feature to identify objects on the map by point.

Identify by rectangle

Select this feature to identify objects on the map by rectangle.

Results

After identification is done, results will be shown in the Result area. Results are shown as a list of visible layers with a number of found features (e.g. in the example above we can see that identification is done on layers 'First Order (State)' and 'Second Order (Region)', and each layer has 1 feature). To see more details about layer features you can click on the layer name. After clicking on the layer name, a list of identified
features within a layer will be expanded and you can select the desired feature to view his attributes. Selected feature is highlighted red on the map.
Permalink

This tool is used to generate the link with current map view. You can copy and share link or QR code with other users.

1. **URL**

   ![URL](image)

   It will be displayed the generated link of the current map view.

2. **Copy link**

   ![Copy link](image)

   By clicking this button the link will be copied in the clipboard.
QR code will be generated automatically.

General information

Insert the e-mail address of the sender and receiver. Write the proper message and then click send.

Send

Click send after completing the steps above.
Search

Search tool allows you to search the objects from layers in the database by typing or selecting the desired term and by defining other parameters such as search scope.

Search text

Text to search for with minimum length of 3 characters. Search is executed automatically after you stop typing.
## Search results

<table>
<thead>
<tr>
<th>Feature Class</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical Names</td>
<td>498</td>
</tr>
<tr>
<td>Zonning</td>
<td>53</td>
</tr>
<tr>
<td>Road</td>
<td>24455</td>
</tr>
<tr>
<td>Buildings</td>
<td>581</td>
</tr>
<tr>
<td>Educational Services</td>
<td>453</td>
</tr>
<tr>
<td>Transport</td>
<td>795</td>
</tr>
<tr>
<td>Public Institutions</td>
<td>64</td>
</tr>
</tbody>
</table>

Displays the search results. They are grouped by belonging feature class. When you click on one feature class, first 10 objects are displayed. If you scroll down, new objects are loaded, if there are any. Clicking on an object will show its attributes, highlight it red and zoom to that object on map.

## Advanced search

- **TYPE**

- **OPTIONS**

- **SCOPE**

This block is used to define advanced search parameters, such as type or scope. Read more about this features in the [Advanced search](#) chapter.
Advanced search

Advanced search allows you to specify search parameters in detail. It is divided in three parts: type, options and scope.

1. **Search type**: Allows you to specify what attributes we want to search on. Read more about this feature in the Search type chapter.

2. **Search options**

3. **Search scope**
Search options

**OPTIONS** -

- ANY TEXT
- EXACT MATCH
- ✓ NEGATIVE
- PHRASE

Search options allow you to specify how to perform search based on the text input. Read more about this feature in the Search options chapter.

Search scope

**SCOPE** -

- ✓ ALL
- SELECTED OBJECTS
- CURRENT EXTENT
- USER DEFINED SHAPE

Search scope allows you to specify area you want to search on. Only objects that intersect the defined spatial scope will be returned in search results. Read more about this feature in the Search scope chapter.
Search type

Search type allows you to specify on what attributes do you want to search on.

1. **Freetext search**
   - FREETEXT SEARCH
   - Search text will be searched in every attribute of every object.

2. **Targeted search**
   - TARGETED SEARCH
   - You can specify filters to limit search to only some attributes of the feature class. Clicking on this item opens a block for filters, described below.

3. **Selected filters**
   - Attribute | Operator | Value | Remove
   - Urban Type | > | 1
   - This block shows a list of filters that are currently active. A filter can be removed by clicking on red circle in Remove tab.
New filter input

**FEATURE CLASS**

Educational Services

**FEATURE CLASS ATTRIBUTE**

Local Government Unit

**OPERATOR**

=  

**VALUE**

You can insert a new filter. We have to specify feature class, attribute, operator (like =, > etc.) and value. Filter is added after clicking on button Add filter.
Search options

Search options allow us to specify how to perform search based on the text input.

Any text

Object has to contain the search text in part of any of its attributes and in any order to be returned in the search results.

Exact match

At least one attribute value of an object has to fully match search text to be returned in the search results.

Negative

None of the object attribute values can consist of search text to be returned in the search results.

Phrase

Object has to contain search text in part of one of its attribute values to be returned in the search results. Order of search words must be preserved.
Search scope

Search scope allows us to specify the area we want to search on. Only objects that intersect that scope will be returned in search results.

1. **All**
   
   Search is not limited by the spatial scope.

2. **Selected objects**
   
   You can select objects on map (on active layer(s)), and bounding box of those objects will be the scope of the search. Tool for selecting objects is a part of this block.

3. **Current extent**
   
   Current extent of the map (current view) will be the scope of the search.

4. **User defined shape**
   
   You can define a geometry with given tools that will be the scope of the search.