
iDAI Geoserver

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dai

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Welcome to iDAI GeoServer Documentation.

iDAI GeoServer uses “geonode”, a OpenSource Content Management System (CMS) for geospatial data. It is a web-based application and platform for developing geospatial information systems (GIS) and for deploying spatial data infrastructures (SDI).

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1.1 GeoNode Users Guide

1.1.1 Accounts and User Profile

In GeoNode many contents are public so unregistered users have read-only access to public maps, layers and documents. In order to create maps, add layers or documents, edit the data and share these resources with other users, you need to sign in.

GeoNode is primarily a *social* platform, thus a primary component of any GeoNode instance is the user account.

This section will guide you through account registration, updating your account information and preferences, connections with social networks and email addresses.

Creating a New Account

To take full advantage of all the GeoNode features you need an user account. Follow these step to create a new one.

1. From any page in the web interface, you will see a *Register* link. Click that link, and the register form will appear

Note: The registrations in GeoNode must be open, in case you don't see the register link then it's not possible to register unless the administrator of the site does that for you.

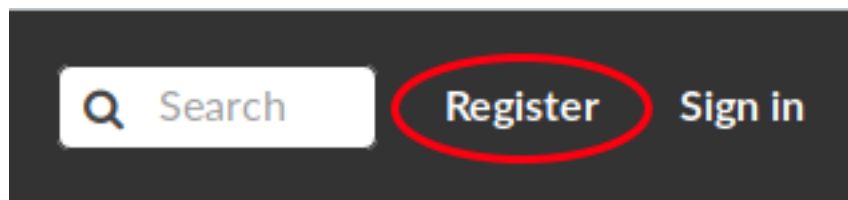



Fig. 1: *Sign in screen*

2. On the next page, fill out the form. Enter a user name and password in the fields. Also, enter your email address for verification.
3. You will be automatically logged in and redirected to the Profile page. An email will be sent confirming that you have signed up. If no errors occur during the registration, the following alerts will appear on the screen:

 [Data](#) [Maps](#) [About](#)

[Register](#) [Sign in](#)

Sign up

Create a new local account

E-mail

Username

Password

Password (again)

[Sign up](#)

Fig. 2: Registering for a new account

Confirmation e-mail sent to john.smith@mail.com. ×

Successfully signed in as johnsmith. ×

Fig. 3: Alerts

To logout click on the *Log out* link of the user menu.

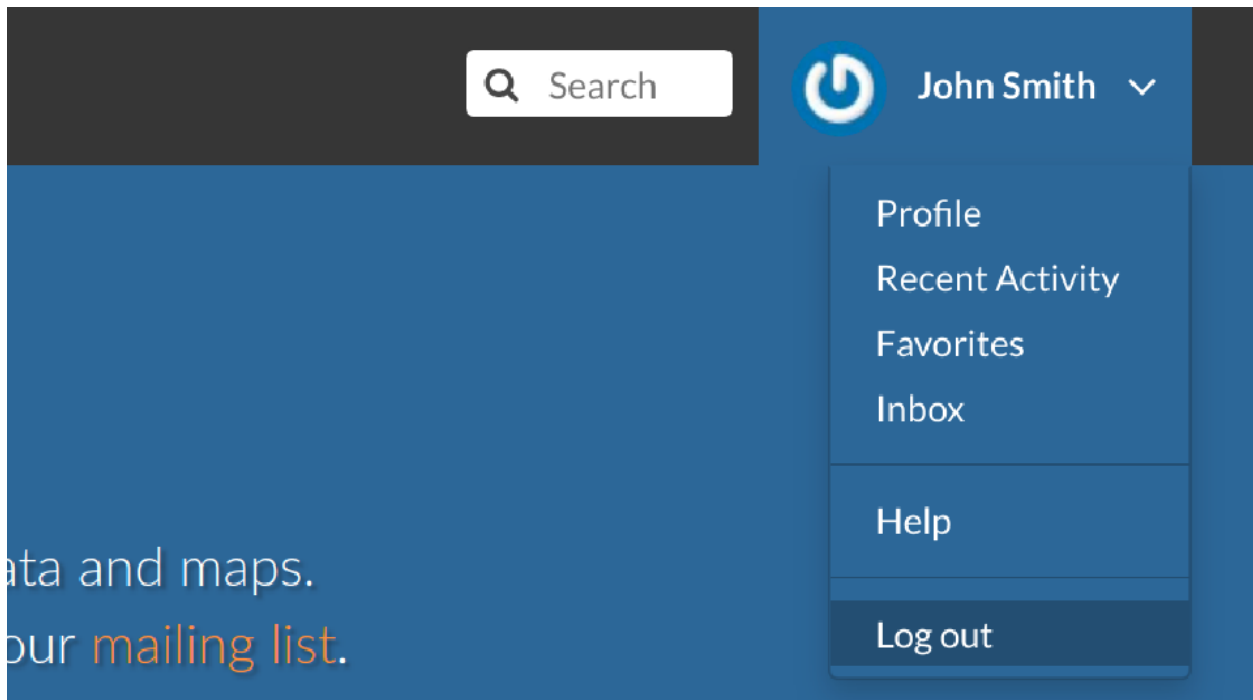


Fig. 4: Logout link

You have to confirm this action as described in the picture below.



Fig. 5: Confirm Log out

Updating the Profile

Once having an account you can enrich your profile with useful information, you can also edit or delete the existing ones. You can associate many e-mail addresses to it and manage many options such as preferences about notifications.

You can update these information anytime from your *Profile* page, it is accessible from the user menu.

So, click on your user name in the top right of the screen. A drop-down list will show. Click on *Profile* to enter the *Profile* settings page.

The *Profile* page looks like the one shown in the picture below.

Your personal information are shown under the username. At the bottom of the page are listed all the resources associated to your *Profile*, you can decide to view only layers or maps or documents by clicking on the corresponding tab.

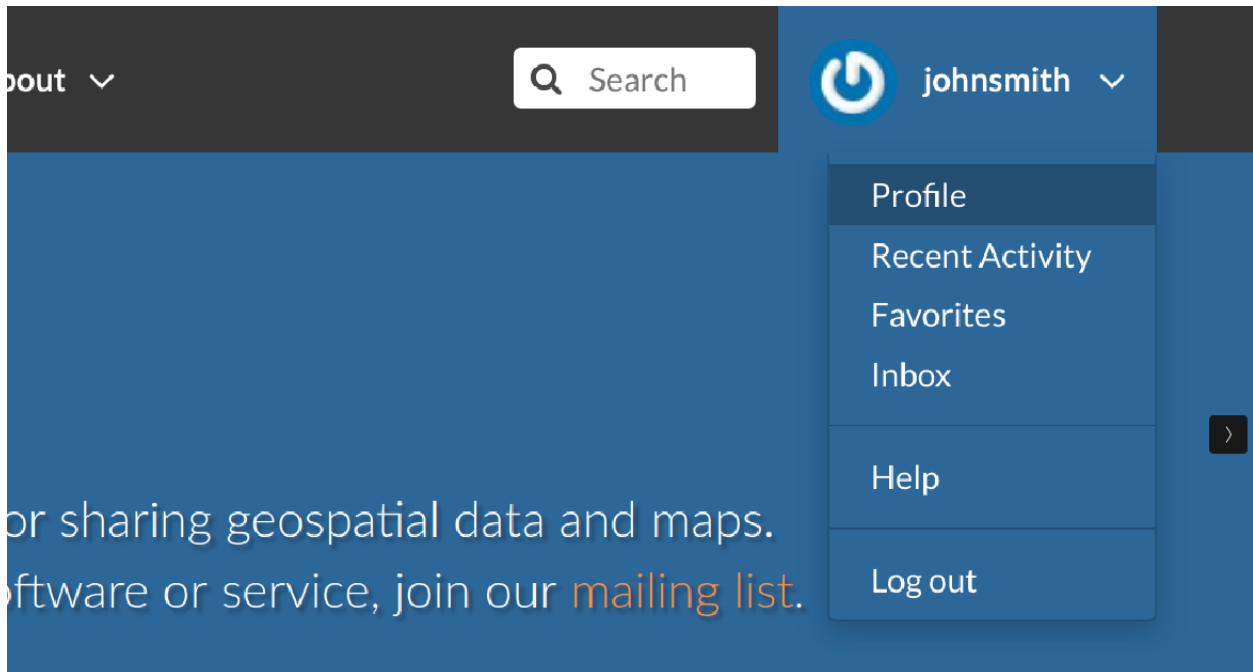


Fig. 6: Link to your profile

Through the link `User layers WMS GetCapabilities` document you can retrieve an XML document with the list of the available layers.

On the right side of the page there are many useful links to edit personal information, to upload and create layers or maps, to update your *Profile* settings and to get in touch with other GeoNode users.

The *Favorites* link, also accessible from the user menu, drive you to the list of the resources marked as your favorites.

Click the *Delete from Favorites* button to remove the resource from the list.

The *My Activities* link allows to see all your recent activities on GeoNode such as layers uploading and maps creation.

This link is also available in the user menu.

All other links and their functionalities will be described in depth in the following sections.


Editing Profile Information

Your *Profile* contains personal information such as your address, your telephone number, your organization and so on but it is empty by default at the beginning.

Through the *Edit profile* button of the *Profile* page (see [Updating the Profile](#)) you can set your details, including your avatar.

When finished, click *Update profile*. You will be redirected to the *Profile* page.


A message will confirm the profile has been correctly updated.




[Data](#) [Maps](#) [About](#)

Q

Search

johnsmith

johnsmith



johnsmith

Position	Not provided.
Organization	Not provided.
Location	Not provided.
Voice	Not provided.
Fax	Not provided.
Description	Not provided.
Keywords	Not provided

User layers WMS GetCapabilities document

Message User

Edit profile

Connected social accounts

Associated e-mails

Set/Change password

Upload new layers

Create a new layer

Create a new map

My Activities

Favorites

Notifications

Invite Users

Resources

All contents

Layers

Maps

Documents

no image

OSM Railways

Railways extracted from OSM

johnsmith


4 Jun 2019

0

0

0

View Map



railways

No abstract provided

johnsmith

4 Jun 2019

0

0

0

Create a Map

<


page 1 of 1




>


Fig. 7: User profile page



1.1. GeoNode Users Guide

6



[Data](#) [Maps](#) [About](#) 


 Search




 John Smith 


Favorites for johnsmith



Item	Type	
Cycle_Routes_polyline	layer	Delete from Favorites
Tuscany roads	map	Delete from Favorites

Fig. 8: Favorites





[Data](#) [Maps](#) [About](#) 

 Search



 John Smith 

Activity Feed for johnsmith



johnsmith created [OSM Railways by johnsmith](#)


21 minutes ago




johnsmith uploaded [geonode:railways](#)

22 minutes ago

Fig. 9: Recent activities


[Data](#)
[Maps](#)
[About](#)


johnsmith



First name

Last name

Email address

Organization Name

name of the responsible organization

Profile

John Smith profile

introduce yourself

Position Name

role or position of the responsible person

Voice

telephone number by which individuals can speak to the responsible organization or individual

Facsimile

telephone number of a facsimile machine for the responsible organization or individual

Delivery Point

physical and email address at which the organization or individual may be contacted

City

city of the location

Administrative Area

state, province of the location

Postal Code

ZIP or other postal code

Country

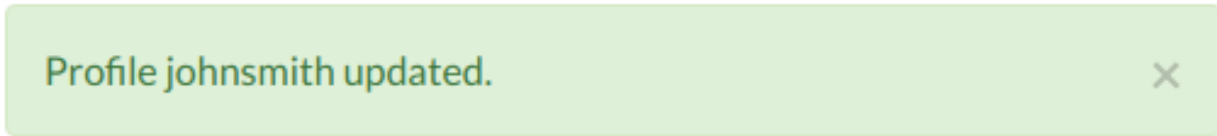
country of the physical address

Keywords

A space or comma-separated list of keywords

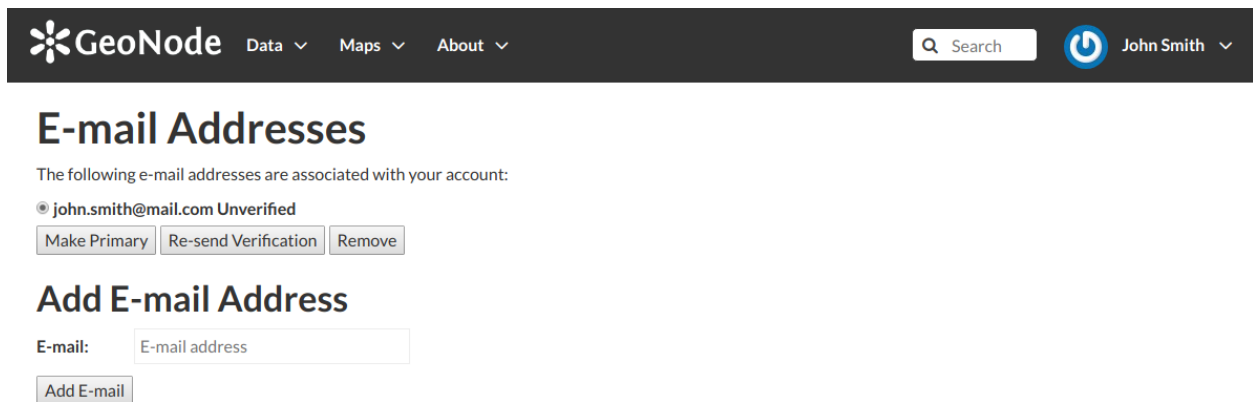
Language

Timezone

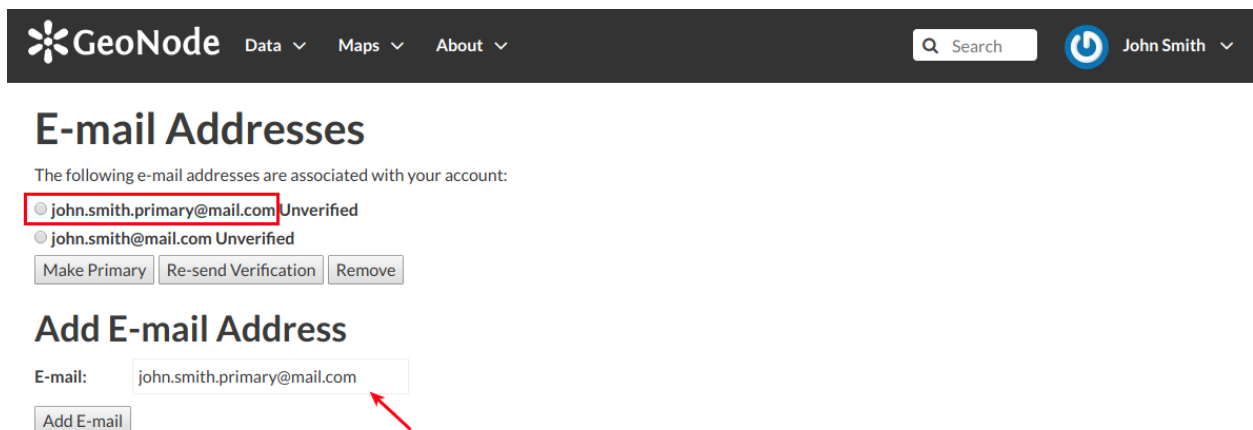
Fig. 11: *Updating Profile correctly finalized*

Associating your Account with an e-mail

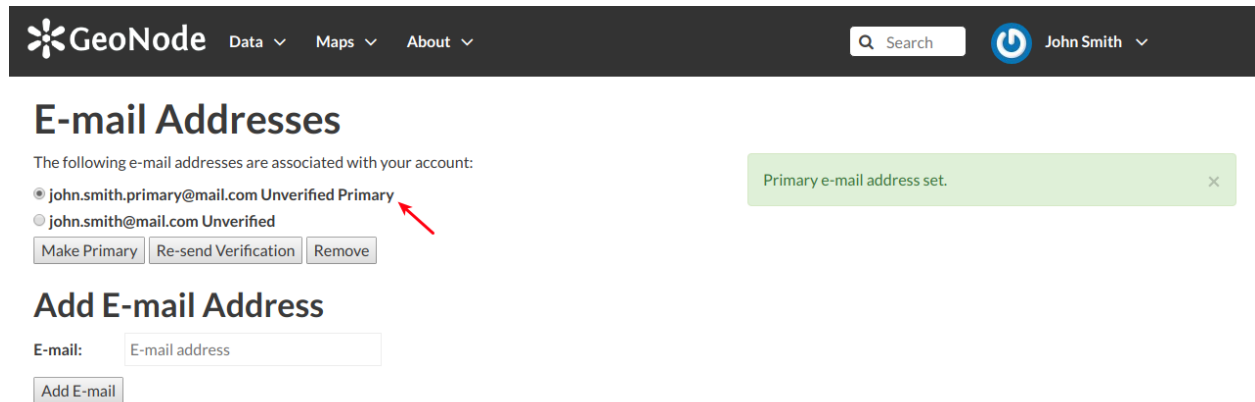
Your account is automatically associated with the e-mail that you used to register yourself on the platform.

Fig. 12: *Accounts e-mail*

By clicking on *Associated e-mails* of the *Profile* page (see [Updating the Profile](#)), you will have the possibility to fill up a new e-mail address. Type it in the *E-mail* input field then click on *Add E-mail* to perform a new association.

Fig. 13: *New e-mail association*

You can make it primary if necessary, in order to receive the notification on this address. To do that, select the e-mail that you want, then click on *Make Primary*.



E-mail Addresses

The following e-mail addresses are associated with your account:

- john.smith.primary@mail.com Unverified Primary
- john.smith@mail.com Unverified

Make Primary Re-send Verification Remove

Add E-mail Address

E-mail:

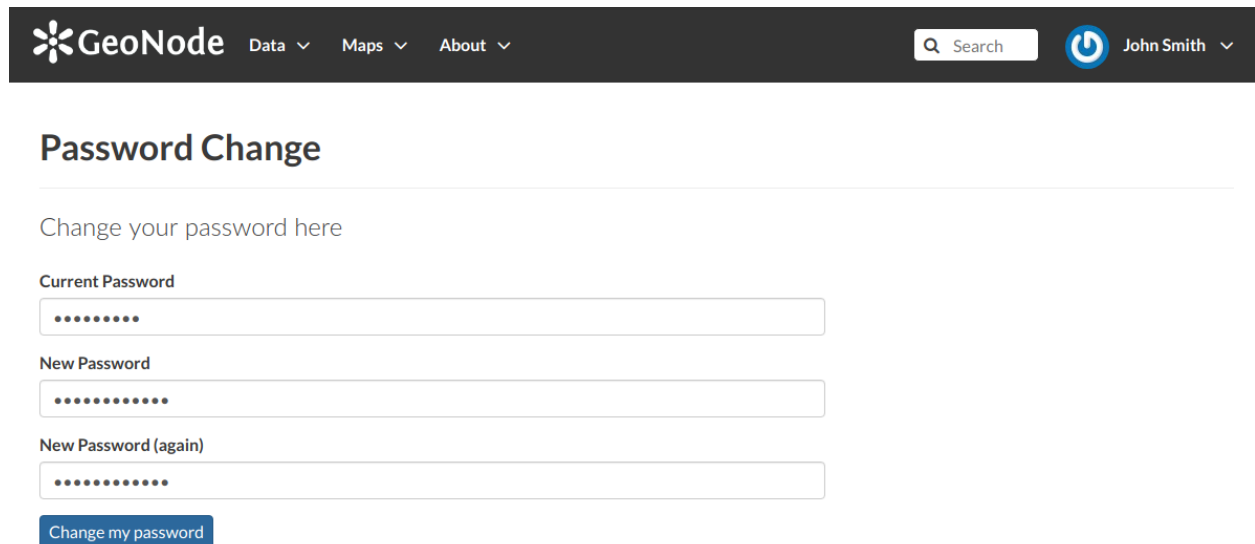
Add E-mail

Primary e-mail address set.

Fig. 14: *Primary e-mail address*

Managing the Password

To change your password, click on the *Set/Change password* link of the *Profile* page (see [Updating the Profile](#)). You will be asked to enter your current password and the new one (two times). Click on *Change my password* to perform the change.



Password Change

Change your password here

Current Password

.....

New Password

.....

New Password (again)

.....

Change my password

Fig. 15: *Change your password*

If no errors occur you will see a confirmation message.

Next time you log in you will have to use the new password.

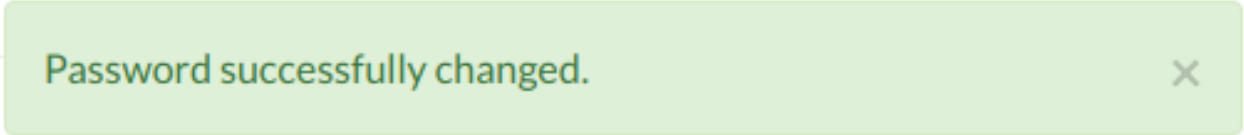


Fig. 16: *Change password confirmation*

Setting Notification Preferences

By default GeoNode sends notifications to the users for events that the users could be subscribe such as a new layer uploaded or a new rate added to a map. You can adjust your notification settings by clicking on the *Notifications* link of the *Profile* page (see *Updating the Profile*).

Note: Make sure to have a verified email address to which notices can be sent. If not see *Associating your Account with an e-mail*.

Now check/uncheck the notification types you wish to receive or not receive. It is possible to be notified for the events shown in the picture below.

1.1.2 Interacting with Users and Groups

The GeoNode platform allows you to communicate by message with other GeoNode users and groups of users.

You can also invite external users to join your GeoNode. In order to do that, click on *Invite Users* in the *Profile* page (see *Updating the Profile*) or in the *About* menu in the *Home* page.

You can invite your contacts typing their email addresses in the input field as shown in the picture below. Click on *Submit* to perform the action.

A message will confirm that invitations have been correctly sent.

Note: You can invite more than one user at the same time by typing the email addresses inline with a semi-colon separator.

The next sections will show you how to view information about other users and how to contact them.


Viewing other users information


Once your account is created, you can view other accounts on the system.

To see information about other users on the system, click the *People* link of the *About* menu in *Home* page.

You will see a list of users registered on the system.

The *Search* tool is very useful in case of many registered users, type the name of the user you are looking for in the input text field to filter the users list.

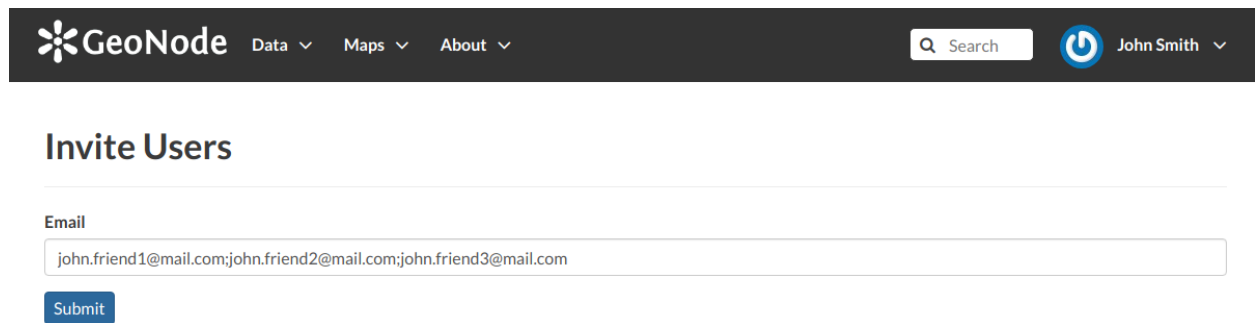

Data ▾
Maps ▾
About ▾

 John Smith ▾

Notification Settings

Notification Type	Email
Request to download a resource A request for downloading a resource was sent	<input checked="" type="checkbox"/>
Layer Created A Layer was created	<input checked="" type="checkbox"/>
Layer Updated A Layer was updated	<input checked="" type="checkbox"/>
Layer Approved A Layer was approved by a Manager	<input checked="" type="checkbox"/>
Layer Published A Layer was published	<input checked="" type="checkbox"/>
Layer Deleted A Layer was deleted	<input checked="" type="checkbox"/>
Comment on Layer A layer was commented on	<input checked="" type="checkbox"/>
Rating for Layer A rating was given to a layer	<input checked="" type="checkbox"/>
Map Created A Map was created	<input checked="" type="checkbox"/>
Map Updated A Map was updated	<input checked="" type="checkbox"/>
Map Approved A Map was approved by a Manager	<input checked="" type="checkbox"/>
Map Published A Map was published	<input checked="" type="checkbox"/>
Map Deleted A Map was deleted	<input checked="" type="checkbox"/>
Comment on Map A map was commented on	<input checked="" type="checkbox"/>
Rating for Map A rating was given to a map	<input checked="" type="checkbox"/>
Document Created A Document was created	<input checked="" type="checkbox"/>
Document Updated A Document was updated	<input checked="" type="checkbox"/>
Document Approved A Document was approved by a Manager	<input checked="" type="checkbox"/>
Document Published A Document was published	<input checked="" type="checkbox"/>
Document Deleted A Document was deleted	<input checked="" type="checkbox"/>
Comment on Document A Document was commented on	<input checked="" type="checkbox"/>
Document for Map A rating was given to a document	<input checked="" type="checkbox"/>
User following you Another user has started following you	<input checked="" type="checkbox"/>
User requested access A new user has requested access to the site	<input checked="" type="checkbox"/>
Account activated This account is now active and can log in the site	<input checked="" type="checkbox"/>
Layer Uploaded A layer was uploaded	<input checked="" type="checkbox"/>
Monitoring alert Alert situation reported by monitoring	<input checked="" type="checkbox"/>

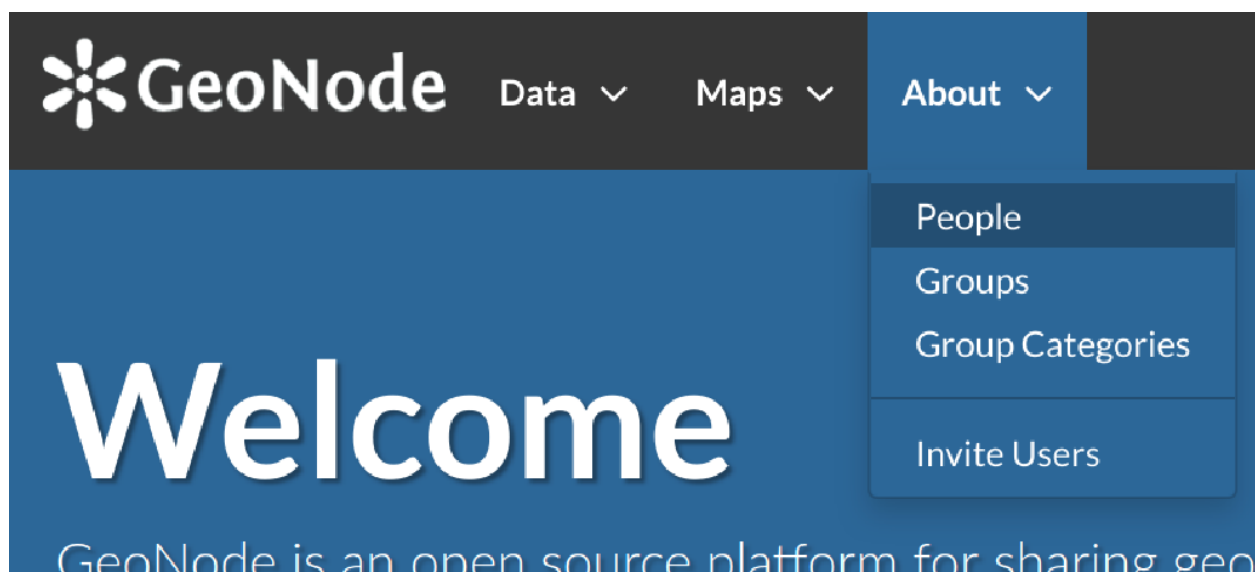
Change



The screenshot shows the 'Invite Users' page on the GeoNode interface. At the top is a dark navigation bar with the GeoNode logo, links for 'Data', 'Maps', and 'About', a search bar, and a user profile for 'John Smith'. Below the navigation bar, the page title 'Invite Users' is displayed. The main content area contains a form with a label 'Email' and a text input field containing the email addresses 'john.friend1@mail.com;john.friend2@mail.com;john.friend3@mail.com'. A blue 'Submit' button is located below the input field.

Fig. 18: *Invite users to join GeoNode*

A green confirmation message box with the text: 'Invitations succefully sent to 'john.friend1@mail.com, john.friend2@mail.com, john.friend3@mail.com''.

Fig. 19: *Invitations confirm message*Fig. 20: *About menu - People link*

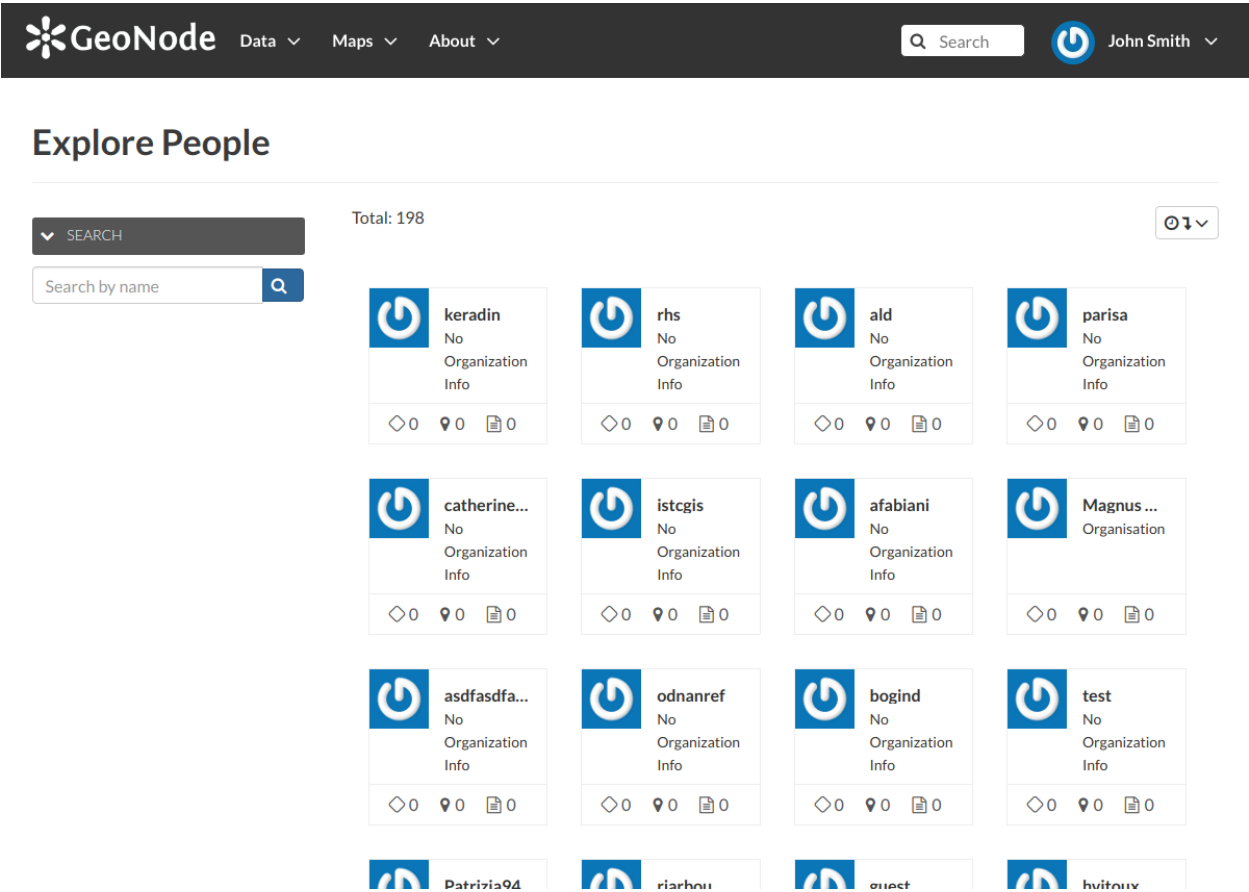


Fig. 21: List of the registered users

Select a user and click on its *username* to access to the user details page.

The screenshot displays the GeoNode user details page for Mario Rossi (mariorossi). The header includes the GeoNode logo, navigation links (Data, Maps, About), a search bar, and a user profile (John Smith). The main content area features a user profile card with a blue circular icon containing a white power symbol. To the right of the icon is a table of user information:

Mario	
Position	Not provided.
Organization	Mario Rossi Transport
Location	Not provided.
Voice	Not provided.
Fax	Not provided.
Description	Not provided.
Keywords	Not provided

Below the table is a link: [User layers WMS GetCapabilities document](#). To the right of the profile card are two buttons: [Message User](#) and [User Activities](#).

The **Resources** section is located below the profile card. It has tabs for [All contents](#), [Layers](#), [Maps](#), and [Documents](#). Under the [Layers](#) tab, there are two resource cards:

- Tuscany roads**: Roads of Tuscany. Created by Mario Rossi on 3 Jun 2019. View Map.
- roads**: No abstract provided. Created by Mario Rossi on 3 Jun 2019. Create a Map.

At the bottom right, there is a pagination control: [<](#) [page 1 of 1](#) [>](#).

Fig. 22: *User details*

In this page the main information about the user are shown: personal information (name, surname, organization and so on...) and the resources the user owns (layers, maps and documents).

Through the *User Activities* link, in right side of the page, it is possible to visualize all the activities the user has been done.

The *Message User* link lets you to contact other users, see the next section to read more about that.

It is also possible, in GeoNode, to see the recent activities of all users through the *Recent Activities* link of the user

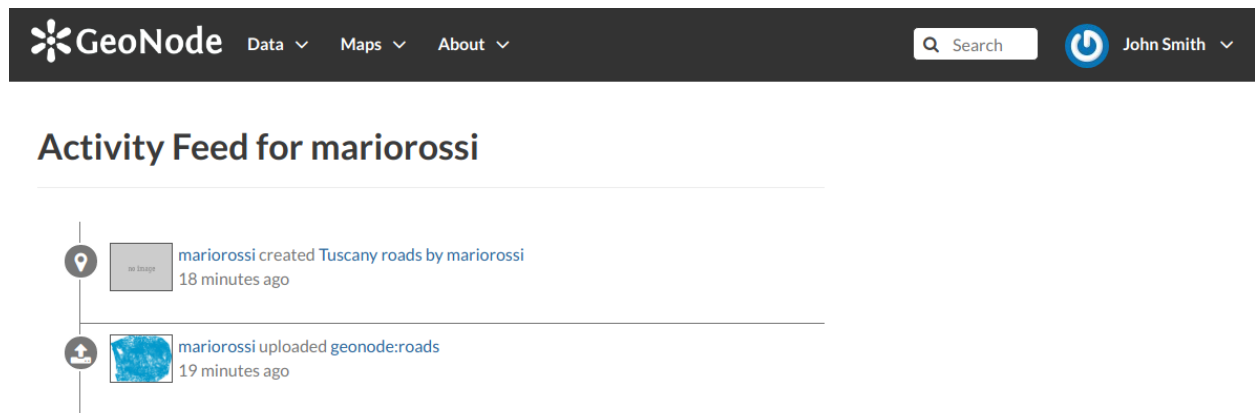


Fig. 23: User activities

menu.

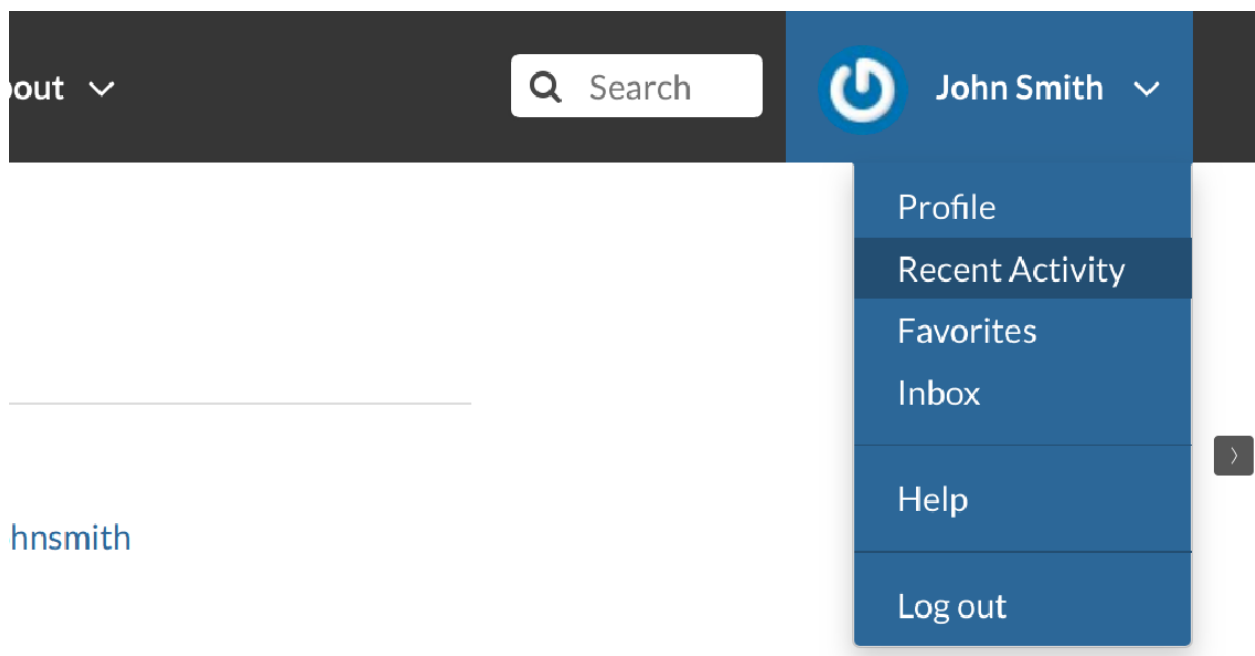


Fig. 24: Recent Activities link

In the picture below an example.

As you can see, you can decide whether to see only the activities related to layers or those related to maps or comments by switching the tabs.

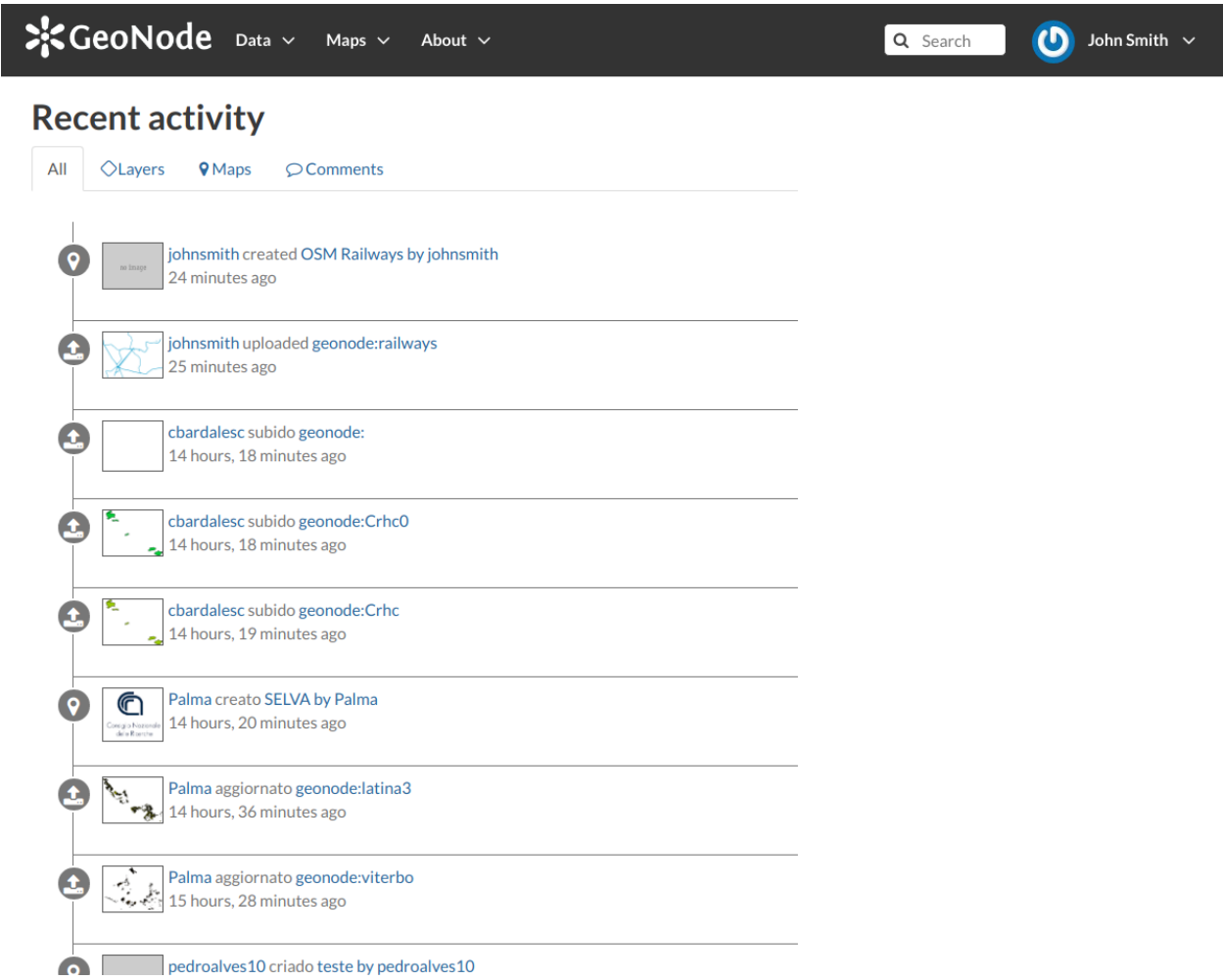
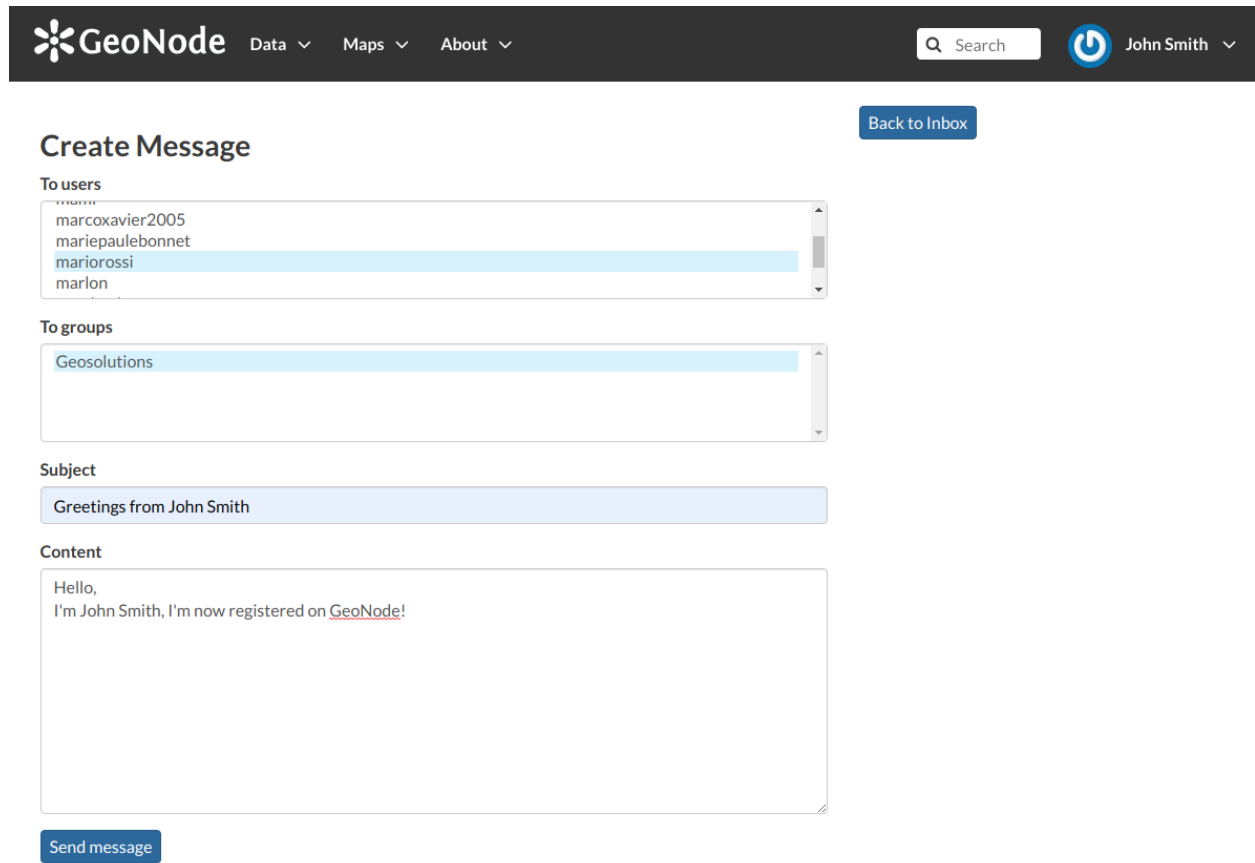


Fig. 25: Recent Activities

Contacting other users

GeoNode allows you to communicate by message with other registered users and groups.

To send a message to some user and/or groups you can follow the link *Message User* from your *Profile* page (see *Updating the Profile*) or from the *Profile* details page (see the previous section *Viewing other users information*) of that user.



The screenshot shows the 'Create Message' interface on the GeoNode website. At the top is a dark navigation bar with the GeoNode logo, links for 'Data', 'Maps', and 'About', a search bar, and a user profile for 'John Smith'. Below the navigation bar is a 'Back to Inbox' button. The main form is titled 'Create Message' and contains four sections: 'To users' with a list of users (marcoxavier2005, mariepaulebonnet, mariorossi, marlon) where 'mariorossi' is selected; 'To groups' with a list of groups (Geosolutions) where 'Geosolutions' is selected; 'Subject' with a text input field containing 'Greetings from John Smith'; and 'Content' with a text area containing 'Hello, I'm John Smith, I'm now registered on [GeoNode!](#)'. At the bottom left of the form is a 'Send message' button.

Fig. 26: *Send message to users and groups*

Insert your content, type a subject and click on *Send message* to send the message to the users and groups you have selected.

You will be redirected to the *Conversation* details page related to the subject.

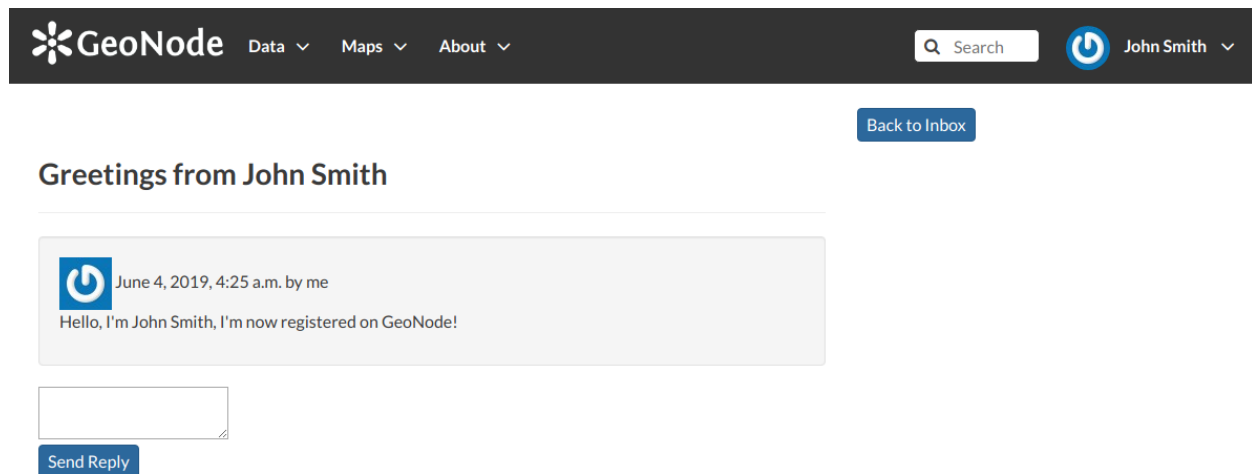


Fig. 27: Your message

The Inbox page

You can view your conversations in your *Inbox* page, reachable through the *Back to inbox* button (see the picture above) or from the *Inbox* link of the user menu.

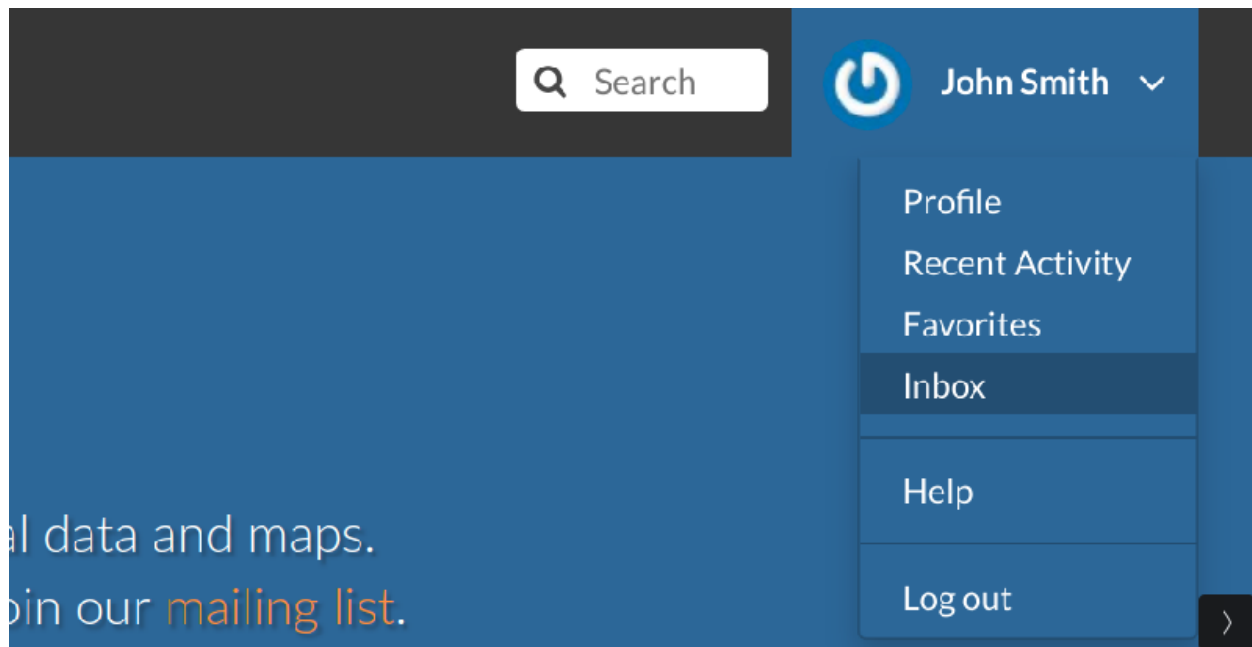


Fig. 28: Inbox link

The picture below shows how your *Inbox* page should look like.

In *Inbox* all the unread messages are listed. You haven't received any message yet so your *Inbox* is empty. If you switch to the *All* tab you can see all the conversations you are involved in.

When some user send a reply to your message your *Inbox* shows it, see the picture below for an example.

You can open the *Conversation* details by clicking on the *Subject* link.

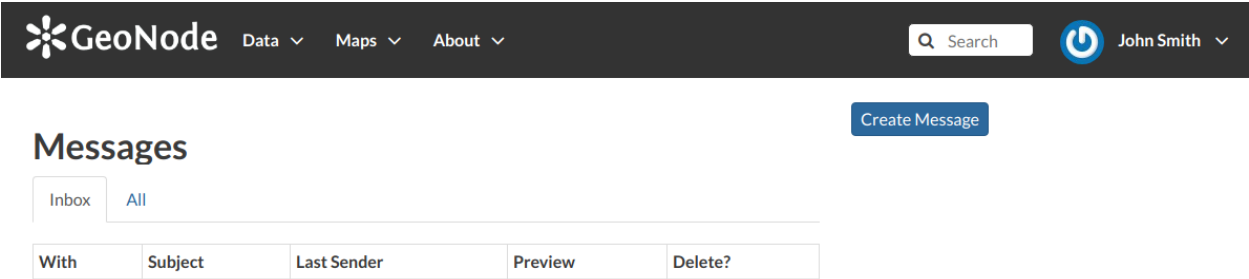


Fig. 29: *Inbox page*

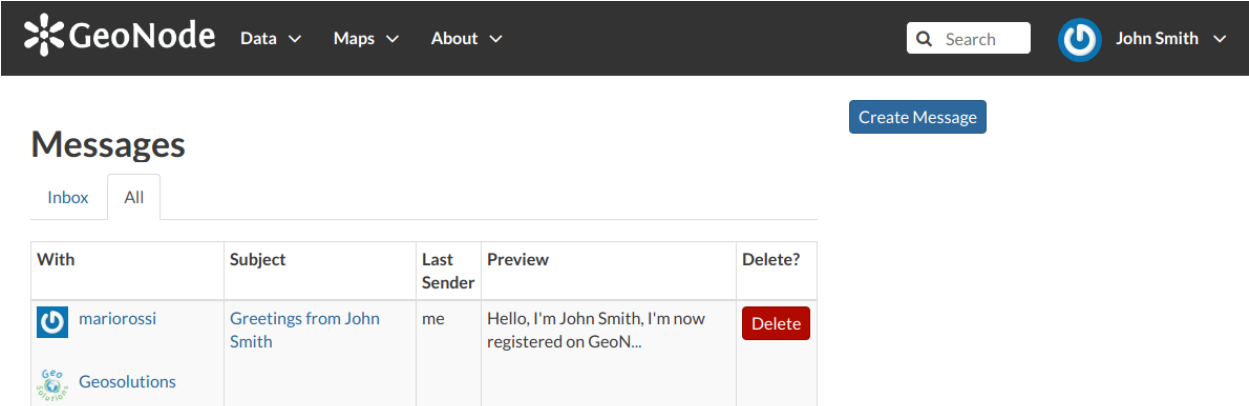


Fig. 30: *All your conversations*

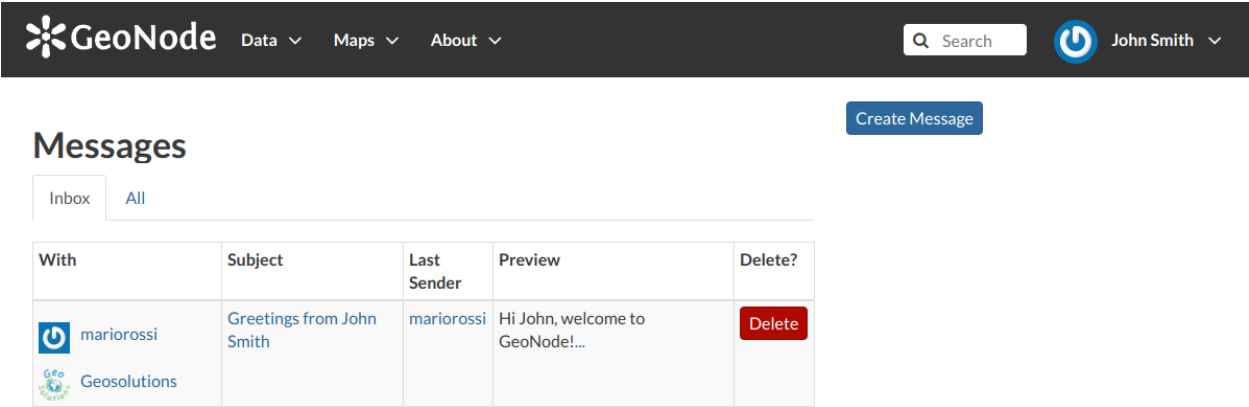


Fig. 31: *A reply to your message*

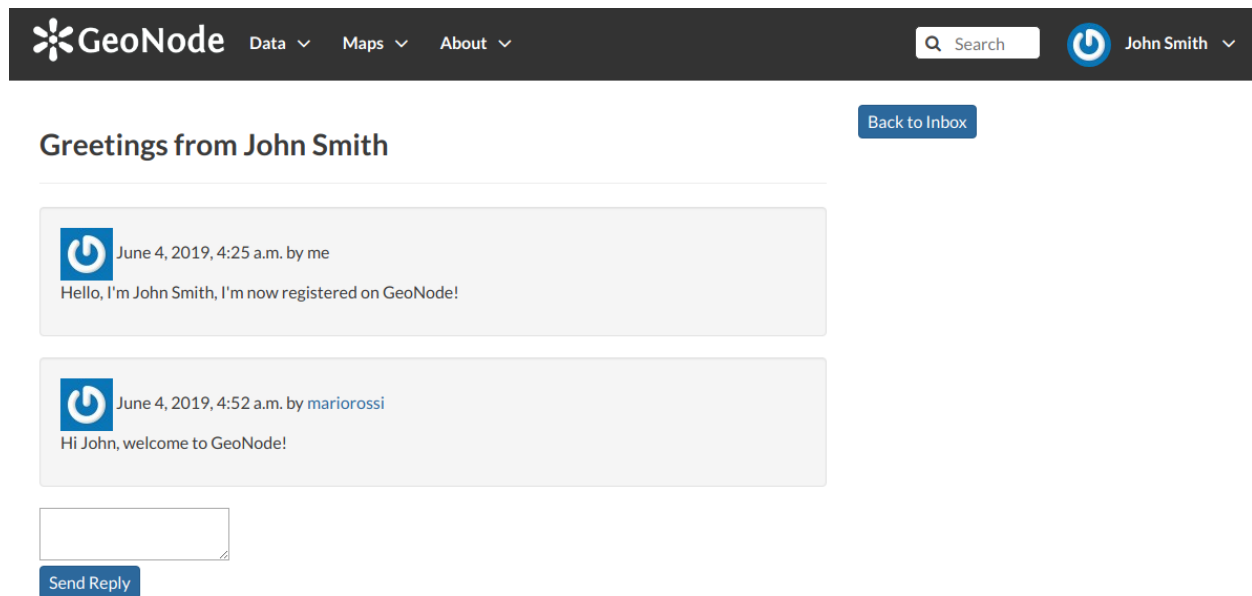


Fig. 32: Conversation details

As you can see in the picture above, in the *Conversation* page you have the ability to write a quick reply. Type your message in the text box and click on *Send Reply* to do that.

In the *Inbox* page there is also the *Create Message* button that provides you a quick link to the message creation form.

1.1.3 Data

Data management tools built into GeoNode allow for integrated creation of data, documents, link to external documents, and map visualizations. Each dataset in the system can be shared publicly or restricted to allow access to only specific users. Social features like user profiles and commenting and rating systems allow for the development of communities around each platform to facilitate the use, management, and quality control of the data the GeoNode instance contains.

The following sections will explain more in depth what data can be managed in GeoNode and how to easily find that data.

Data Types

GeoNode welcome page shows a variety of information about the current GeoNode instance.

You can explore the existing data using many search tools and filters (see [Finding Data](#)) or through the links of the navigation bar at the top of the page.

There are three main types of resources that GeoNode can manage:

1. Documents
2. Layers
3. Maps

Documents and layers can be accessed from the *Data* menu of the navigation bar.

The *Maps* menu let you to manage maps.

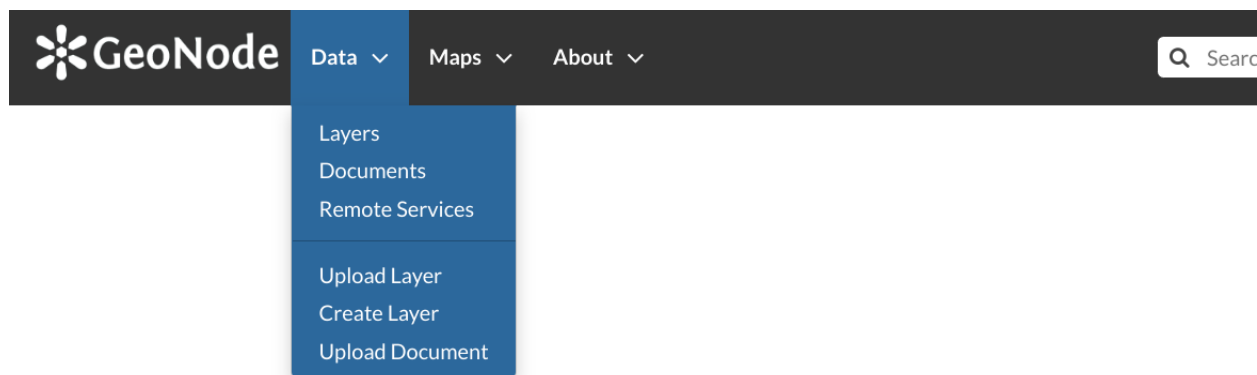


Fig. 33: Data menu

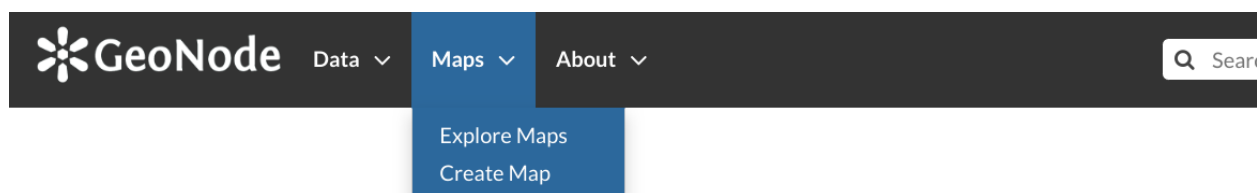


Fig. 34: Maps menu

Documents

GeoNode allows to publish tabular and text data and to manage metadata and associated documents.

Documents can be uploaded directly from your disk (see [Uploading Documents](#) for further information).

The following documents types are allowed: `.doc`, `.docx`, `.gif`, `.jpg`, `.jpeg`, `.ods`, `.odt`, `.odp`, `.pdf`, `.png`, `.ppt`, `.pptx`, `.rar`, `.sld`, `.tif`, `.tiff`, `.txt`, `.xls`, `.xlsx`, `.xml`, `.zip`, `.gz`, `.qml`.

Through the document detailed page is possible to view, download and manage a document.

Layers

Layers are a primary component of GeoNode.

Layers are publishable resources representing a raster or vector spatial data source. Layers also can be associated with metadata, ratings, and comments.

By clicking the Layers link you will get a list of all published layers. If logged in as an administrator, you will also see the unpublished layers in the same list.

GeoNode allows the user to upload vector and raster data in their original projections using a web form.

Vector data can be uploaded in many different formats (ESRI Shapefile, KML and so on...). Satellite imagery and other kinds of raster data can be uploaded as GeoTIFFs.

Maps

Maps are a primary component of GeoNode.

Maps are comprised of various layers and their styles. Layers can be both local layers in GeoNode as well as remote layers either served from other WMS servers or by web service layers such as Google or MapQuest.

GeoNode maps also contain other information such as map zoom and extent, layer ordering, and style.

You can create a map based on uploaded layers, combine them with some existing layers and a remote web service layer, share the resulting map for public viewing. Once the data has been uploaded, GeoNode lets the user search for it geographically or via keywords and create maps. All the layers are automatically reprojected to web mercator for maps display, making it possible to use popular base maps such as [OpenStreetMap](#).

Finding Data

This section will guide you to navigate GeoNode to find layers, maps and documents by using different routes, filters and search functions.

In *Home* page you can find some quick search tool.

The *Search* box in the navigation bar (see the picture below) let you type a text and find all the data which have to deal with that text.



Fig. 35: Search tool in GeoNode welcome page

When you trigger a search you are brought to the *Search* page which shows you the search result through all data types.

This page contains a wealth of options for customizing a search for various information on GeoNode. This search form allows for much more fine-tuned searches than the simple search box is available at the top of every page.

It is possible to search for data by Text, Categories, Type, Keywords, Owners, Date, Regions or Extent.

Try to set some filter and see how the resulting data list changes accordingly. An interesting type of filter is *EXTENT*: you can apply a spatial filter by moving or zooming a map within a box as shown in the picture below.

Data can be ordered by date, name and popularity.

The GeoNode welcome page offers you many other options to find resources.

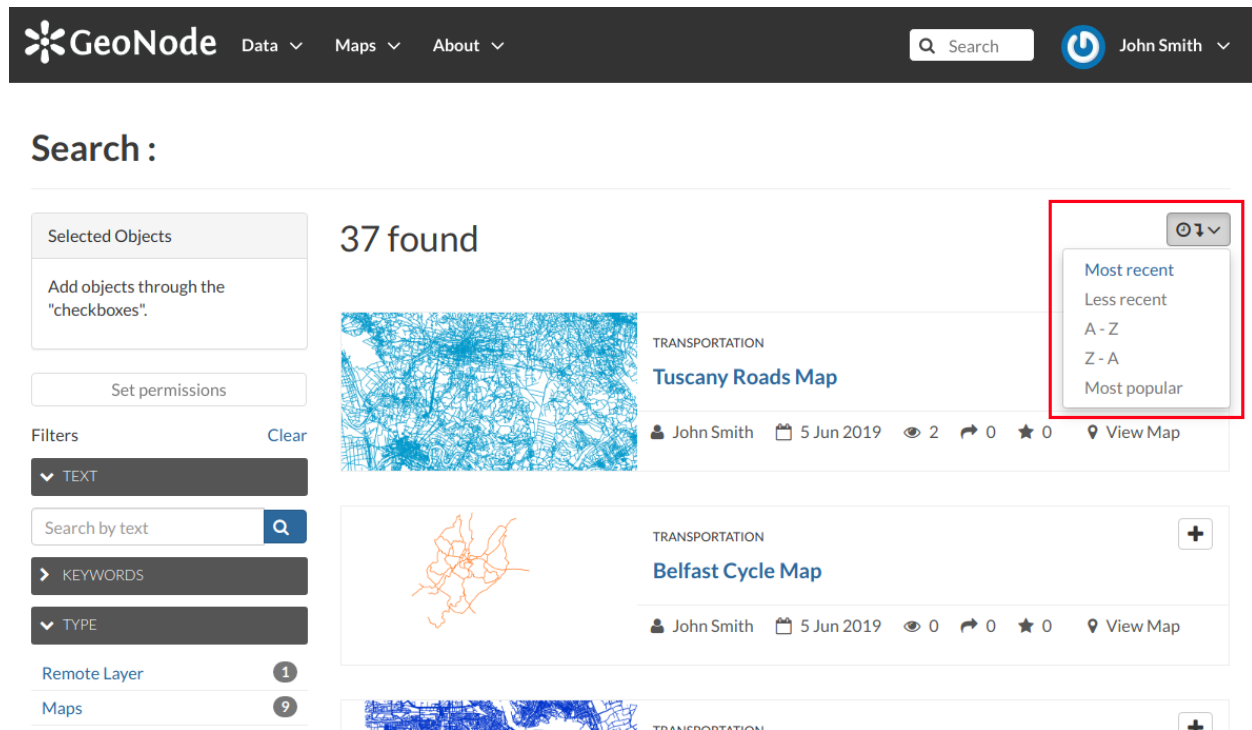
- The *Search for data* tool allows you to search for data by name.

The *Search* page, which you will be redirected to, will have the TEXT filter already set with the name you have typed in the search box (see the picture below). If you want to reach the *Search page* directly, without any input text, you can click the *Advanced Search* link.



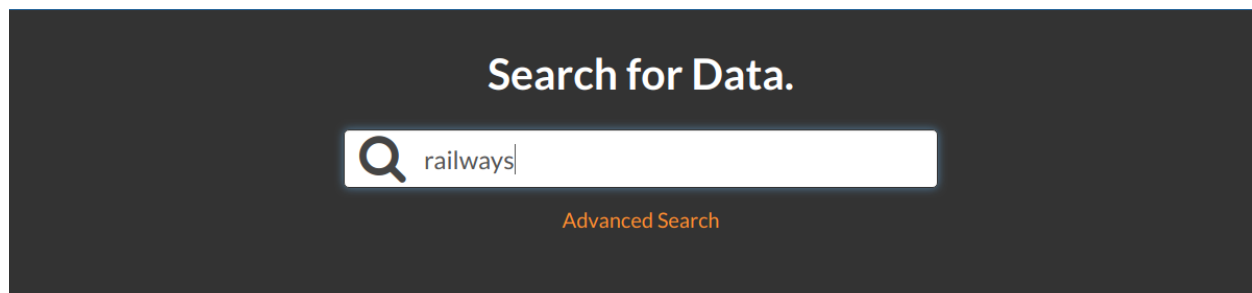


Fig. 37: Search filter by *EXTENT*



The screenshot shows the GeoNode search results page. The header includes the GeoNode logo, navigation links (Data, Maps, About), a search bar, and a user profile (John Smith). The main content area displays "37 found" results. On the left, there are filters for "Selected Objects", "Add objects through the 'checkboxes'", "Set permissions", and "Filters" (Text, Keywords, Type). The search results list includes "Tuscany Roads Map" and "Belfast Cycle Map". A red box highlights a sorting dropdown menu with options: "Most recent", "Less recent", "A - Z", "Z - A", and "Most popular".

Fig. 38: Ordering Data



The screenshot shows the GeoNode search interface. The main heading is "Search for Data.". Below it is a search bar with the text "railways". To the right of the search bar is a button labeled "Advanced Search".

Fig. 39: Searching for data

The screenshot shows the GeoNode web interface. At the top is a dark navigation bar with the GeoNode logo, links for Data, Maps, and About, a search bar, and a user profile for John Smith. Below this, the page title is 'Search : railways'. On the left is a sidebar with a 'Selected Objects' section, a 'Set permissions' button, and a 'Filters' section. The 'Filters' section includes a 'TEXT' filter with a search box containing 'railways' (highlighted with a red circle), and several other filter categories like KEYWORDS, TYPE, CATEGORIES, OWNERS, DATE, REGIONS, and EXTENT. The main content area shows '2 found' results. The first result is 'OSM Railways' by John Smith, dated 4 Jun 2019, with 7 views and 0 interactions. The second result is 'railways' by John Smith, dated 4 Jun 2019, with 9 views and 0 interactions. Both results include a thumbnail image and a 'View Map' link. The page footer shows 'page 1 of 1'.

GeoNode Data Maps About Search John Smith

Search : railways

2 found

Selected Objects

Add objects through the "checkboxes".

Set permissions

Filters Clear

TEXT

railways

KEYWORDS

TYPE

Map 1

Vector Layer 1

CATEGORIES

OWNERS

DATE

REGIONS

EXTENT

no image

OSM Railways

Railways extracted from OSM

John Smith 4 Jun 2019 7 0 0 View Map

railways

No abstract provided

John Smith 4 Jun 2019 9 0 0 Create a Map

page 1 of 1

Fig. 40: Results of searching made by name

- In the *Home* page section shown below are listed all the categories available in the GeoNode instance you are using. You can search for data by category by clicking on it.

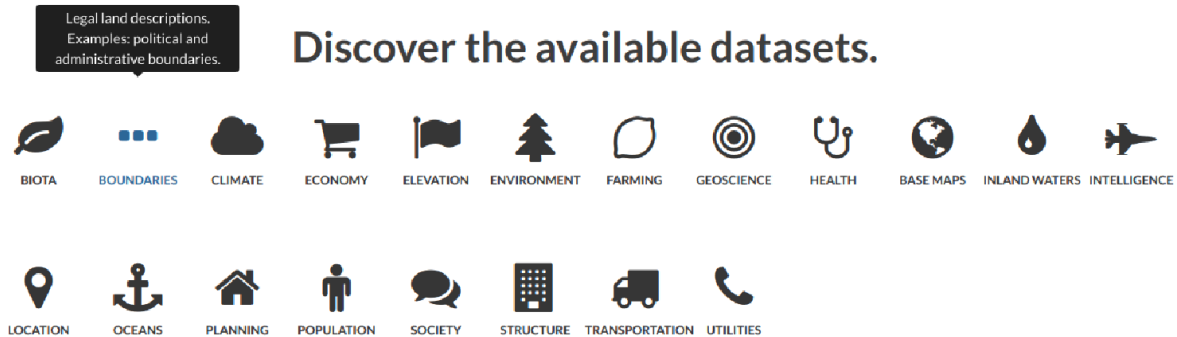


Fig. 41: Searching for datasets by category

In the *Search* page, data will be filtered by that category.

- The *Featured Datasets* section (see the picture below) shows you aggregate data about *Layers*, *Maps*, *Documents* and *Users*. You can trigger a search on layers by clicking on the *Layers* icon, the same happens for *Maps*, *Documents* and *Users*. The *Explore all datasets* drive you to the *Search* page with no filter on data types. In this section there are also useful quick links to add new resources: the *Add layers* drives you to the layer uploading page, the *Add documents* to the document uploading page and the *Create maps* guide you to the map creation.

For each data type GeoNode makes available an individual *Search* page, the next paragraphs will explain that in depth. For *Users* see [Viewing other users information](#).

Documents

When you are searching for *Documents* you can:

- use the *Documents* quick link of the *Featured Datasets* section as described above
- click on the *Documents* link of the *Data* menu in the navigation bar

The *Documents* search page looks like the generic one but only *Document* is considered as data type. You can filter documents by CATEGORIES, as in the example below, or by TEXT, KEYWORDS and so on. You can also use more than one filter at the same time.

Layers

To find *Layers* you can:


- use the *Layers* quick link of the *Featured Datasets*
- click on the *Layers* link of the *Data* menu in the navigation bar

In the *Layers* search page only *Layer* will be considered as data type. You can set one or more filter to refine the search. In the example below the layers have been filtered by EXTENT and CATEGORIES.

The screenshot shows the GeoNode web interface. At the top is a dark navigation bar with the GeoNode logo, links for Data, Maps, and About, a search bar, and a user profile for John Smith. Below the navigation bar, the page is titled "Search :". On the left side, there is a sidebar with various filter options: "Selected Objects" (with instructions to add objects through checkboxes and a "Set permissions" button), "Filters" (with a "Clear" button), and several filter categories: "TEXT", "KEYWORDS", "TYPE" (with a "Vector Layer" filter), "CATEGORIES" (with "Boundaries" selected and circled in red), "OWNERS", "DATE", "REGIONS", and "EXTENT". The main content area shows "1 found" results. The first result is a map of Italy with the title "BOUNDARIES" circled in red, followed by "Com2016_WGS84_g" and the description "Administrative boundaries of Italian municipalities". Below the title, it shows the user "John Smith", the date "5 Jun 2019", and zero views, shares, and stars. A "Create a Map" button is also present. At the bottom right of the results area, there is a pagination control showing "page 1 of 1".

Fig. 42: Results of searching made by category


Featured Datasets



21 Layers

Click to search for geospatial data published by other users, organizations and public sources. Download data in standard formats.


[Add layers »](#)



6 Maps

Data is available for browsing, aggregating and styling to generate maps which can be saved, downloaded, shared publicly or restricted to specify users only.


[Create maps »](#)



1 Document

As for the layers and maps GeoNode allows to publish tabular and text data, manage their metadata and associated documents.

[Add documents »](#)



208 Users

Geonode allows registered users to easily upload geospatial data and various documents in several formats.

[See users »](#)

[Explore all datasets](#)

Fig. 43: *Featured Datasets*

GeoNode Data ▾ Maps ▾ About ▾

Search

- Layers
- Documents
- Remote Services
- Upload Layer
- Create Layer
- Upload Document

Fig. 44: *Link for Documents*

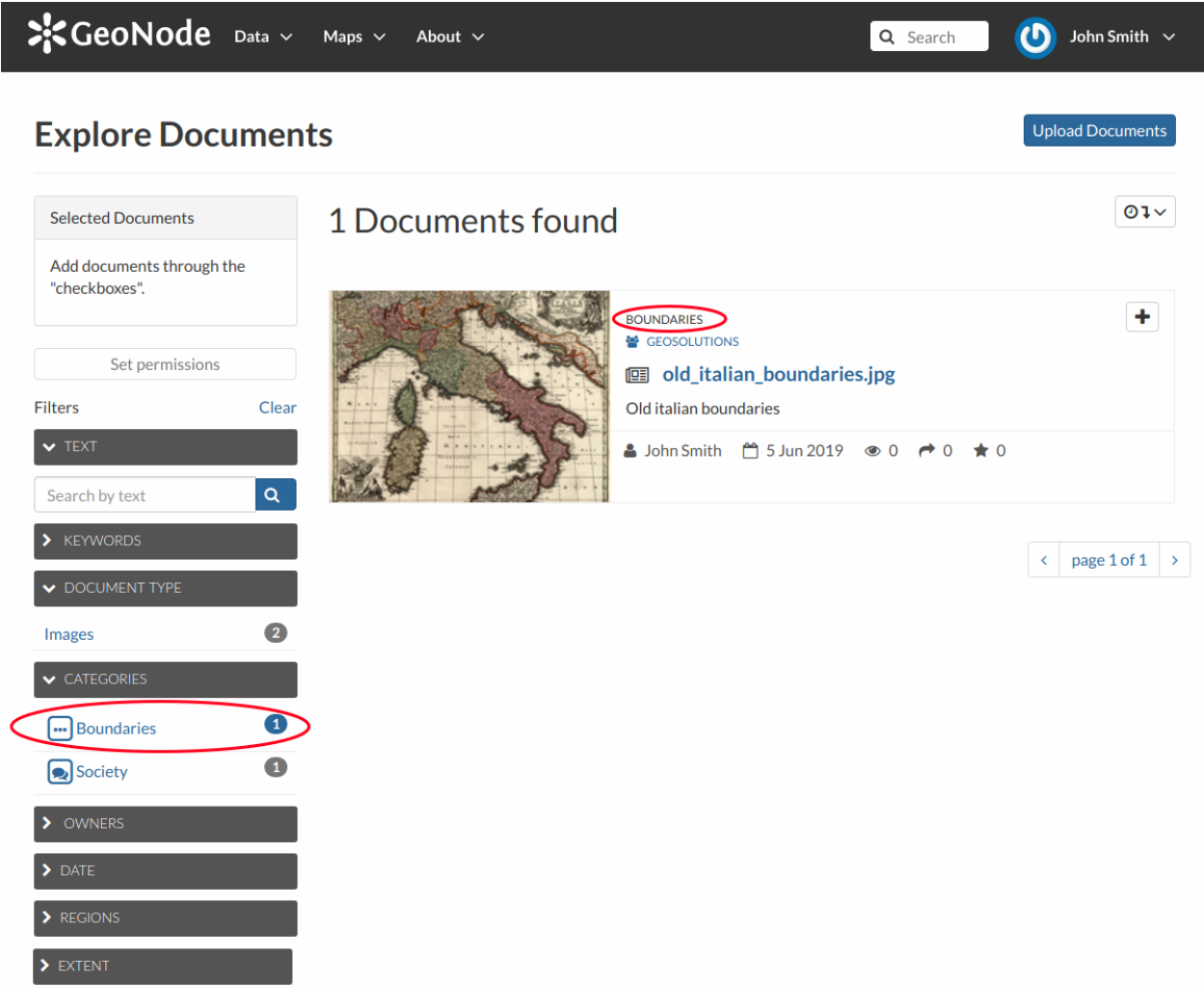


Fig. 45: Documents filtered by categories

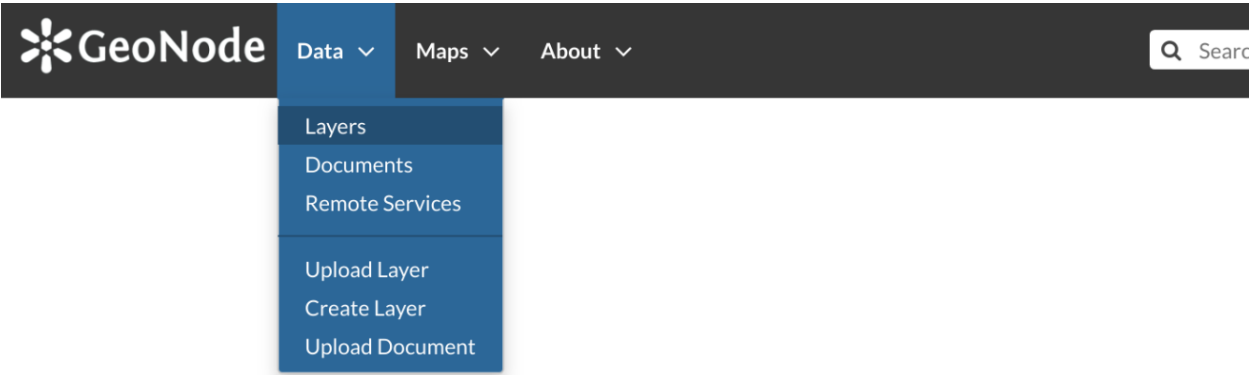


Fig. 46: Link for Layers

Fig. 47: Layers filtered by extent

Maps

If you are searching for *Maps* you can:

- use the *Maps* quick link of the *Featured Datasets* section as described above
- click on the *Explore Maps* link of the *Maps* menu in the navigation bar

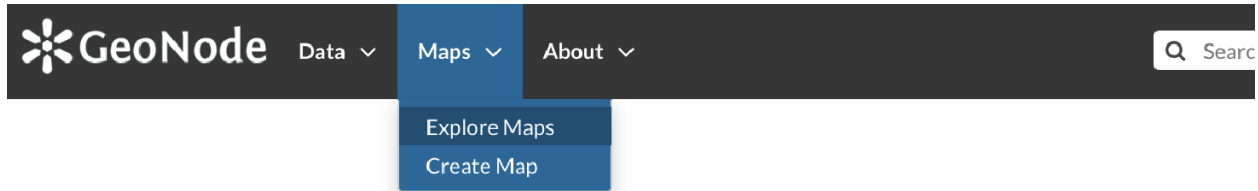


Fig. 48: *Link for Maps*

As seen for the other data types, the *Maps* search page allows you to filter your maps by a combination of criteria. The example below shows maps filtered by REGIONS.

Fig. 49: *Maps filtered by regions*

1.1.4 Managing Documents

In this section all the aspects concerning *Documents* will be discussed.

You will learn how to upload a document and how to inspect its metadata and details. All the editing tools will be also explained.

Uploading Documents

GeoNode allows to share reports, conceptual notes, posters, spreadsheets, etc. A wide range of documents files can be hosted on the platform, including text files (.doc, .docx, .txt, .odt), spreadsheets (.xls, .xlsx, .ods), presentations (.ppt, .pptx, .odp), images (.gif, .jpg, .png, .tif, .tiff), PDF, zip files (.rar, .zip, .gz), SLD, XML or QML files.

Warning: Only authenticated users can upload data into GeoNode.

Documents uploading is accessible from two positions:

- the *Upload Documents* button of the *Documents Search* page (see *Documents*)
- the *Upload Document* link of the *Data* menu in the navigation bar

The *Document Upload* page looks like the one shown in the picture below.

In order to upload a document:

1. select a file from your disk or enter a URL address if the document is stored on the internet
2. insert the title of the document
3. select one or more published resources the document can be linked to (optional)

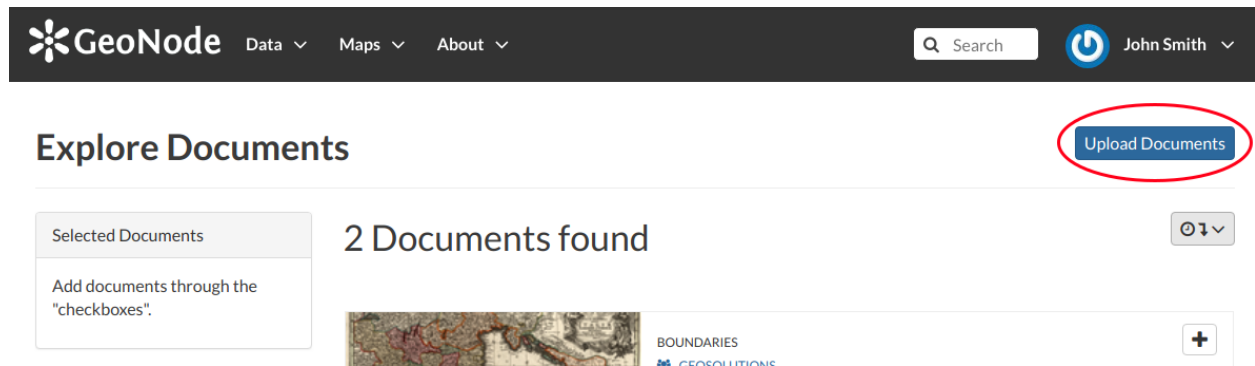


Fig. 50: Documents Upload button

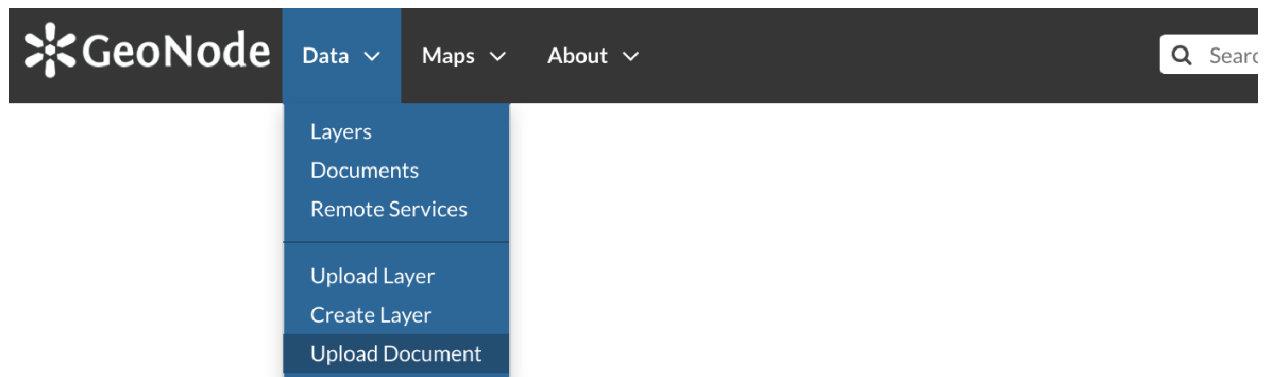


Fig. 51: Document Upload link

Fig. 52: Document Upload page

4. click the red *Upload* button

At the end of the uploading process you will be driven to the *Metadata* page to fill out other information about the document. See the next section to know more about that.

Filling the Document Metadata

Metadata contains all the information related to the document: they are its ID card. They provide essential information for its identification and its comprehension. Metadata also make the document more easily retrievable through search by other users.

Editing a document's metadata is done in three steps (*Basic Metadata*, *Location and Licenses*, *Optional Metadata*). The first two steps are mandatory (no documents will be published if the required information are not provided) whereas the last one is optional.

1. On the **Basic Metadata** page, the essential information that has to be filled is:
 - The *Title* of the document, which should be clear and understandable;
 - The *Resources* the document should be linked to;
 - An *Abstract* on the document;
 - The *Creation/Publication/Revision* dates which define the time period that is covered by the document;
 - The *Keywords*, which should be chosen within the available list. The contributor search for available keywords by clicking on the searching bar, or on the folder logo representing, or by entering the first letters of the desired word. Key-words should be relevant to the imported document;

- The *Category* in which the document belongs;
- The *Group* to which the document is linked.

Metadata for My New Document

Completteness
Check Schema mandatory fields
46 %

Edit Settings

Mandatory Mandatory Optional

1
Basic Metadata

2
Location and Licenses

3
Optional Metadata

Thumbnail
no image
Choose file

Title
My New Document
Link to
Select an option
Abstract
File Edit View Insert Format Tools
Table Help
No abstract provided
3 WORDS POWERED BY TINY


Free-text Keywords
Date type
Publication
Date
2020-11-
Category
Group

Update Next >>

Fig. 53: Document Basic Metadata

Once all the fields are filled, click on the blue button *Next >>* in the bottom right corner of the page.

Note: When a document is linked to some resources, you can see that link on the *Resource Page*.


[Data](#)
[Maps](#)
[About](#)

John Smith


[Download Layer](#)
[Metadata Detail](#)
[Editing Tools](#)
[View Layer](#)
[Download Metadata](#)

Legend

A dark orange polygon style

- dark orange polygon

Maps using this layer

This layer is not currently used in any maps.

Create a map using this layer

Click the button below to generate a new map based on this layer.

[Create a Map](#)

Add the layer to an existing map

Click the button below to add the layer to the selected map.

[Add to Map](#)

Documents related to this layer

List of documents related to this layer:

- [old_italian_boundaries.jpg](#)

Styles

The following styles are associated with this layer. Choose a style to view it in the preview map.

- (default style) A dark orange polygon style

Refresh Attributes and Statistics of this layer

Click the button below to allow GeoNode refreshing the list of available Layer Attributes. If the option 'WPS_ENABLED' has been also set on the backend, it will recalculate their statistics too.

[Refresh Attributes and Statistics](#)

Clear the Server Cache of this layer

Click the button below to wipe the tile-cache of this layer.

[Empty Tiled Layer Cache](#)

[Info](#)
[Attributes](#)
[Share](#)
[Ratings](#)
[Comments](#)
[Favorite](#)

Title Com2016_WGS84_g

License Not Specified

Abstract No abstract provided

Publication Date June 25, 2019, 5:28 a.m.

Type Vector Data

Keywords Com2016_WGS84_g, features

Regions Global

Owner johnsmith

[More info](#)

[Layer WMS GetCapabilities document](#)

Fig. 54: Documents linked to a Layer

It will be also visible on the [Document Information](#) page.

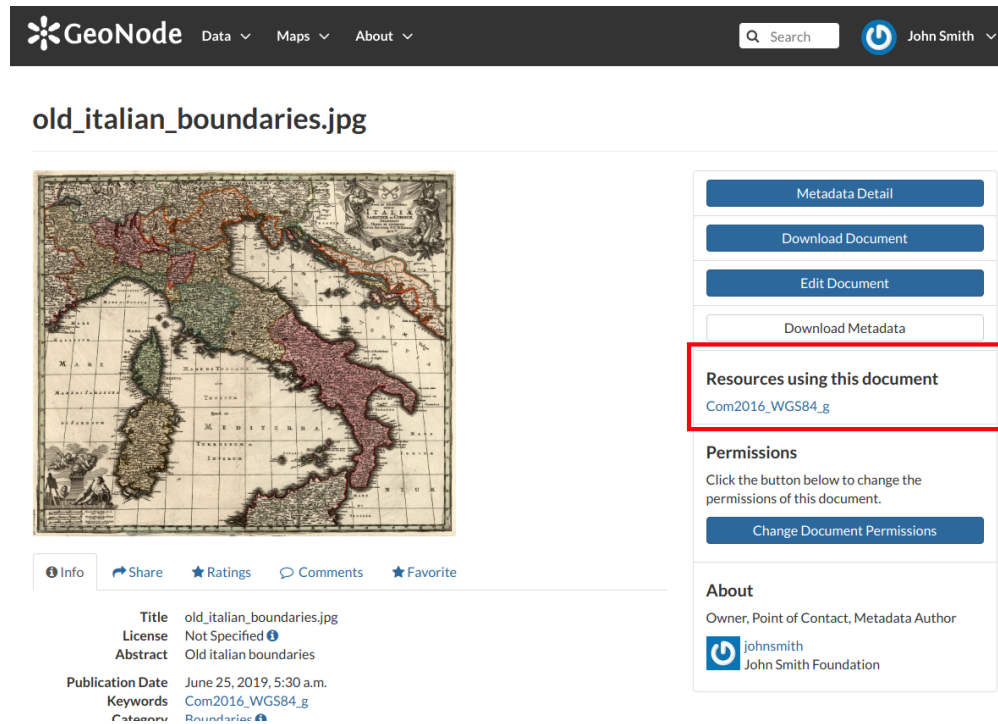


Fig. 55: Resources linked to a Document

2. On the **Location and Licenses** page, the following information should be filled:

- The *Language* of the document;
- The *Regions*, which informs on the spatial extent covered by the document. Proposed extents cover the following scales: global, continental, regional, national;
- The *Data Quality statement* (general explanation of the data producer's knowledge about the lineage of a dataset);
- Potential *Restrictions* to sharing the document should be provided in the Restrictions box.

Click on the blue button *Next >>* to go ahead to the next step.

3. On the **Optional Metadata** page, complementary information can be added:

- The *Edition* to indicate the reference or the source of the document;
- The *Purpose* of the document and its objectives;
- Any *Supplemental information* that can provide a better understanding of the uploaded document;
- The *Maintenance frequency* of the document;
- The *Spatial representation type* used.

Responsible Parties, *Owner* and *Permissions* are listed on the right side of the page, you can edit them.

If all the mandatory information is filled out the document can be published, if not the *Completeness* progress bar warns you that something is missing.

Click on the blue button *Update* to save information on the system.

Metadata for My New Document

Completeness

✖Check Schema mandatory fields

46 %

Edit

Settings

Mandatory

Mandatory

Optional

1

2

3

Basic Metadata

Location and Licenses

Optional Metadata

Language

English

License

Not Specified

DOI

* Field declared Mandatory by the Metadata Schema

Attribution

* Field declared Mandatory by the Metadata Schema

Regions

✖ Global

Data quality statement

File Edit View Insert Format Tools

Table Help

↶ ↷ B I U S ...

P 0 WORDS POWERED BY TINY

* Field declared Mandatory by the Metadata Schema

Restrictions

* Field declared Mandatory by the Metadata Schema

Other constraints

File Edit View Insert Format Tools

Table Help

↶ ↷ B I U S ...

P 0 WORDS POWERED BY TINY

<< Back

Update

Next >>

Fig. 56: Document Location and Licenses

Metadata for My New Document

Completeness

✖ Check Schema mandatory fields

46 %

Edit

Settings

Mandatory

Mandatory

Optional

1

2

3

Basic Metadata

Location and Licenses

Optional Metadata

Other, Optional, Metadata

temporal extent start

temporal extent end

Maintenance frequency

Spatial representation type

Responsible Parties

Point of Contact

Responsible and Permissions

Owner

Metadata Author

Edition

Purpose

File Edit View Insert Format Tools

Table Help

↶ ↷ B I U S ...

0 WORDS POWERED BY TINY

Supplemental information

File Edit View Insert Format Tools

Table Help


↶ ↷ B I U S ...


No information provided

Fig. 57: Document Optional Metadata

Document Information

From the *Documents Search Page* (see [Documents](#)) you can select the document you are interested in and see some basic information about it. You can access the document details page by clicking on its name. That page looks like the one shown in the picture below.


[Data](#) [Maps](#) [About](#)

 John Smith


[Metadata Detail](#)
[Download Document](#)
[Edit Document](#)
[Download Metadata](#)
Resources using this document
[Com2016_WGS84_g](#)
Permissions
 Click the button below to change the permissions of this document.
[Change Document Permissions](#)
About
 Owner, Point of Contact, Metadata Author
 johnsmith
 John Smith Foundation

Info
 Share
 Ratings
 Comments
 Favorite

Title	Old italian boundaries
License	Not Specified ⓘ
Abstract	Old italian boundaries
Publication Date	June 5, 2019, 4:51 a.m.
Keywords	Com2016_WGS84_g
Category	Boundaries ⓘ
Regions	Global
Owner	johnsmith
Group	Geosolutions

More info -

Restrictions	exclusive right to the publication, production, or sale of the rights to a literary, dramatic, musical, or artistic work, or to the use of a commercial print or label, granted by law for a specified period of time to an author, composer, artist, distributor
Language	English
Data Quality	good
Supplemental Information	No information provided

Fig. 58: *Document Information page*

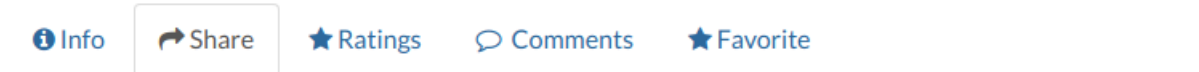
On the page of a document, the resource is either directly displayed on the page or accessible by clicking on the link provided under the title.

Exploring the Tabs Sections

There is a *Tab Section* below the document, where you can first view *Info* about the document.

The **Info Tab** section shows the document metadata such as its title, abstract, date of publication etc. The metadata also indicates the user who is responsible for uploading and managing this content, as well as the group to which it is linked.

The **Share Tab** provides the social media links for the document to share. There is also a link to share the document through email.

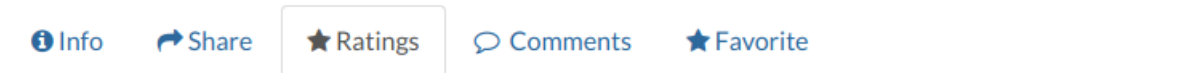


Share This Document

- [Email](#)
- [Facebook](#)
- [Twitter](#)
- [Google +](#)

Fig. 59: Document Sharing

You can **Rate** the document through the *Ratings system*.



Rate this document



Average Rating



Fig. 60: Rate the Document

In the **Comments Tab** section you can post your comment. Click on *Add Comment*, insert your comment and click *Submit Comment* to post it.

Your comment will be added next to the last already existing comment. If you want to remove it click on the red *Delete* button.

If you want this document in your *Favorites* (see [Updating the Profile](#)), open the **Favorite Tab** and click on *Add to Favorites*.

GeoNode also supports the *EXIF* (*EXchangeable Image Format*) for *jpeg* and *tiff* image documents. The *EXIF* means that additional information (metadata) are stored within the image, so GeoNode allows you to see those information in the **Exif Tab**.

GeoNode Data Search John Smith

Old italian bounda

Comment

Great document!

Cancel Submit Comment

Metadata Detail

Download Document

Edit Document

Download Metadata

es using this document

Com2016_WGS84_g

Permissions

Click the button below to change the permissions of this document.

Change Document Permissions

About

Owner, Point of Contact, Metadata Author

johnsmith
John Smith Foundation

Info Share Ratings Comments Favorite

Comments (1 total)

This is an interesting document!
By mariorossi on Jun 6, 2019

Add Comment

Fig. 61: Document Comments

Info Share Ratings Comments Favorite

Comments (2 total)

Add Comment

This is an interesting document!
By mariorossi on Jun 6, 2019

Great document!
By johnsmith on Jun 6, 2019

Delete

Fig. 62: Your Comment

[Info](#) [Share](#) [★ Ratings](#) [Comments](#) [★ Favorite](#)

Favorite

Add to Favorites

Go to Favorites

Fig. 63: Your Favorite Comment


GeoNode

[Data](#) [Maps](#) [About](#)

Search

John Smith

exif_image.jpg



[Info](#) [Share](#) [★ Ratings](#) [Comments](#) [Exif](#) [★ Favorite](#)

Width640
Height480
MakeNIKON
ModelCOOLPIX P6000
DateNov. 1, 2008, 9:15 p.m.
Latitude43.464455
Longitude11.8814783333
FlashTrue
Speed Rating64

Metadata Detail

Download Document

Edit Document

Download Metadata

Resources using this document

This document is not related to any maps or layers

Permissions

Click the button below to change the permissions of this document.

Change Document Permissions

About

Owner, Point of Contact, Metadata Author

johnsmith

John Smith Foundation

Fig. 64: The EXIF tab

1.1. GeoNode Users Guide

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The Tools Section

On the right side of the *Document Page* you can see other useful information such as the links to the resources linked to the document, the document *Owner*, the *Point of Contact* and the *Metadata Author*.

In the same section of the *Document Page* you can find the following useful tool:

- *Metadata Detail* to explore in detail the document metadata (see the next paragraph)
- *Download Document* to download the document
- *Edit Document* to change the document metadata, replace the file etc (see [Document Editing](#))
- *Download Metadata* to download the whole set of metadata in various formats
- *Change Document Permissions* to assign permissions on the document to users and groups (see [Changing the Document Permissions](#)).

Exploring Metadata Details

When clicking on the *Metadata Detail* button the *Metadata Details Page* will open.

It displays the whole set of available metadata about the document.

Metadata are grouped in order to show the following types of information:

- *Identification* to uniquely identify the document
- *Owner*, the user who own the document
- *Information*, the identification image, the Spatial Extent, Projection System and so on
- *Features*, Restrictions, Language and so on
- *Contact Points*, the user available to have a contact
- *References*, various links to the resource information
- *Metadata Author*, the metadata author information

Document Editing

The *Document Information* page makes available useful tools for document editing. Click on the *Edit Document* button to see what you can do to make changes. The picture below shows you the *Editing Panel* that will appear on the screen.

You can *Replace* the document file with another one by clicking on *Replace*. It will drive you to the *Document Upload* page (see [Uploading Documents](#)) where you can upload a new file.

The *Remove* button allows you to delete the document. You will have to confirm that choice.

The *Editing Panel* shows you also some links for editing the metadata and the thumbnail. These actions will be explained more in depth in the next paragraphs.

[Metadata Detail](#)

[Download Document](#)

[Edit Document](#)

[Download Metadata](#)

Resources using this document

[Com2016_WGS84_g](#)

Permissions

Click the button below to change the permissions of this document.

[Change Document Permissions](#)

About

Owner, Point of Contact, Metadata Author


 **johnsmith**
John Smith Foundation

Fig. 65: Document useful tool

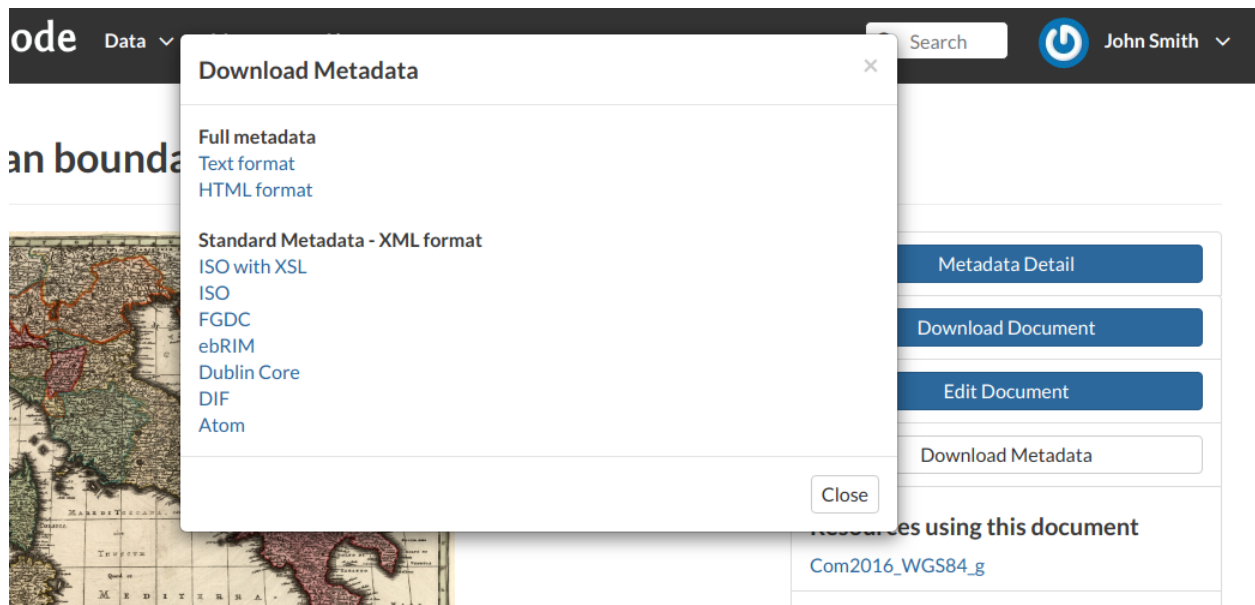


Fig. 66: Document Metadata download

Setting the Document Thumbnail

From the *Editing Panel*, it is also possible to *Set the Thumbnail* of the document. Click on *Set* to open the *Thumbnail Uploading* page and choose the image that will illustrate your document. You can either drag and drop it in the *Drop files here* box or selecting from your folders by clicking on *Choose Files*. Once this is done, click on the red button *Upload files*. If the thumbnail has been successfully uploaded you can see it by coming back to the document list. Click on the *Explore Documents* button to check that.

If no errors occur the following message will be shown.


Editing the Document Metadata

You can edit the metadata of your document through the buttons shown in the red rectangle in below picture.

The *Wizard* button drive you to the wizard described in the *Filling the Document Metadata* section. The *Advanced Edit* button takes you to a big form where all the available metadata of the document can be edited.

Some information are mandatory such as the *Title* or the *Category* the document belongs to, some others are optional.


In the example shown in the picture above, the information inside the red rectangles have been changed. To save the changes click on *Update*, you will be redirected to the document page.



[Data](#) [Maps](#) [About](#)

Q

Search

 John Smith

Metadata : Old italian boundaries

Return to Document

Identification

Title

Abstract

License

Publication Date

Keywords

Category

Regions

Approved

Published

Featured

Group

Old italian boundaries

Old italian boundaries

Not Specified

June 5, 2019, 4:51 a.m.

Com2016_WGS84_g

Boundaries

Global

Yes

Yes

No

Geosolutions

Owner

Name

email

Position

Organization

Location

Voice

Fax

John Smith (johnsmith)

john.smith@mail.com

CEO and Founder

John Smith Foundation


John Smith Avenue 12345 John Smith City John Smith District ZAF

123456789

987654321

Information

Identification Image



Spatial Extent

Projection System

Extension x0

Extension x1

Extension y0

Extension y1

EPSG:4326

313279.2514000000000000

1312016.1506000000000000

3933846.2156000000000000

5220292.2922000000000000

Features

Restrictions

Language

Data Quality

Supplemental Information

exclusive right to the publication, production, or sale of the rights to a literary, dramatic, musical, or artistic work, or to the use of a commercial print or label, granted by law for a specified period of time to an author, composer, artist, distributor

English

good

No information provided

Contact Points

Name

email

Position

Organization

Location

Voice

Fax

John Smith (johnsmith)

john.smith@mail.com

CEO and Founder

John Smith Foundation

John Smith Avenue 12345 John Smith City John Smith District ZAF

123456789

987654321

References

Link Online

Metadata Page

Online Link

/documents/37

/documents/37/metadata_detail

/documents/37/download

Hosted Document

Thumbnail

Old italian boundaries.jpg

Old italian boundaries.png

Metadata Author

Name

email

Position

Organization

Location

Voice

Fax

John Smith (johnsmith)

john.smith@mail.com

CEO and Founder

John Smith Foundation

John Smith Avenue 12345 John Smith City John Smith District ZAF

123456789

987654321

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Fig. 67: Document Metadata Details page

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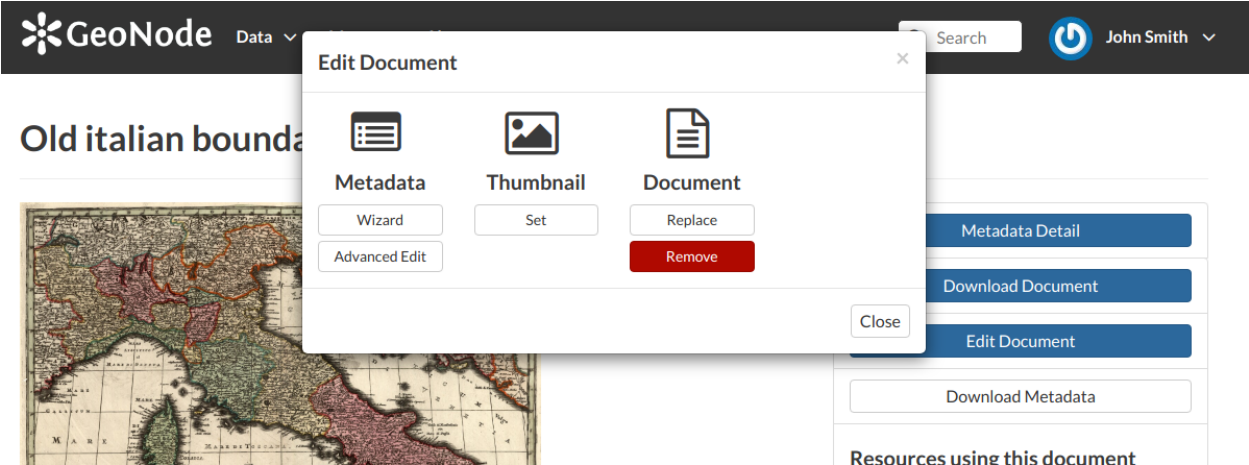


Fig. 68: Document Editing panel

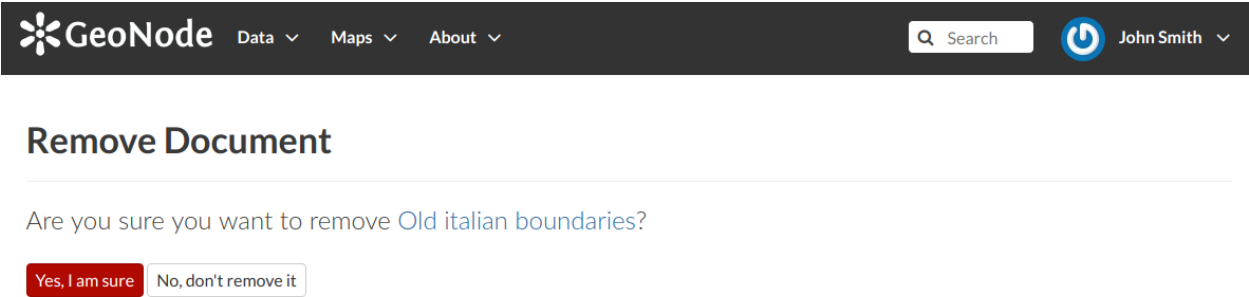




Fig. 69: Document Removal confirmation

 [Data](#) [Maps](#) [About](#)

 [John Smith](#)


Drop files here

or select them one by one:
[Choose Files](#)

Files to be uploaded
420884656472
JPEG

420884656472.jpg [Remove](#)

[Clear](#) [Upload files](#)

Permissions

Who can view it?
☒ Anyone
The following users:

The following groups:

Who can download it?

Who can change metadata for it?

Who can manage it? (update, delete, change permissions, publish/unpublish it)

Fig. 70: Upload Document's Thumbnail

Your document was successfully updated

[Document Info](#) [Edit Metadata](#)

Fig. 71: Uploading success

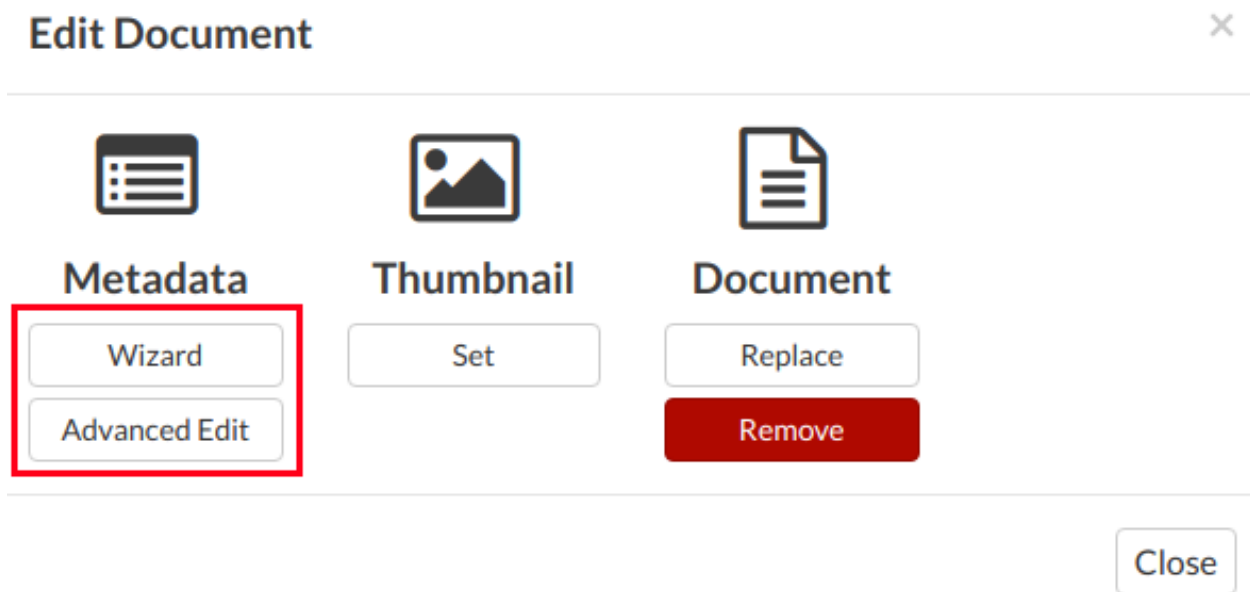


Fig. 72: Editing Metadata

Changing the Document Permissions

GeoNode encourages to publicly, share and make available for download information uploaded on the platform. By default, anyone can see and download a document. However, the document responsible can choose to limit access to the document to some contributors and/or groups.

Through the button shown in the picture below it is possible to manage the document permissions.

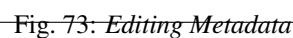
The *Change Document Permissions* button on the right side of the document page allows to set up who can:


- View the document;
- Download it;
- Edit its metadata;
- Manage it (update, delete, change permissions, publish/unpublish).

See an example in the picture below.

Usually that editing of metadata and the management of a document are in charge of the responsible of the document, i.e. the contributor who uploaded it and who has those permissions by default.

Once the permissions are set, click *Apply changes* to save them.






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Q

Search



John Smith

Nouvelle Carte de l'Italie



Info

Share

Ratings

Comments

Favorite

Title

License

Abstract

Publication Date

Keywords

Category

Regions

Owner

Nouvelle Carte de l'Italie

Not Specified

A map from the Moll's map collection

June 5, 2019, 4:51 a.m.

Com2016_WGS84_g

Boundaries

Global , Italy

johnsmith

Metadata Detail

Download Document

Edit Document

Download Metadata

Resources using this document

Com2016_WGS84_g

Permissions

Click the button below to change the permissions of this document.

Change Document Permissions

About

Owner, Point of Contact, Metadata Author


johnsmith
John Smith Foundation

Fig. 74: The button to change permissions

1.1. GeoNode Users Guide

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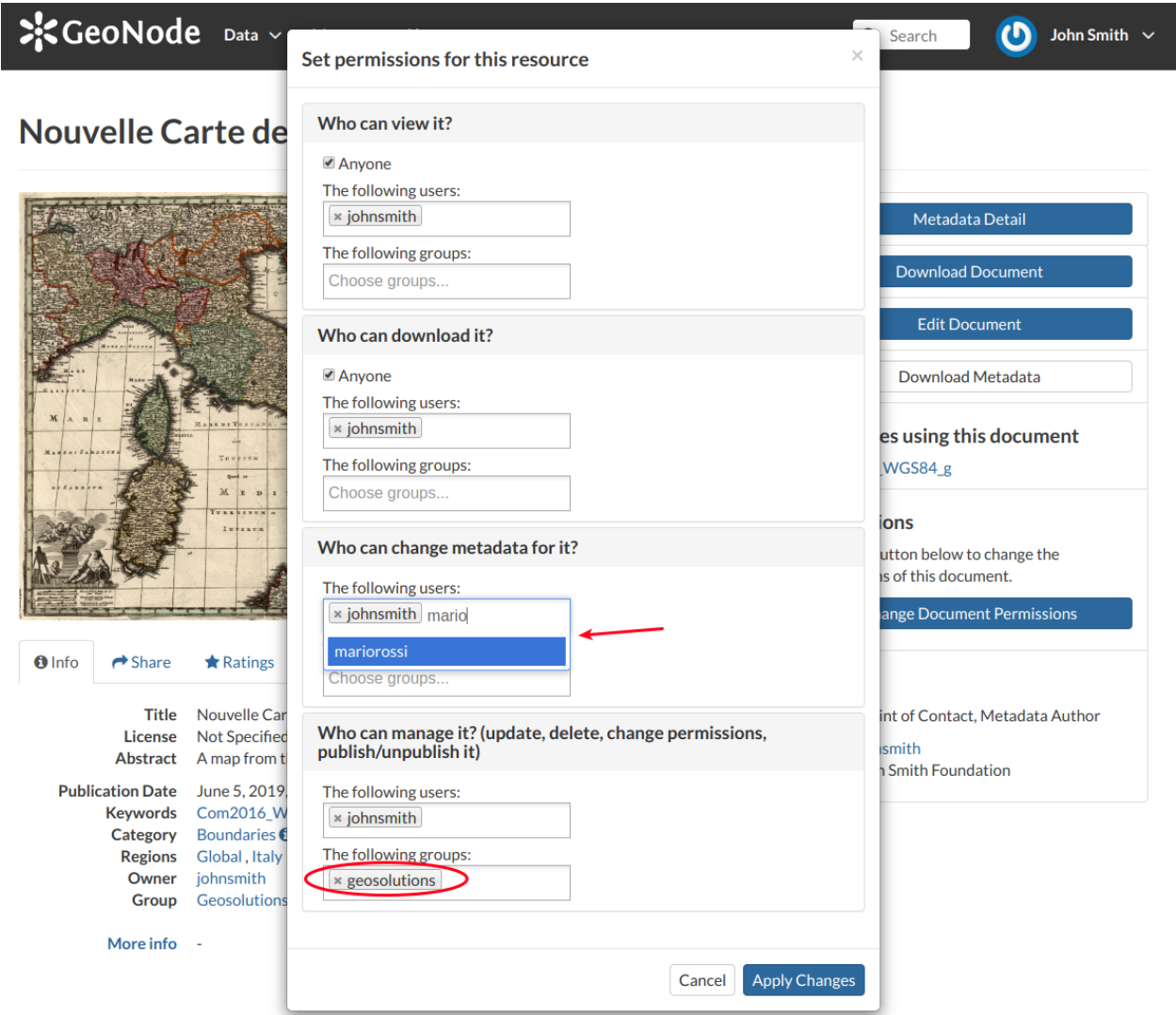


Fig. 75: Changing the Document permissions

1.1.5 Managing Layers

Layers are published resources representing raster or vector spatial data sources. Layers can also be associated with metadata, ratings, and comments.

In this section, you will learn how to create a new layer by uploading a local data set, add layer info, change the style of the layer, and share the results.

Layers Uploading

The most important resource type in GeoNode is the *Layer*. A layer represents spatial information so it can be displayed inside a map.

To better understand what we are talking about let's upload your first layer.

The *Layer Uploading* page can be reached from the *Upload Layer* link of the *Data* menu in the navigation bar.

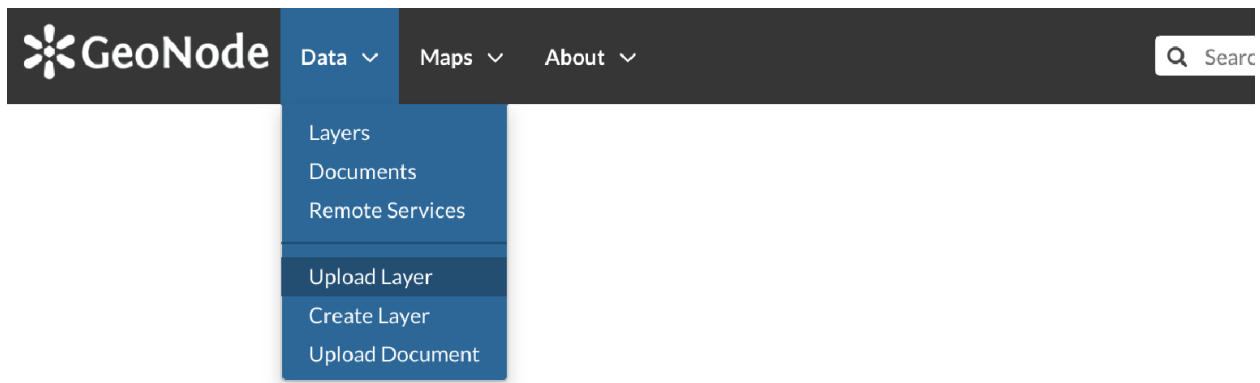


Fig. 76: Link for Layers Uploading

There is also an *Upload Layers* button in the *Layers Page*.

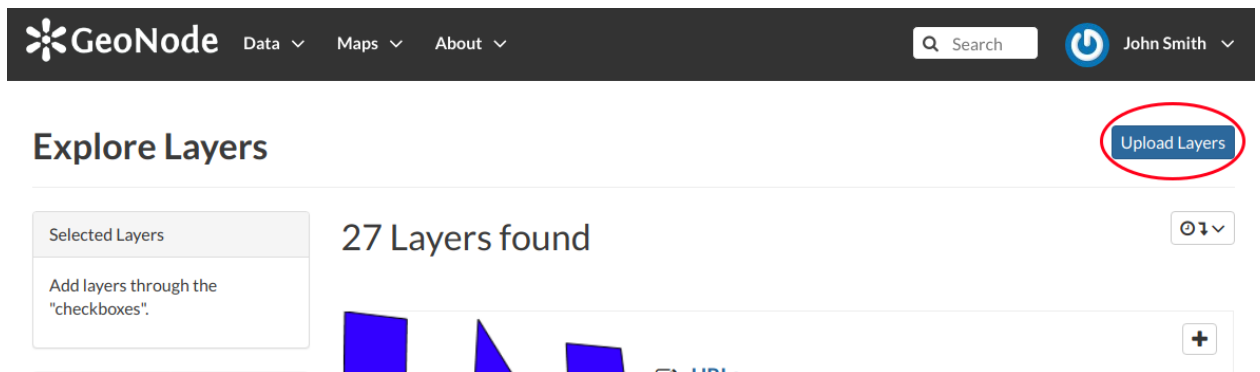


Fig. 77: Button for Layers Uploading

The *Layers Uploading* page looks like the one in the picture below.

Through the *Choose Files* button you can select files from your disk, make sure they are valid raster or vector spatial data. You can also change the default *Permissions* settings (see [Changing the Layer Permissions](#) for further information on how to set permissions).

Fig. 78: The Layers Uploading page

Select the *charset*, then click on *Upload files* to start the process or click *Clear* to remove all the loaded files from the page.

Fig. 79: Shapefile Uploading

In this example the `roads` ESRI Shapefile, with all its mandatory files (`.shp`, `.shx`, `.dbf` and `.prj`), has been chosen. A progress bar shows the operation made during the layer upload and alerts you when the process is over. When the process ends click the *Layer Info* to check the layer has been correctly uploaded.

Note: There are lot of free spatial dataset available in the Internet. In this example, an extract of the Berlin city center roads map from the [BBBike extracts](#) [OpenStreetMap](#) dataset has been used.

In the next paragraphs you will learn how to create a layer from scratch, how to set permissions, how to explore the layer properties and how to edit them.

Creating a Layer from scratch

An interesting tool that GeoNode makes available to you is the *Create Layer*. It allows you to create a new vector layer from scratch. The *Layer Creation Form* is reachable through the *Create Layer* link shown in the picture below.

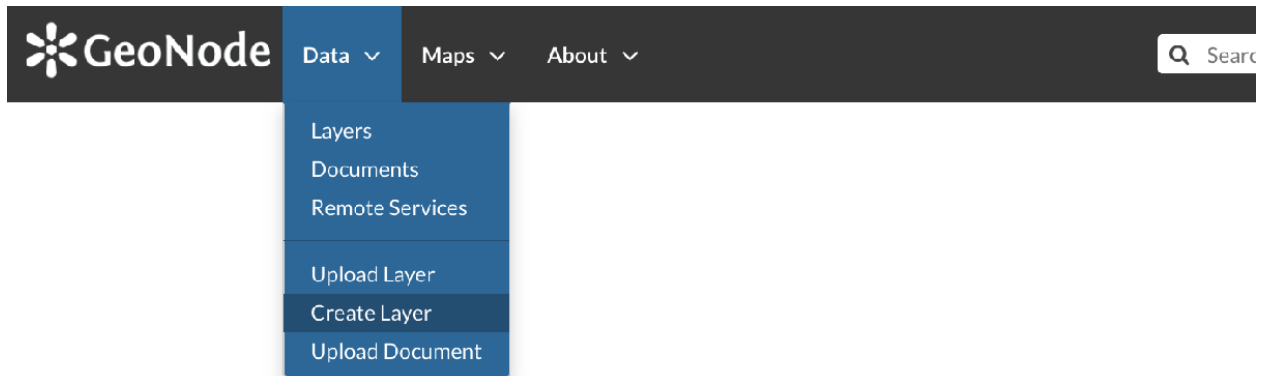


Fig. 80: *Create layer link*

In order to create the new Layer you have to fill out the required fields:

- *Name*
- *Title*
- *Geometry type*

Geometry type

 A screenshot of a web form's 'Geometry type' dropdown menu. The dropdown is open, showing a list of options: 'Points', 'Lines', and 'Polygons'. The 'Lines' option is currently selected and highlighted with a light blue background. The dropdown menu has a thin border and a small downward arrow on the right side of the top bar.

Fig. 81: *Geometry types*

Usually the layers features should have some *Attributes* that enrich the amount of information associated with each of them. Through the *Add Attribute* button you can add new attributes.

Fig. 82: *New Layer creation from scratch*

At this time you can also change the default *Permissions* settings, see [Changing the Layer Permissions](#) to learn how.

Once the form has been filled out, click on *Create*. You will be redirected to the *Layer Page* (see [Layer Information](#)). Now your Layer is created but is still empty, no features have been added yet. See the [Layer Editing](#) section to learn how to add new features.

Using Remote Services

In GeoNode you can add new layers not only by loading them from your disk but also using *Remote Services*. In this section you will learn how to add a new service and how to load resources in GeoNode through that.

Let’s try it!

Click on the *Remote Services* link of the *Data* menu in the navigation bar.

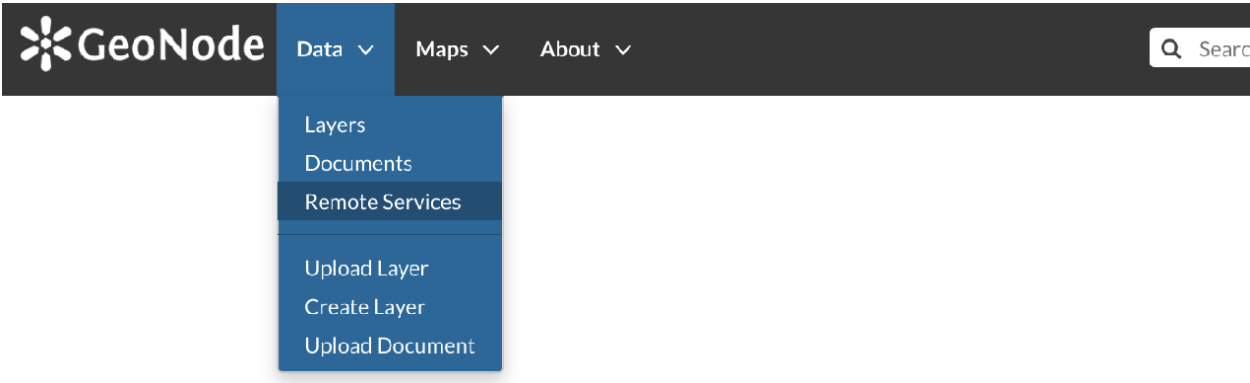


Fig. 83: Remote Services link

The page that opens will contain the list of the available services.

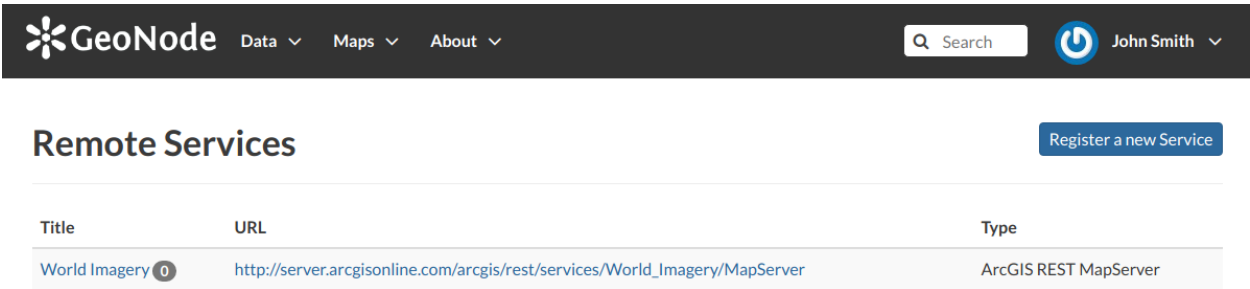


Fig. 84: Remote Services

To configure a new service:

- click on *Register a new Service*
- type the *Service URL*
- select the *Service Type*

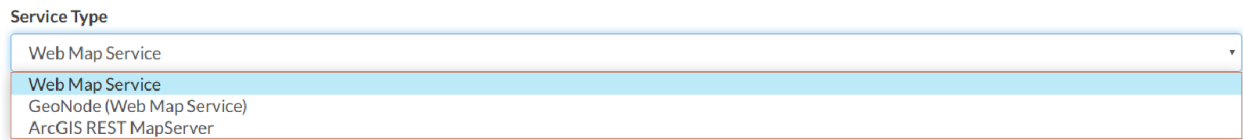


Fig. 85: Service Types

- click on *Create*

GeoNode supports three **types of remote services**:

- *Web Map Service*

Generic Web Map Service (WMS) based on a standard protocol for serving georeferenced map images over the Internet. These images are typically produced by a map server (like [GeoServer](#)) from data provided by one or more distributed geospatial databases. Common operations performed by a WMS service are: *GetCapabilities* (to retrieves metadata about the service, including supported operations and parameters, and a list of the available layers) and *GetMap* (to retrieves a map image for a specified area and content).

Note: Lots of WMS services are available on the internet, in this example we used the `https://demo.geo-solutions.it/geoserver/wms`.

- *GeoNode Web Map Service*

Generally a WMS is not directly invoked; client applications such as GIS-Desktop or WEB-GIS are used that provide the user with interactive controls. A GeoNode WMS automatically performs some operations and lets you to immediately retrieve resources.

Note: An example of GeoNode WMS is available at `http://dev.geonode.geo-solutions.it/geoserver/wms`.

- *ArcGIS REST MapServer*

This map service provides basic information about the map, including the layers that it contains, whether the map is cached or not, its spatial reference, initial and full extents, whether the service is allowed to export tiles and max tiles export count, etc. A set of operations that manage the state and contents of the service are allowed: Edit Service, Refresh, Update Tiles. The URL should follow this pattern: `https://<servicecatalog-url>/services/<serviceName>/MapServer`.

Note: Try the following service to better understand how it works: `https://sampleserver6.arcgisonline.com/arcgis/rest/services/USA/MapServer`.

Once the service has been configured, you can load the resources you are interested in through the *Import Resources* page where you will be automatically redirected to. Take a look at the gif below to see the whole process.

Fig. 86: A new Remote Service

From the page where the services are listed, it is possible to click on the *Title* of a service. It opens the *Service Details* page.

Each service has its own metadata such as the *Service Type*, the *URL*, an *Abstract*, some *Keywords* and the *Contact* user. You can edit those metadata through the form available from the *Edit Service Metadata* button of the *Service Details* page (see the picture below).

The screenshot shows the GeoNode interface. At the top is a dark navigation bar with the GeoNode logo, 'Data', 'Maps', and 'About' menus, a search bar, and a user profile for 'John Smith'. The main content area is divided into two columns. The left column displays the details for a 'GeoServer Web Map Service':

- Type:** Web Map Service
- URL:** <https://demo.geo-solutions.it/geoserver/wms>
- Abstract:** A compliant implementation of WMS plus most of the SLD extension (dynamic styling). Can also generate PDF, SVG, KML, GeoRSS
- Keywords:** GEOSERVER, WFS, WMS
- Contact:** johnsmith

Below this is a section titled 'Service Resources' with a sub-header '2'. It contains a table with two columns: 'Title' and 'Description'.

Title	Description
sfdem	No abstract provided
Regioni Italiane	No abstract provided

The right column is titled 'Manage' and contains three buttons: 'Edit Service Metadata', 'Import Service Resources', and 'Remove Service'.

Fig. 87: Remote Service metadata

Changing the Layer Permissions

When creating or uploading a new Layer you have to set who can view, download, edit and manage that Layer. By default only owners can edit and manage layers, anyone can view and download them.

In order to modify the Layer *Permissions* settings you have to click the *Change the Layer Permissions* button in the Layer page.


Through the *Permissions Settings Panel* you can add or remove permissions for users and groups. The picture below shows an example.


You can set the following types of permissions:

- *View* allows to view the layer;
- *Download* allows to download the layer;
- *Change Metadata* allows to change the layer metadata;
- *Edit Data* allows to change attributes and properties of the layers features;
- *Edit Style* allows to change the layer style;
- *Manage* allows to update, delete, change permissions, publish and unpublish the layer.


Warning: When assigning permissions to a group, all the group members will have those permissions. Be careful in case of editing permissions.

Click on *Apply Changes* to save these settings.


[Data](#)
[Maps](#)
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 John Smith

Italian Towers



[Info](#)
[Attributes](#)
[Share](#)
[Ratings](#)
[Comments](#)
[Favorite](#)

Title Italian Towers

License Not Specified

Abstract No abstract provided

Publication Date June 7, 2019, 4:03 a.m.

Type Vector Data

Keywords features , italian_towers

Category Environment

Regions Global

Owner johnsmith

[More info](#)

[Layer WMS GetCapabilities document](#)

[Download Layer](#)
[Metadata Detail](#)
[Editing Tools](#)
[View Layer](#)
[Download Metadata](#)

Legend

Default Point

- Red Square

Maps using this layer

This layer is not currently used in any maps.

Create a map using this layer

Click the button below to generate a new map based on this layer.

[Create a Map](#)

Add the layer to an existing map

Regioni Italiane Map

Click the button below to add the layer to the selected map.

[Add to Map](#)

Styles

The following styles are associated with this layer. Choose a style to view it in the preview map.

- (default style) Default Point

Refresh Attributes and Statistics of this layer

Click the button below to allow GeoNode refreshing the list of available Layer Attributes. If the option 'WPS_ENABLED' has been also set on the backend, it will recalculate their statistics too.

[Refresh Attributes and Statistics](#)

Clear the Server Cache of this layer

Click the button below to wipe the tile-cache of this layer.

[Empty Tiled-Layer Cache](#)


Permissions

Click the button below to change the permissions of this layer.

[Change Layer Permissions](#)

About

Owner, Point of Contact, Metadata Author

 johnsmith
John Smith Foundation

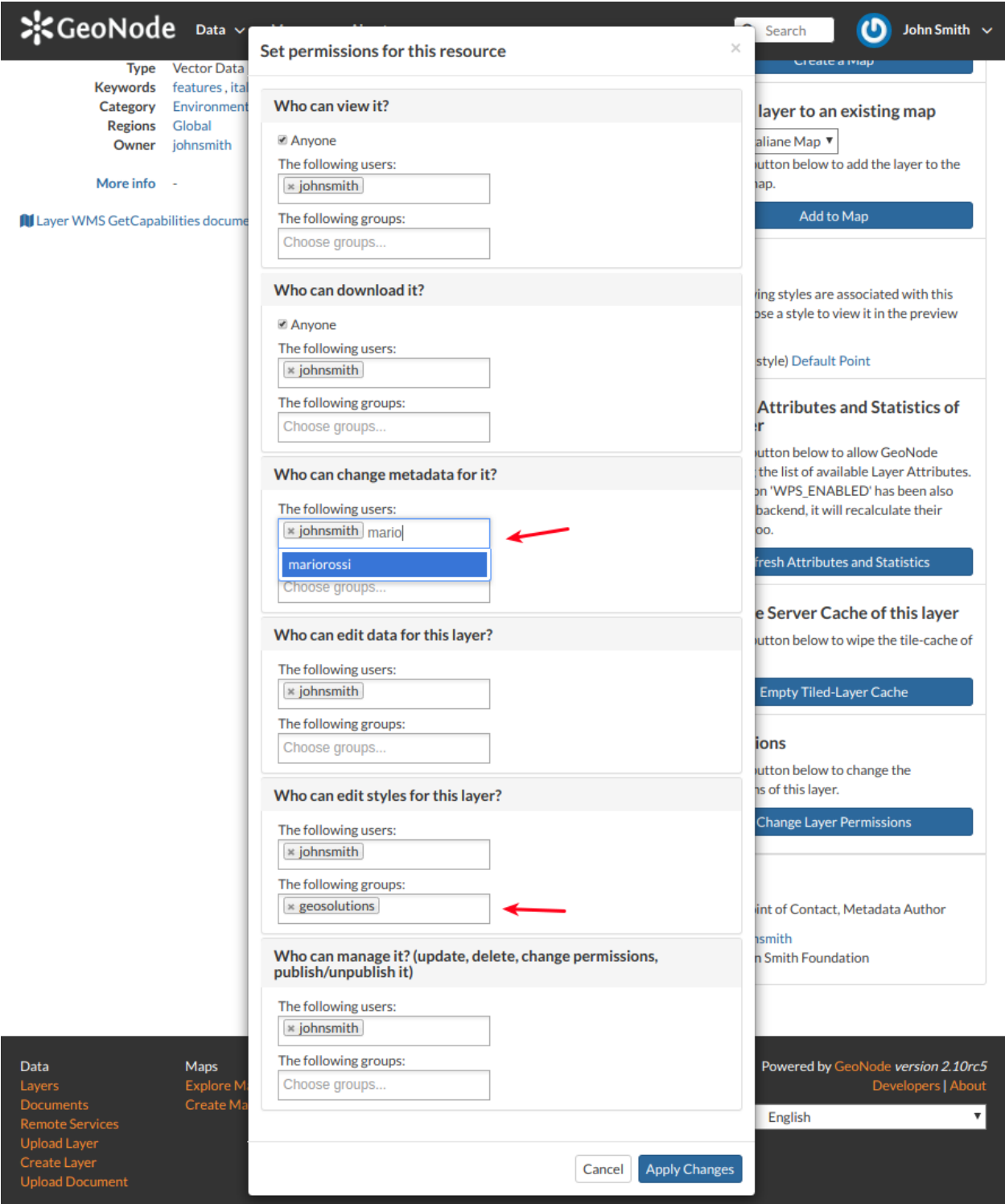


Fig. 89: Layer Permissions settings for users and groups

Layer Information

In this section you will learn more about layers. In the [Layers](#) section we explain how to find layers, now we want to go more in depth showing you how to explore detailed information about that.

From the layers list page, click on the layer you are interested in. The *Layer Page* will open.

As shown in the picture above, the *Layer Page* is divided into three main sections:

1. the *Layer Preview* section, under the title
2. the *Tabs* section, under the layer preview
3. the *Tools* section, on the right side of the page

Layer Preview

The *Layer Preview* shows the layer in a map with very basic functionalities:

- the *Base Map Switcher* that allows you to change the base map;
- the *Zoom in/out* tool to enlarge and decrease the view;
- the *Zoom to max extent* tool for the zoom to fit the layer size;
- the *Query Objects* tool to retrieve information about the map objects by clicking on the map;
- the *Print* tool to print the preview.

The GeoNode map viewer is [MapStore](#) based, see the [MapStore Documentation](#) to learn more.


Tabs Sections


The *Layer Page* shows you some tabs sections containing different information about the layer:

- The tab *Info* is active by default. This tab section shows some layer metadata such as its title, the abstract, date of publication etc. The metadata also indicates the layer owner, what are the topic categories the layer belongs to and which regions are affected.
- The *Attributes* tab shows the data structure behind the layer. All the attributes are listed and for each of them some statistics (e.g. the range of values) are estimated (if possible).
- The *Share* tab provides the links for the layer to share through social media or email.
- You can *Rate* the layer through the *Rating system*.
- In the *Comments* tab section you can post your comment. Click on *Add Comment*, insert your comment and click *Submit Comment* to post it.

Your comment will be added next to the last already existing comment. If you want to remove it click on the red *Delete* button.

- If you want this layer in your *Favorites* (see [Updating the Profile](#)), open the *Favorite* tab and click on *Add to Favorites*.


[Data](#)
[Maps](#)
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 John Smith


[Download Layer](#)
[Metadata Detail](#)
[Editing Tools](#)
[View Layer](#)
[Download Metadata](#)

Legend

Default Point

- Red Square

Maps using this layer

This layer is not currently used in any maps.

Create a map using this layer

Click the button below to generate a new map based on this layer.

[Create a Map](#)

Add the layer to an existing map

Regioni Italiane Map

Click the button below to add the layer to the selected map.

[Add to Map](#)

Styles

The following styles are associated with this layer. Choose a style to view it in the preview map.

- (default style) Default Point

Refresh Attributes and Statistics of this layer

Click the button below to allow GeoNode refreshing the list of available Layer Attributes. If the option 'WPS_ENABLED' has been also set on the backend, it will recalculate their statistics too.

[Refresh Attributes and Statistics](#)

Clear the Server Cache of this layer

Click the button below to wipe the tile-cache of this layer.

[Empty Tiled-Layer Cache](#)

Permissions

Click the button below to change the permissions of this layer.

[Change Layer Permissions](#)

About

Owner, Point of Contact, Metadata Author

 johnsmith
John Smith Foundation

Info [Attributes](#) [Share](#) [Ratings](#) [Comments](#) [Favorite](#)

Title Italian Towers
License Not Specified
Abstract No abstract provided
Publication Date June 7, 2019, 4:03 a.m.
Type Vector Data
Keywords features , italian_towers
Category Environment
Regions Global
Owner johnsmith

[More info](#)

[Layer WMS GetCapabilities document](#)

Fig. 91: *Layer Preview*

Info

Attributes

Share

Ratings

Comments

Favorite

Title

License

Abstract

Publication Date

Type

Keywords

Category

Regions

Owner

More info

Language

Supplemental Information

Regioni Italiane

Not Specified

No abstract provided

June 7, 2019, 4:49 a.m.

Data

features , Reg2015_WGS84_g

Environment

Global , Africa , Central Africa , North Africa , Algeria , Tunisia , Europe , Albania , Austria , Bosnia and Herzegovina , Croatia , France , Greece , Holy See (Vatican City) , Hungary , Italy , Liechtenstein , Malta , Monaco , Montenegro , San Marino , Serbia , Slovenia , Switzerland , Pacific


johnsmith

-

English


No information provided

Fig. 92: *Layer Info tab*


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Italian Towers



[Download Layer](#)
[Metadata Detail](#)
[Editing Tools](#)
[View Layer](#)
[Download Metadata](#)

Legend

Default Point

- Red Square

Maps using this layer

This layer is not currently used in any maps.

Create a map using this layer

Click the button below to generate a new map based on this layer.

[Create a Map](#)

Add the layer to an existing map

[Info](#)
[Attributes](#)
[Share](#)
[Ratings](#)
[Comments](#)
[Favorite](#)

Attribute Name	Label	Description	Range	Average	Median	Standard Deviation
fid			NA			
city			NA			
name			NA			
height			NA			

Fig. 93: *Layer Attributes tab*

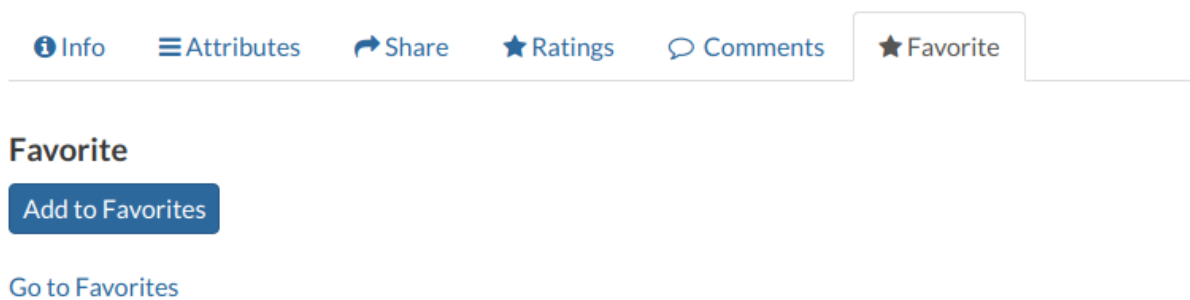
[Info](#)
[Attributes](#)

[Share](#)
[Ratings](#)
[Comments](#)
[Favorite](#)

Share This Layer

- [Email](#)
- [Facebook](#)
- [Twitter](#)
- [Google +](#)

Fig. 94: *Layer Sharing*

Fig. 95: *Rate the Layer*Fig. 96: *Layer Comments*Fig. 97: *Your Favorite Layer*

Layer Tools

In the right side of the *Layer Page* there are some buttons and information that can help you to manage your layer. This paragraph will cover only those tools which show layers information. The *Editing Tools* will be explored in the *Layer Editing* section.

- through the *Download Layer* button you can download your layer with some options, see *Downloading Layers*;
- the *Metadata Detail* button to see the layer metadata, see *Layers Metadata* to read more;
- the *Editing Tools* button allows you to access to many editing tools. Those functionalities will be explained in the *Layer Editing* section;
- the *View Layer* button opens the layer loaded in a map, see the *Map Information* for more details;
- the *Download Metadata* button allows you to download the layer metadata in various formats;
- the *Legend* shows what the symbols and styles on the map are referring to;
- in the *Map using this layer* section all the map which uses the layer are listed;
- in the *Create a map using this layer*, the *Create a Map* button allows you to create a map from scratch using the layer;
- the section *Add the layer to an existing map* shows you a dropdown menu in which all the maps the user can view are listed. The button *Add to Map* allows you to add the layer to the map you have selected in the previous menu;
- the *Styles* section shows all the styles associated with the layer. Click on the checkbox corresponding to one of the styles listed to apply it the preview;
- in the *Refresh Attributes and Statistics of this layer* section the *Refresh Attributes and Statistics* allows GeoNode to refresh the list of available Layer Attributes. If the option ‘WPS_ENABLED’ has been also set on the backend, it will recalculate their statistics too;
- in the *Clear the Server Cache of this layer* section the *Empty Tiled-Layer Cache* allows to wipe the tile-cache of this layer;
- the *About* section shows you the layer *Owner*, the *Contact* user and the *Metadata Author*.


Downloading Layers

At the top of the *Layer Page* there is the *Download Layer* button (see *Layer Information*). It provides access to the ability to extract geospatial data from within GeoNode.


You will see a list of options of the supported export formats. You can choose the *Images* formats PNG, PDF, JPEG if you want to save a “screenshot-like” image of the layer.

You can also download the layer data, the supported export formats will be listed in the *Data* tab. Click on your desired format to trigger the download.

As shown in the image above, GeoNode allows you to download a subset of data. Click on *Do you want to filter it?* to filter the layer data before the download.


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[Download Layer](#)
[Metadata Detail](#)
[Editing Tools](#)
[View Layer](#)
[Download Metadata](#)

Legend

Maps using this layer

This layer is not currently used in any maps.

Create a map using this layer

Click the button below to generate a new map based on this layer.

[Create a Map](#)

Styles

The following styles are associated with this layer. Choose a style to view it in the preview map.

- ☐ A orange line style
- ☒ (default style) Red road

Refresh Attributes and Statistics of this layer

Click the button below to allow GeoNode refreshing the list of available Layer Attributes

[Info](#)
[Attributes](#)
[Share](#)
[Ratings](#)
[Comments](#)
[Favorite](#)

Title roads

License Not Specified 

Abstract No abstract provided

Publication Date June 7, 2019, 2:15 p.m.

Type Vector Data

Keywords features, ne_10m_roads

Category Transportation 

Regions Global

Owner johnsmith

More info -

 [Layer WMS GetCapabilities document](#)

Fig. 98: Change the Layer Style in preview

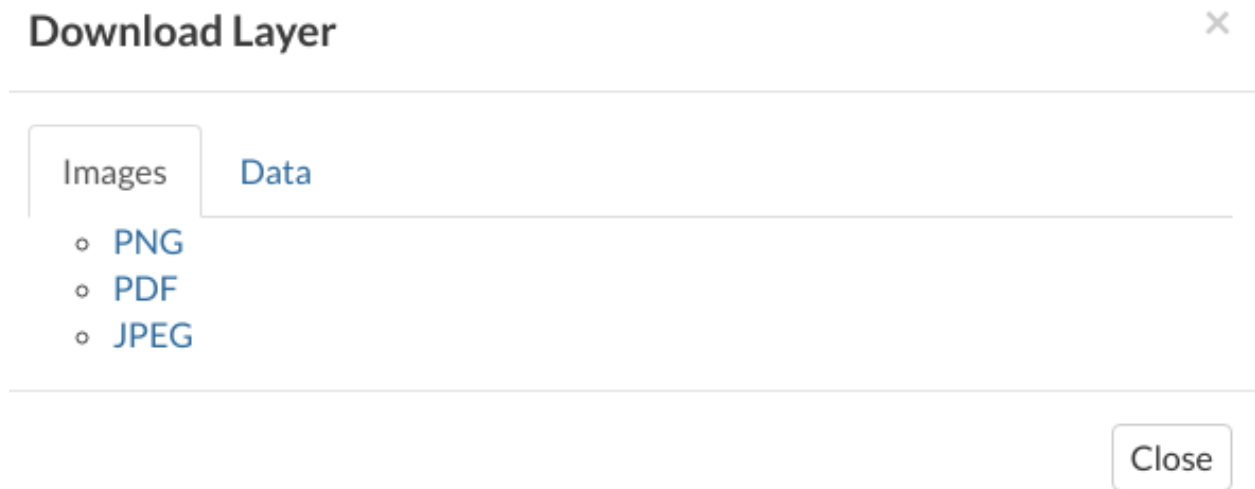
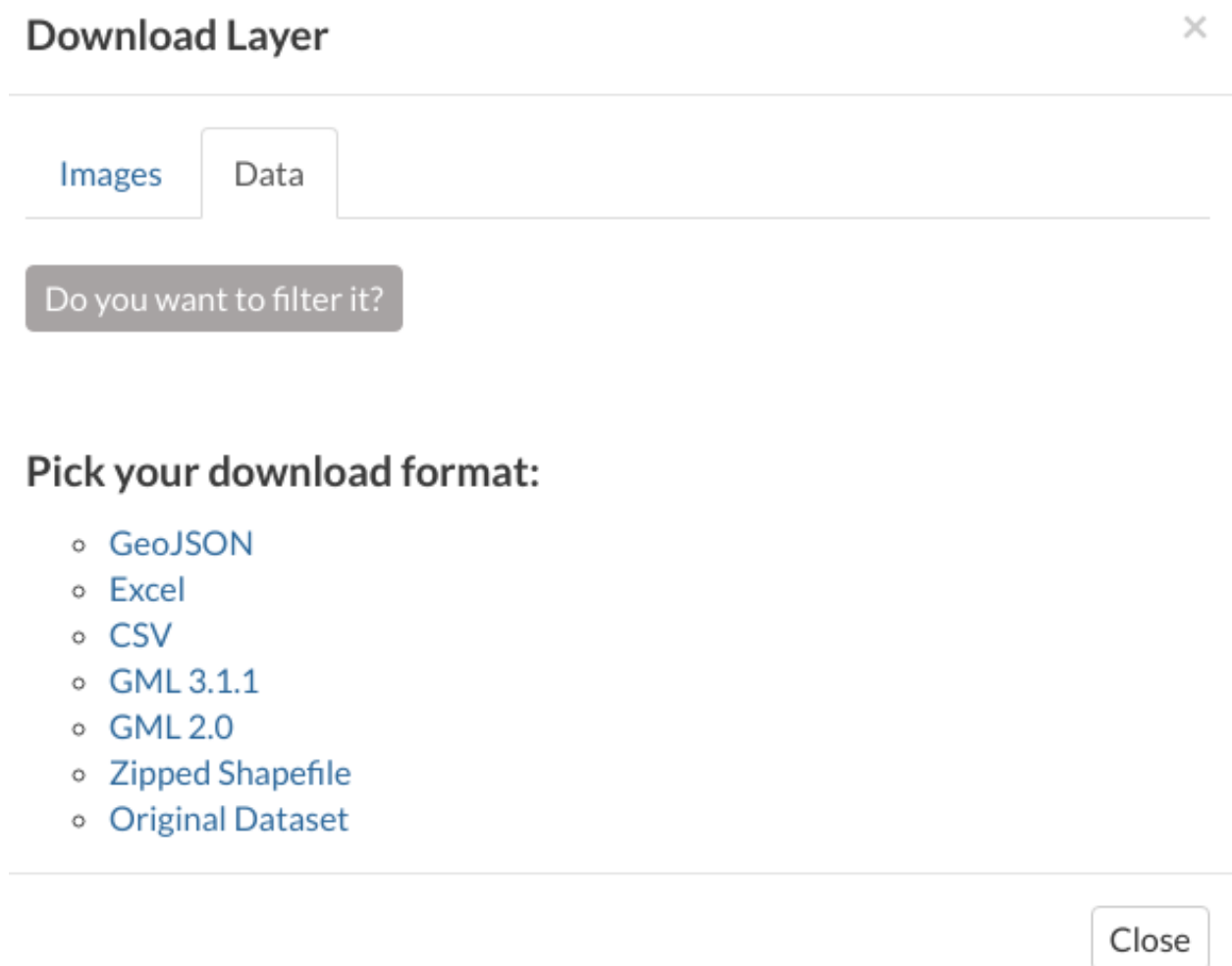
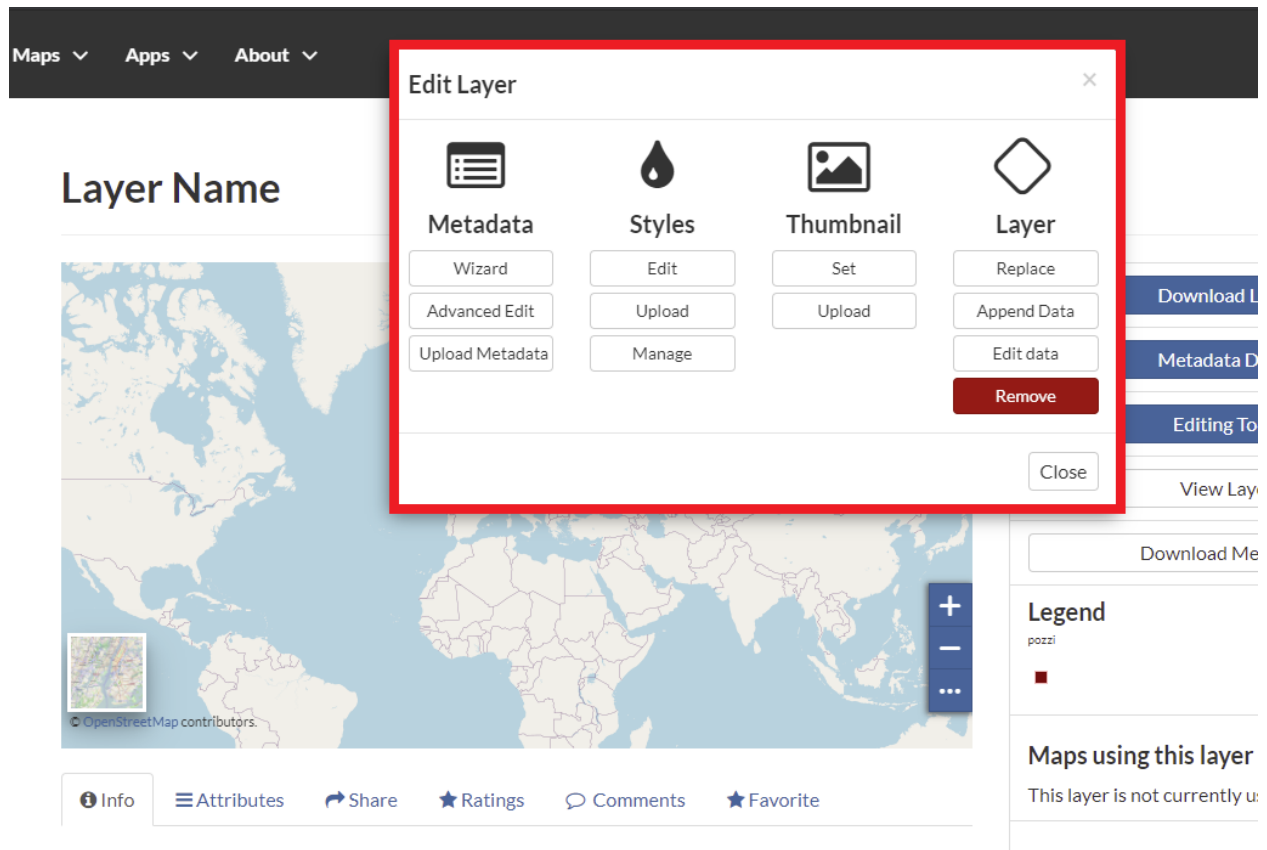
Fig. 99: *Downloading Layers as Images*Fig. 100: *Downloading the Layer Data*

Fig. 101: *Downloading the Layer Data*

Layer Editing

The *Editing Tools* button of the *Layer Page* (see [Layer Information](#)) opens a panel like the one shown in the picture below.

Fig. 102: *The Layer Editing panel*

In that panel you can see many options grouped by four categories:

1. *Metadata*
2. *Styles*
3. *Thumbnail*
4. *Layer*

In this section you will learn how to edit a *Layer*, how to replace and edit its data. See [Layers Metadata](#) to learn how to explore the layer *Metadata*, how to upload and edit them. The *Styles* will be covered in a dedicated section, see [Layer Styling](#).

Setting the Layer Thumbnail

The Thumbnail of the layer that will be displayed on the *Layers* list page can be changed by dragging and zooming on the layer preview to select which portion will be displayed, then by clicking on the *Set* button of the *Layer Editing* panel.

A message will confirm the thumbnail has been correctly changed.

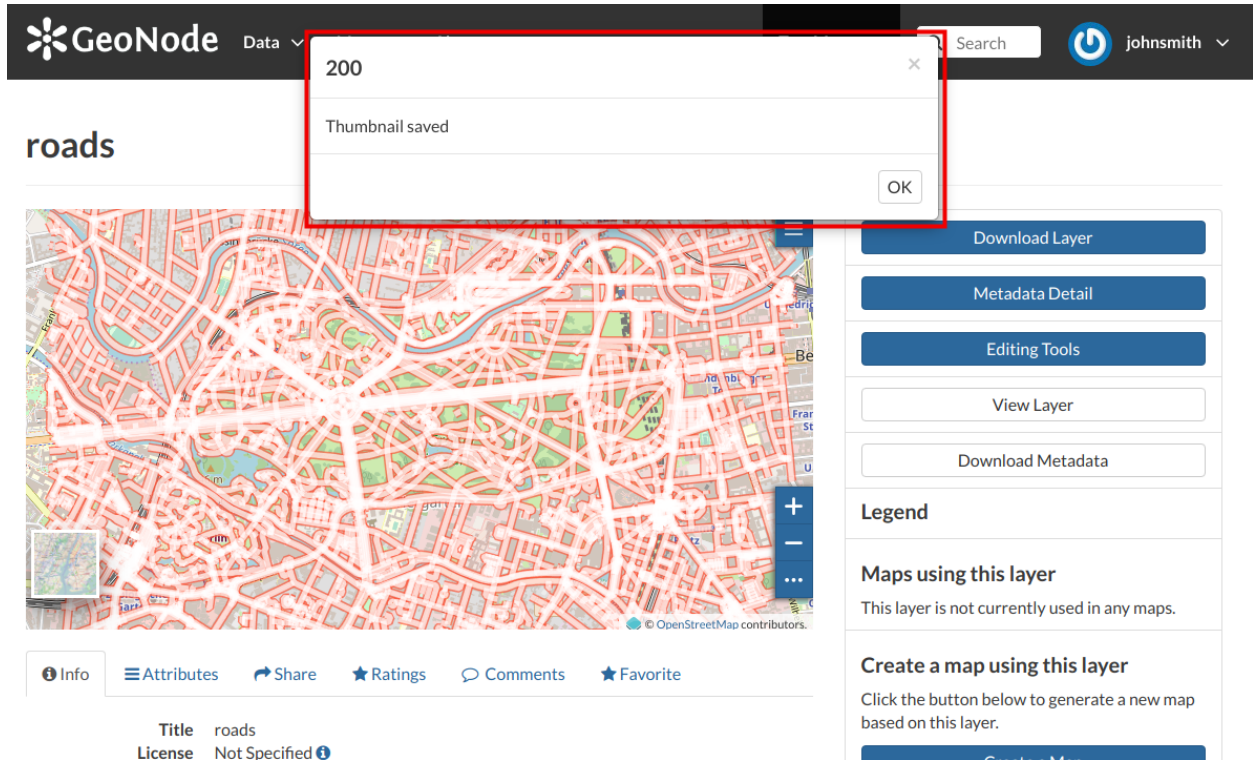


Fig. 103: The Layer Editing panel

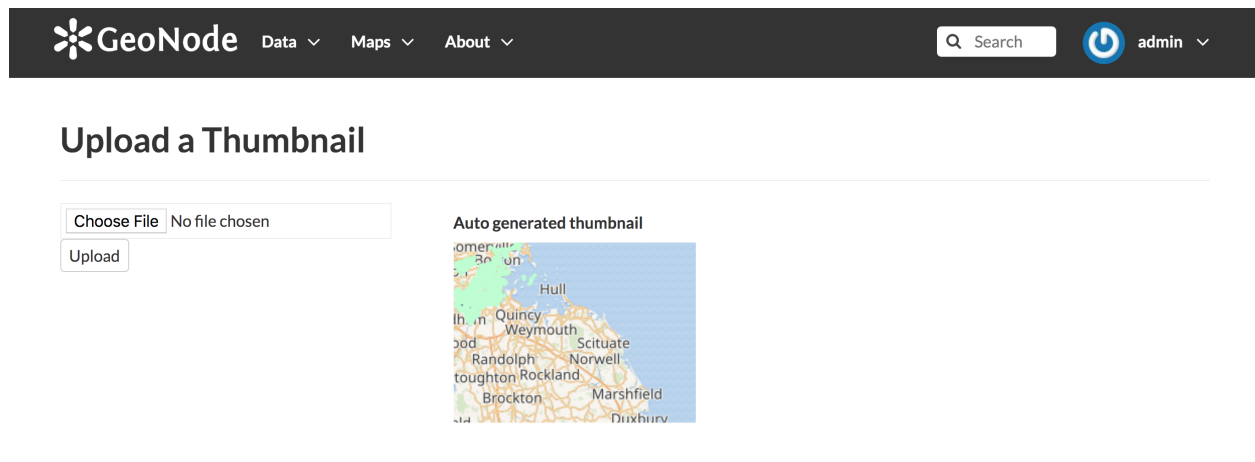
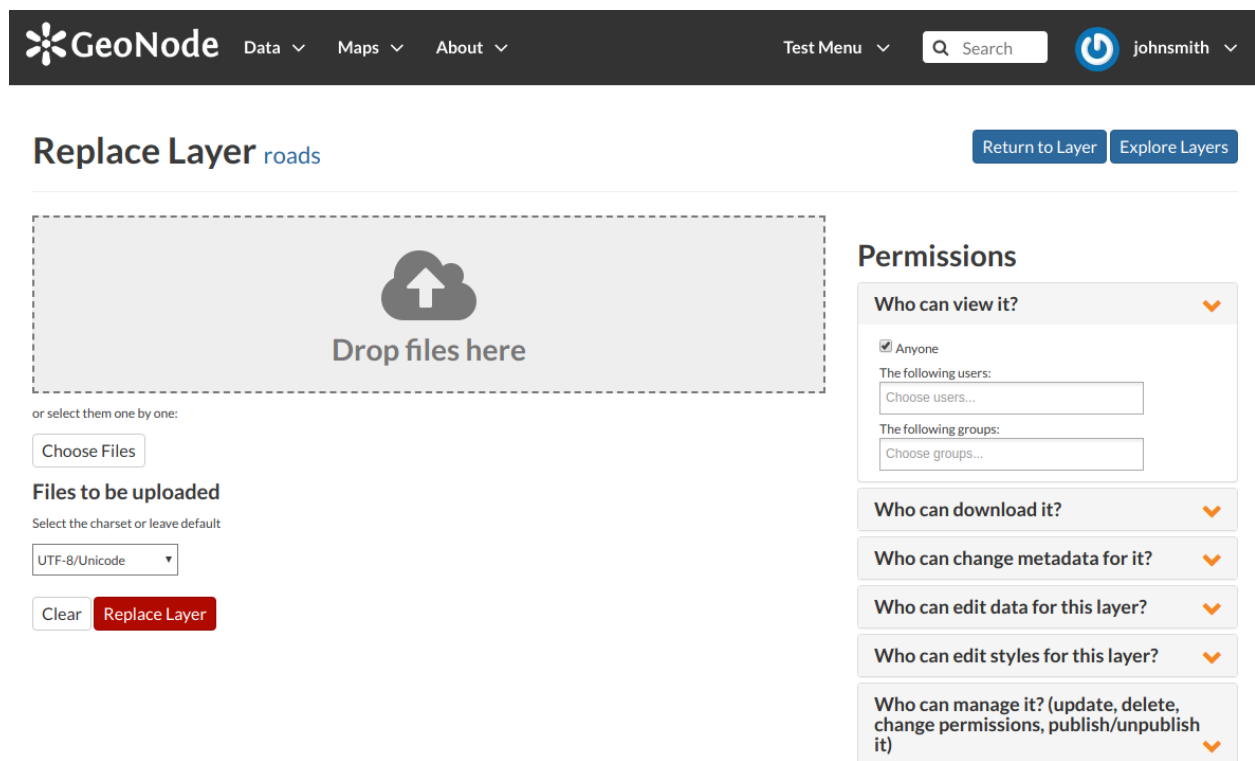
It is also possible to manually upload a thumbnail by using the *Upload* button of the *Layer Editing* panel. Using the “Upload Thumbnail” page it is possible to enable the automatically generated thumbnail or upload an image to be used in place of it.


Replacing the Layer

From the *Layer Editing* panel click on *Replace* to change the layer source dataset. You will be driven to the *Replace Layer* page in which *Choose Files* button allows you to select files from your disk.


Once the *Charset* selected the upload process can be triggered by clicking on *Replace Layer*. If no errors occur you will see a message like the one in the picture below.

We have replaced the *roads* dataset with the *railways* one. You can see the differences in the *Layer Preview*.

Fig. 104: *The Upload Thumbnail panel*Fig. 105: *Replace a Layer*

 Data ▾ Maps ▾ About ▾

Test Menu ▾

 johnsmith ▾

Replace Layer [roads](#)

[Return to Layer](#) [Explore Layers](#)



Drop files here

or select them one by one:

Choose Files

Files to be uploaded

railways

ESRI Shapefile

- [railways.shx Remove](#)
- [railways.shp Remove](#)
- [railways.prj Remove](#)
- [railways.dbf Remove](#)

Your layer was successfully updated

[Layer Info](#) [Edit Metadata](#) [Upload Metadata](#) [Upload SLD](#) [Manage Styles](#)

Select the charset or leave default

UTF-8/Unicode ▾

[Clear](#) [Replace Layer](#)

Permissions

Who can view it? ▾

☒ Anyone
The following users:

The following groups:

Who can download it? ▾

Who can change metadata for it? ▾

Who can edit data for this layer? ▾

Who can edit styles for this layer? ▾

Who can manage it? (update, delete, change permissions, publish/unpublish it) ▾

Fig. 106: *Replace Layer success*

[Info](#)
[Attributes](#)
[Share](#)
[Ratings](#)
[Comments](#)
[Favorite](#)

Title	roads
License	Not Specified ⓘ
Abstract	No abstract provided
Publication Date	June 7, 2019, 2:15 p.m.
Type	Vector Data
Keywords	features , ne_10m_roads
Category	Transportation ⓘ
Regions	Global
Owner	johnsmith

[More info](#) -

- Download Layer
 - Metadata Detail
 - Editing Tools
 - View Layer
 - Download Metadata

Maps using this layer

Create a map using this layer

Create a Map

The following styles are associated with this layer. Choose a style to view it in the preview map.

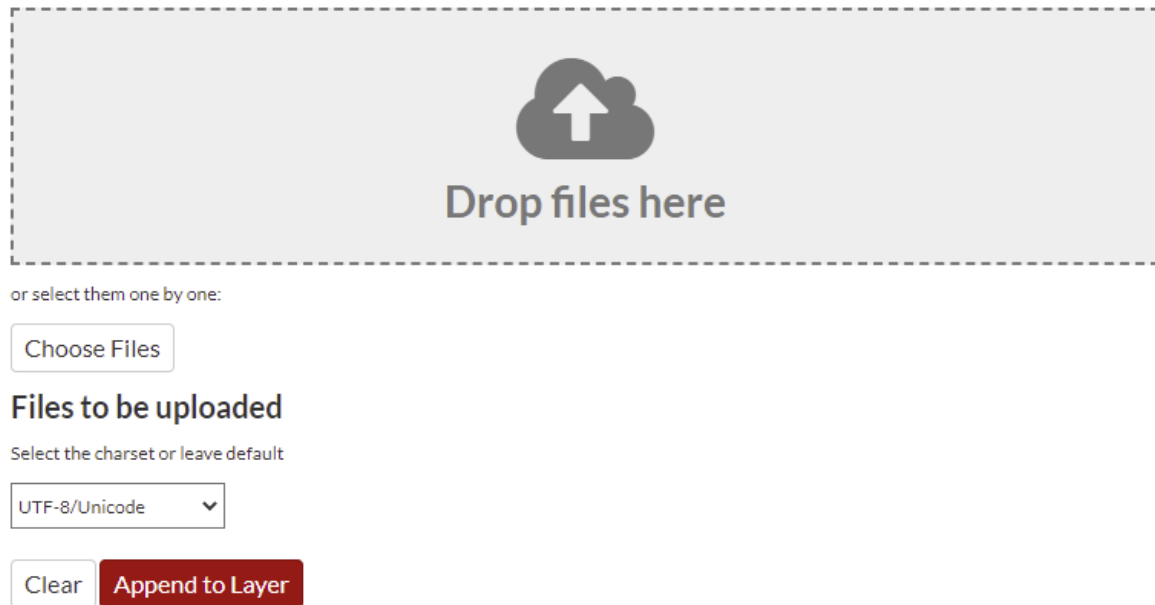
- ☐ A orange line style
- ☒ (default style) Red road

1.1. GeoNode Users Guide

Append Data to Layer

From the *Layer Editing* panel click on *Append* to append data to the layer source dataset. You will be driven to the *Append Layer* page in which *Choose Files* button allows you to select files from your disk.

Append to Layer Layer Name



Drop files here

or select them one by one:

Choose Files

Files to be uploaded

Select the charset or leave default

UTF-8/Unicode ▼

Clear Append to Layer


Fig. 108: *Append to a Layer*

Once the *Charset* selected the upload process can be triggered by clicking on *Append to Layer*. If no errors occur you will see a message like the one in the picture below.

We have append the *layer_name* dataset to the existing one. You can see the differences in the *Layer Preview*.

Editing the Layer Data

The *Edit data* button of the *Layer Editing* panel opens the *Layer* within a *Map*.

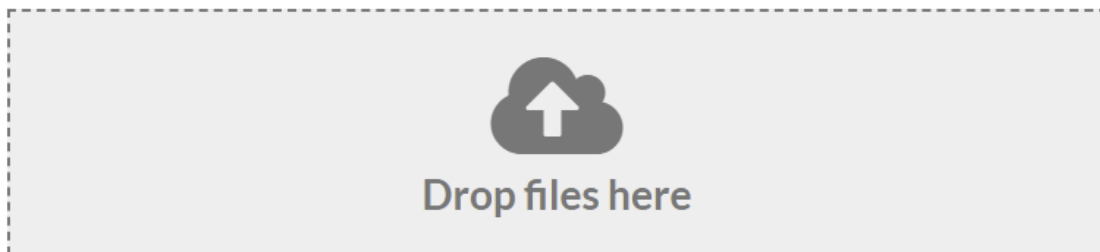
The *Attribute Table* panel of the *Layer* will automatically appear at the bottom of the *Map*. In that panel all the features are listed. For each feature you can zoom to its extent by clicking on the corresponding *magnifying glass* icon  at the beginning of the row, you can also observe which values the feature assumes for each attribute.

Click the *Edit Mode*  button to start an editing session.

Now you can:

- *Add new Features*

Append to Layer [Layer Name](#)



or select them one by one:

Choose Files

Files to be uploaded

ESRI Shapefile

- [.dbf Remove](#)
- [prj Remove](#)
- [shp Remove](#)
- [shx Remove](#)

Your layer was successfully updated

Layer Info

Edit Metadata

Upload Metadata

Manage Styles

Fig. 109: *Replace Layer success*

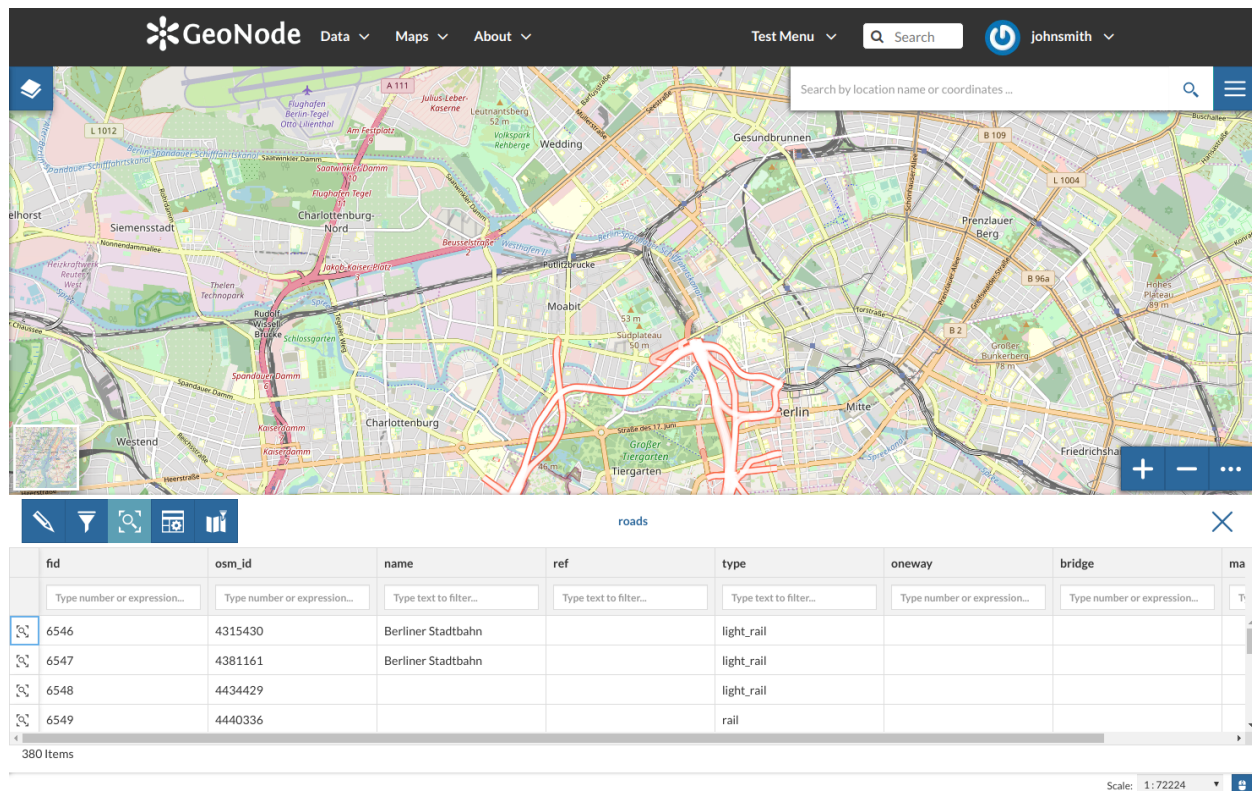


Fig. 110: Editing the Layer Data





Through the *Add New Feature* button  it is possible to set up a new feature for your layer. Fill the attributes fields and click  to save your change. Your new feature doesn't have a shape yet, click on  to draw its shape directly on the Map then click on  to save it.

Fig. 111: Add a New Feature to the Layer

Note: When your new feature has a multi-vertex shape you have to double-click the last vertex to finish the drawing.

- *Delete Features*

If you want to delete a feature you have to select it on the *Attribute Table* and click on .

Fig. 112: Delete a Feature

- *Change the Feature Shape*

You can edit the shape of an existing geometry dragging its vertices with the mouse. A blue circle lets you know what vertex you are moving.

Features can have *multipart shapes*. You can add parts to the shape when editing it.

Fig. 113: *Feature Shape Editing - Change the existing shape*Fig. 114: *Feature Shape Editing - Add parts to the existing shape*

- *Change the Feature Attributes*

When you are in *Edit Mode* you can also edit the attributes values changing them directly in the corresponding text fields.

Fig. 115: *Feature Attributes Editing*

Once you have finished you can end the *Editing Session* by clicking on the  button.

By default the GeoNode map viewer is [MapStore](#) based, see the [MapStore Documentation](#) for further information.

Layers Metadata

In GeoNode special importance is given to *Metadata* and their standard formats. You can explore the *Metadata* of a *Layer* by clicking the *Metadata Detail* button from the *Layer Page*.

The *Layer Metadata* page will be displayed.

In that page you can see the whole set of available metadata about the layer. Metadata are grouped in order to show the following types of information:

- *Identification* to uniquely identify the layer (Title, Abstract, Publication Date etc.);
- *Owner*, the user who owns the layer;
- *Information*, the Identification Image, the Spatial Extent, Projection System and so on;
- *Features*, Language, Supplemental and other Information;
- *Contact Points*, the available user to get in contact;
- *References*, various links to the resource information and data;
- *Metadata Author*, information about the author of the metadata.

Downloading Metadata

The *Download Metadata* button of the *Layer Page* allows you to download the layer metadata in various formats.

The available download formats are grouped in three categories:

- *Full metadata*
- *Standard Metadata - XML format*
- *Attribute Information*

Click on the format name that you prefer to start the download.

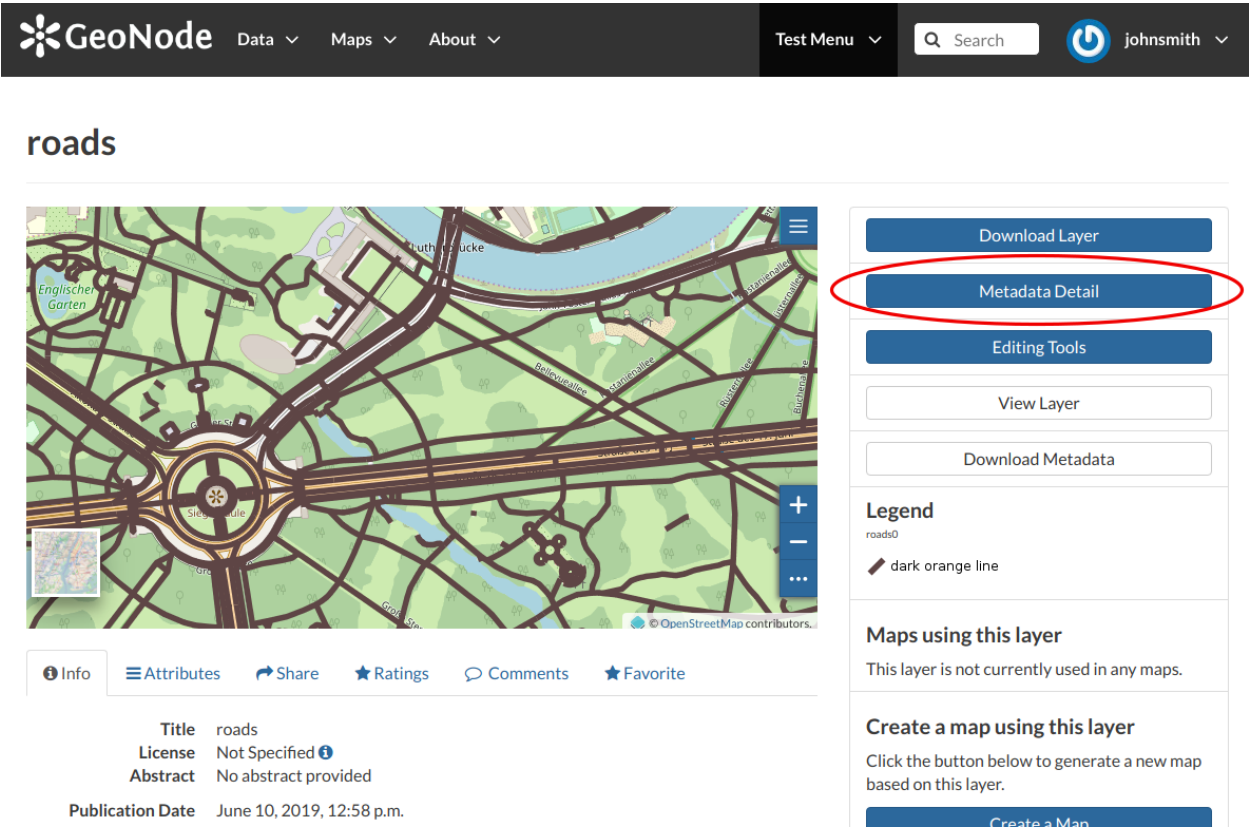


Fig. 116: The Layer Metadata Detail button

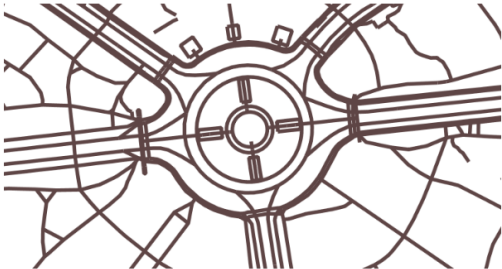
GeoNode

DataMapsAboutTest MenuSearchjohnsmith

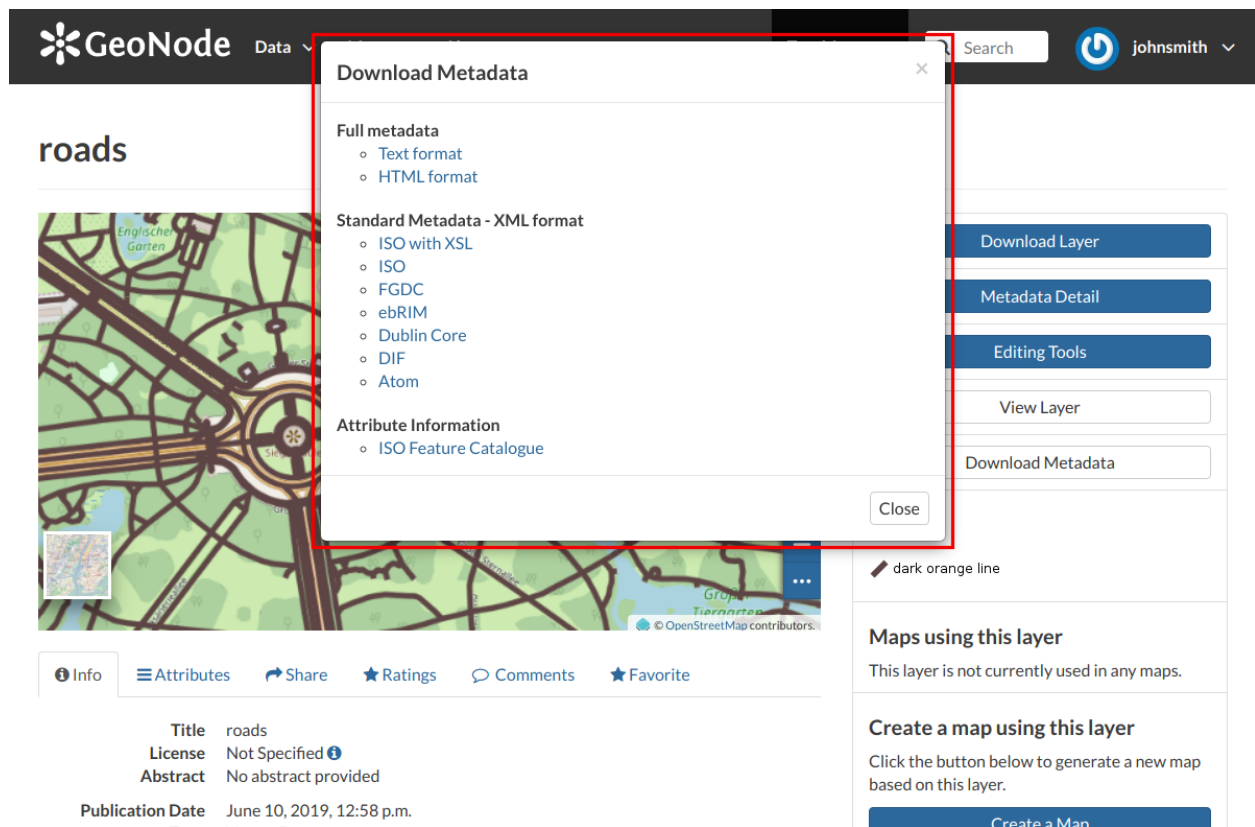
Metadata : roadsReturn to Layer

Identification

TitleroadsAbstractNo abstract providedLicenseNot SpecifiedPublication DateJune 10, 2019, 12:58 p.m.TypeVector DataKeywordsfeatures ne_10m_roadsCategoryTransportationRegionsGlobalApprovedYesPublishedYesFeaturedNoOwnerNamejohnsmithemailjohnsmith@mail.comPositionNoneOrganizationNoneLocationNoneVoiceNoneFaxNoneInformation

Identification Image

Spatial Extent---Projection SystemEPSG:4326Extension x013.326002500000000Extension x113.386977980000000Extension y052.503006700000000Extension y152.525999300000000FeaturesLanguageEnglishSupplemental InformationNo information providedContact PointsNamejohnsmithemailjohnsmith@mail.comPositionNoneOrganizationNoneLocationNoneVoiceNoneFaxNoneReferencesLink Online /layers/geonode:roads0Metadata Page /layers/geonode:roads0/metadata_detailThumbnail roads.pngRemote Thumbnail roads.pngLegend roads.pngGeoJSON roads.jsonExcel roads.excelCSV roads.csvGML 3.1.1 roads.gmlGML 2.0 roads.gmlZipped Shapefile roads.zipPNG roads.pngPDF roads.pdfJPEG roads.jpgOriginal Dataset roads.zipOGC WFS: geonode Service Geoservice OGC:WFSOGC WMS: geonode Service Geoservice OGC:WMSMetadata AuthorNamejohnsmithemailjohnsmith@mail.comPositionNoneOrganizationNoneLocationNoneVoiceNoneFaxNone

Fig. 118: *How to Download Metadata*

Metadata Wizard

Metadata contains all the information related to the layer. They provide essential information for its identification and its comprehension. Metadata also make the layer more easily retrievable through search by other users.

The *Metadata* of a layer can be changed through a *Wizard* which involves four steps, one for each type of metadata considered:

- **Basic Metadata**

The first two steps are mandatory (no layers will be published if the required information are not provided) whereas the last two are optional.

Metadata for roads

Completeness: 50% (Check Schema mandatory fields)

Buttons: Edit, Preview, Settings

Progress: Mandatory (Steps 1, 2) | Optional (Steps 3, 4)

1 Basic Metadata

Thumbnail:

Edit

2 Location and Licenses

Title: roads

Abstract: No abstract provided

3 Optional Metadata

Free-text Keywords: features, roads

Date type: Publication | Date: 2020-11-10 17:1

Category: ---

Group: ---

Buttons: Return to Layer, Update, Next >>

Fig. 119: *Basic Layer Metadata*

In the first step the system asks you to insert the following metadata:

- The *Thumbnail* of the layer (click *Edit* to change it);
- The *Title* of the layer, which should be clear and understandable;
- An *Abstract*; brief narrative summary of the content of the Layer

Note: The *Abstract* panel allows you to insert HTML code through a *wysiwyg* text editor

- The *Creation/Publication/Revision Dates* which define the time period that is covered by the layer;
- The *Keywords*, which should be chosen within the available list. The contributor search for available keywords by clicking on the searching bar, or on the folder logo representing, or by entering the first letters of the desired word;
- The *Category* which the layer belongs to;
- The *Group* which the layer is linked to.

• Location and Licenses

Metadata for roads

Completeness
Check Schema mandatory fields
50 %

Edit Preview Settings

Mandatory Mandatory Optional

1 2 3 4
Basic Metadata Location and Licenses Optional Metadata Dataset Attributes

Language English
License Not Specified
DOI a DOI will be added by Admin before publicatio
Attribution authority or function assigned, as to a ruler, legi

Regions Global
Data quality statement
File Edit View Insert Format Tools Table
Help
0 WORDS POWERED BY TINY

Restrictions
Other constraints
File Edit View Insert Format Tools Table
Help
0 WORDS POWERED BY TINY

Return to Layer << Back Update Next >>

Fig. 120: *Location and Licenses Metadata for Layers*

The following list shows what kinds of metadata you are required to enter (see also the picture below):

- The *Language* of the layer;

- The *License* of the dataset;
- The *DOI* of the dataset; if available, this represents the [Digital Object Identifier](#) of the resource
- The *Attribution* of the dataset; authority or function assigned, as to a ruler, legislative assembly, delegate, or the like
- The *Regions*, which informs on the spatial extent covered by the layer. Proposed extents cover the following scales: global, continental, regional, national;
- The *Data Quality statement* (general explanation of the data producer’s knowledge about the lineage of a dataset);
- Potential *Restrictions* on layer sharing.

Note: The *Data Quality statement* and *Restrictions* panels allow you to insert HTML code through a wysiwyg text editor

• Optional Metadata

Complementary information are:

- The *Edition* to indicate the reference or the source of the layer;
- The *Purpose* of the layer and its objectives;
- Any *Supplemental information* that can provide a better understanding of the uploaded layer;
- The *Maintenance frequency* of the layer;
- The users who are *Responsible* for the layer, its *Owner*, and the *Author* of its metadata;
- The *Spatial representation type* used.

Note: The *Purpose* and *Supplemental information* panels allow you to insert HTML code through a wysiwyg text editor

• Dataset Attributes

At this step you can enrich the dataset attributes with useful information like the following:

- The *Label* displayed
- A detailed *Description*
- The *Display Order*
- The *Display Type*; the default value is *Label*, which means that the value of the attribute will be rendered as a plain text. There’s the possibility to instruct GeoNode to treat the values as different media-types. As an instance, if the values of the selected attribute will contain image urls, by selecting the *IMAGE Display Type* you will allow GeoNode to render the image directly when querying the layer from the maps. The same for *VIDEO*, *AUDIO* or *IFRAME* mime types.
- The *Visible* flag; allows you to instruct GeoNode whether or not hiding an attribute from the *Get Feature Type* outcomes

It is possible to define a completely custom HTML template for the *Get Feature Type* outcome. That is possible by enabling the *Use a custom template* flag as shown in the figure below.

By using the keyword `${properties.<attribute_name>}`, you can tell to GeoNode to render the actual value of the attribute on the map.

Metadata for roads

Completeness

✖Check Schema mandatory fields

92%

Edit

Preview

Settings

Mandatory

Mandatory

Optional

1

2

3

4

Basic Metadata

Location and Licenses

Optional Metadata

Dataset Attributes

Other, Optional, Metadata

Edition ⓘ

version of the cited resource

Purpose

File Edit View Insert Format Tools Table

Help

↶ ↷ B I U S ...

P 0 WORDS POWERED BY TINY

Supplemental information

File Edit View Insert Format Tools Table

Help

↶ ↷ B I U S ...

temporal extent start

temporal extent end

Maintenance frequency ⓘ

Spatial representation type ⓘ

Responsible Parties

Point of Contact

admin × ▾

Responsible and Permissions

Owner

admin × ▾

Metadata Author

admin × ▾

Fig. 121: *Optional Layer Metadata*

Metadata for roads

Completeness

✖Check Schema mandatory fields

92 %

Edit

Preview

Settings

Mandatory

Mandatory

Optional

1

2

3

4

Basic Metadata

Location and Licenses

Optional Metadata

Dataset Attributes

Use a custom template?

Off

Attribute	Label	Description	Display Order	Display Type	Visible
fid			1	Label	<input checked="" type="checkbox"/>
the_geom			2	Label	<input type="checkbox"/>
cat			3	Label	<input checked="" type="checkbox"/>
label			4	Label	<input checked="" type="checkbox"/>

Label

URL

Image

Video (mp4)

Video (ogg)

Video (webm)

Video (3gp)

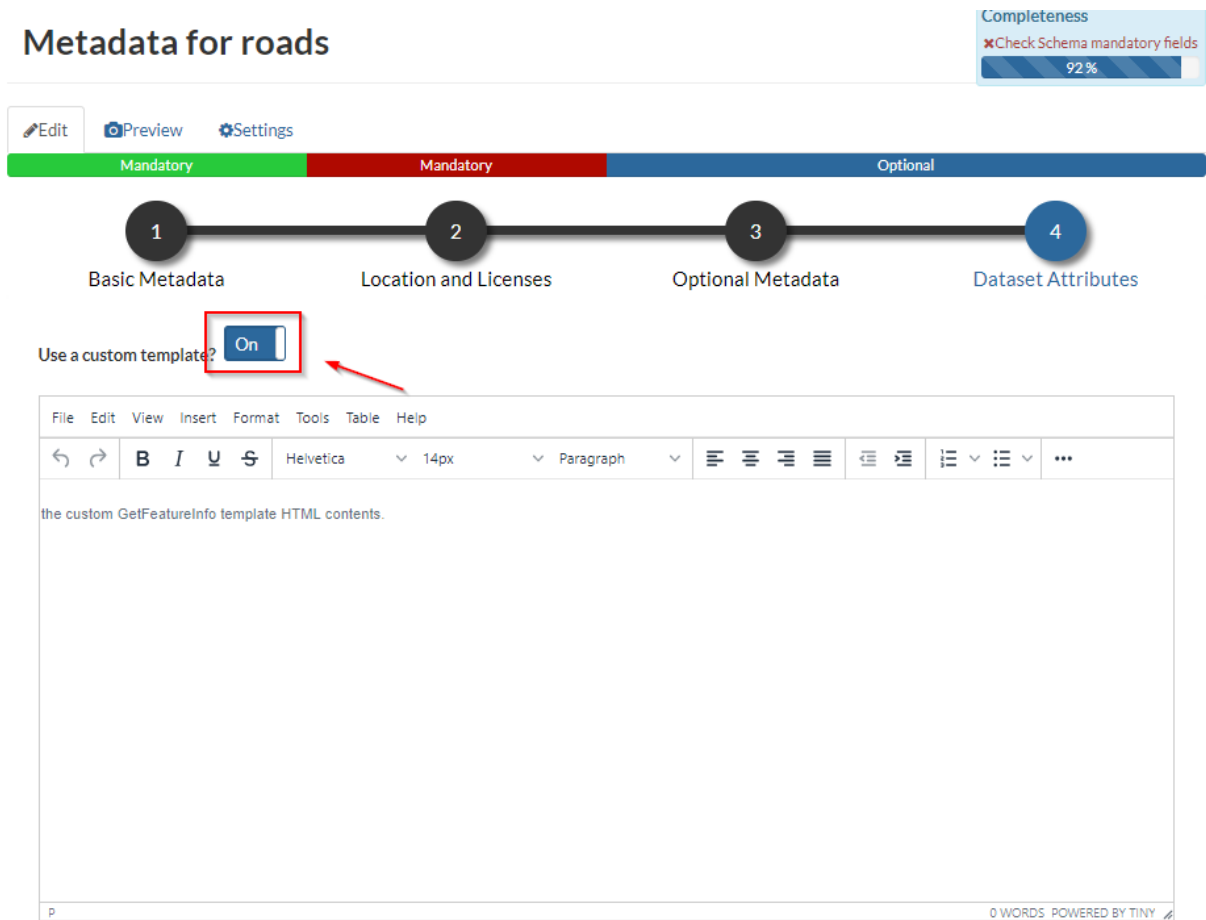
Video (flv)

Video (YouTube/VIMEO - embedded)

Audio

IFRAME

Fig. 122: Dataset Attributes Metadata for Layers



As an instance, the example below

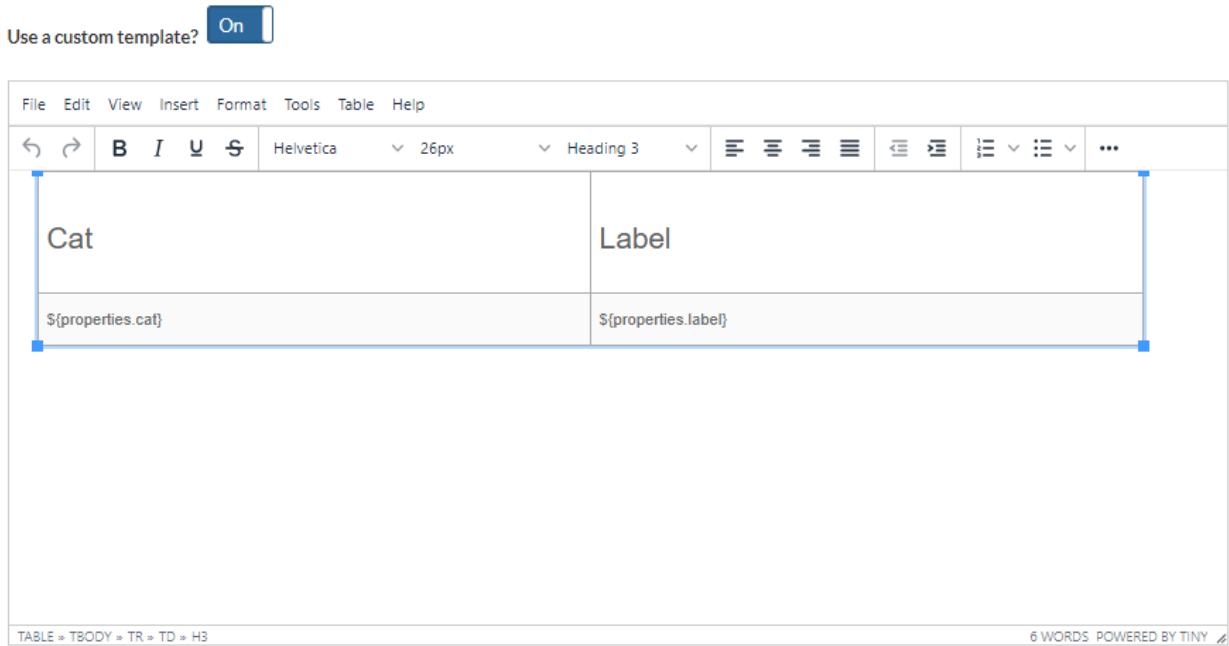


Fig. 124: *Use a custom template: HTML*

Will render an HTML Table along with values as shown here below

Use *next* >> or << *back* to navigate through those steps. Once you have finished click on *Update*.

Some metadata are mandatory, if you miss any of that metadata the *Completeness* bar shows you a red message like the one in the picture below.

Metadata Advanced Editing

In the *Layer Editing* panel the *Advanced Edit* is also available.

Click on it to display the *Metadata Advanced Editing Page*. That page allows you to edit all the layer metadata described in the previous paragraph. Once you have finished to edit them click on *Update* to save your changes.

Uploading Metadata

Users may also upload a metadata XML document (in ISO, FGDC, or Dublin Core format) to fill in key GeoNode metadata elements automatically. The picture below shows you how the page looks like.

Click on *Choose Files* to select the document from your disk, then click on *Upload files* to trigger the uploading process.

roads

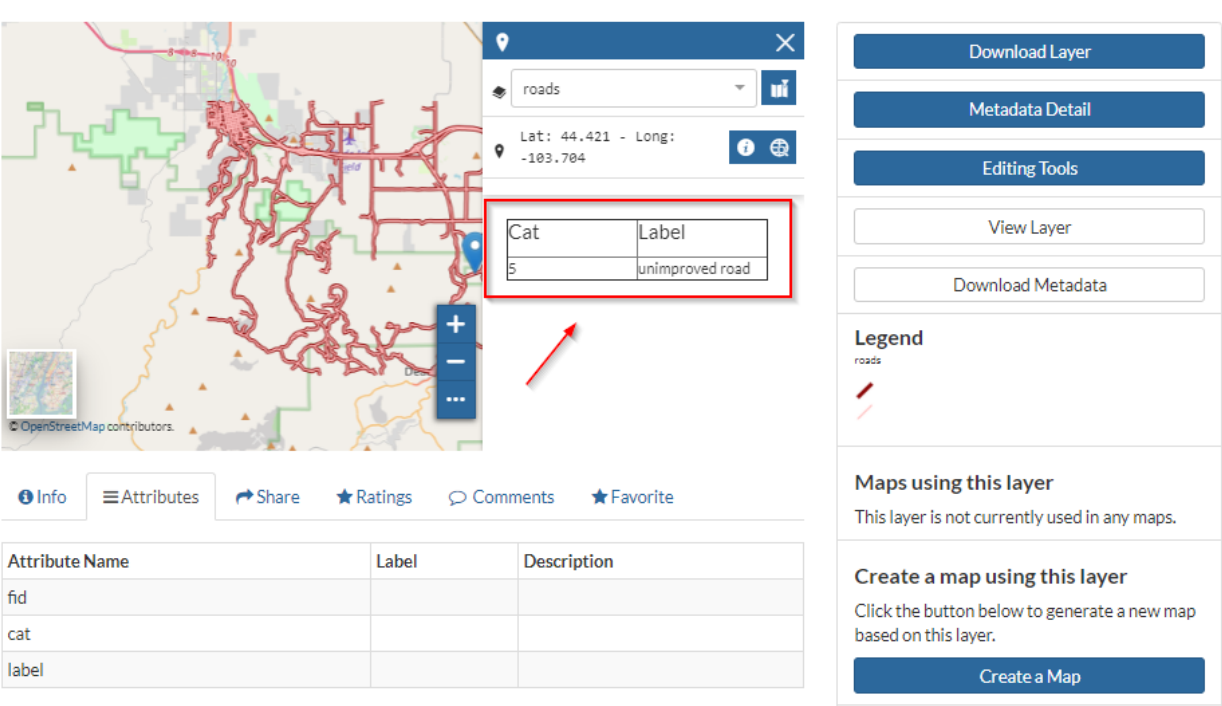


Fig. 125: Use a custom template: Get Feature Info outcome

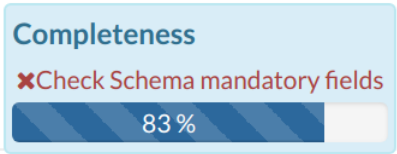


Fig. 126: Completeness Progress Bar

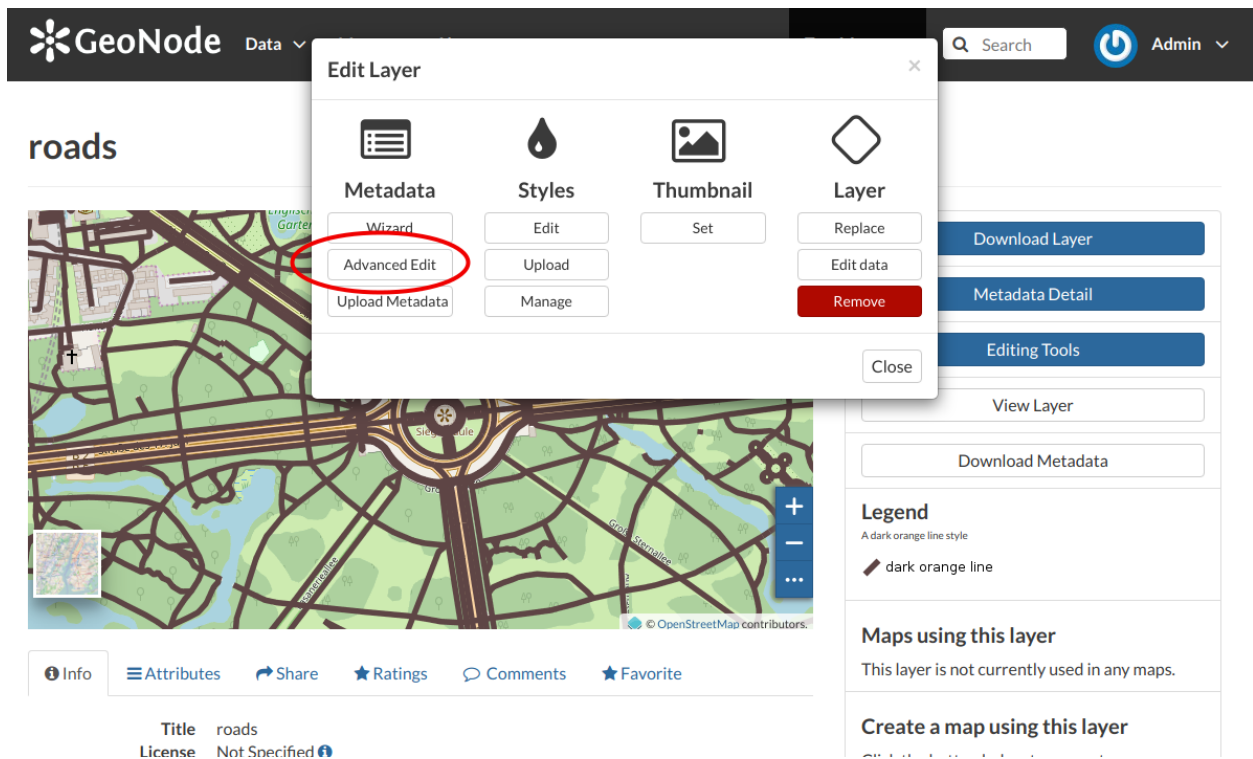


Fig. 127: The Advanced Edit button

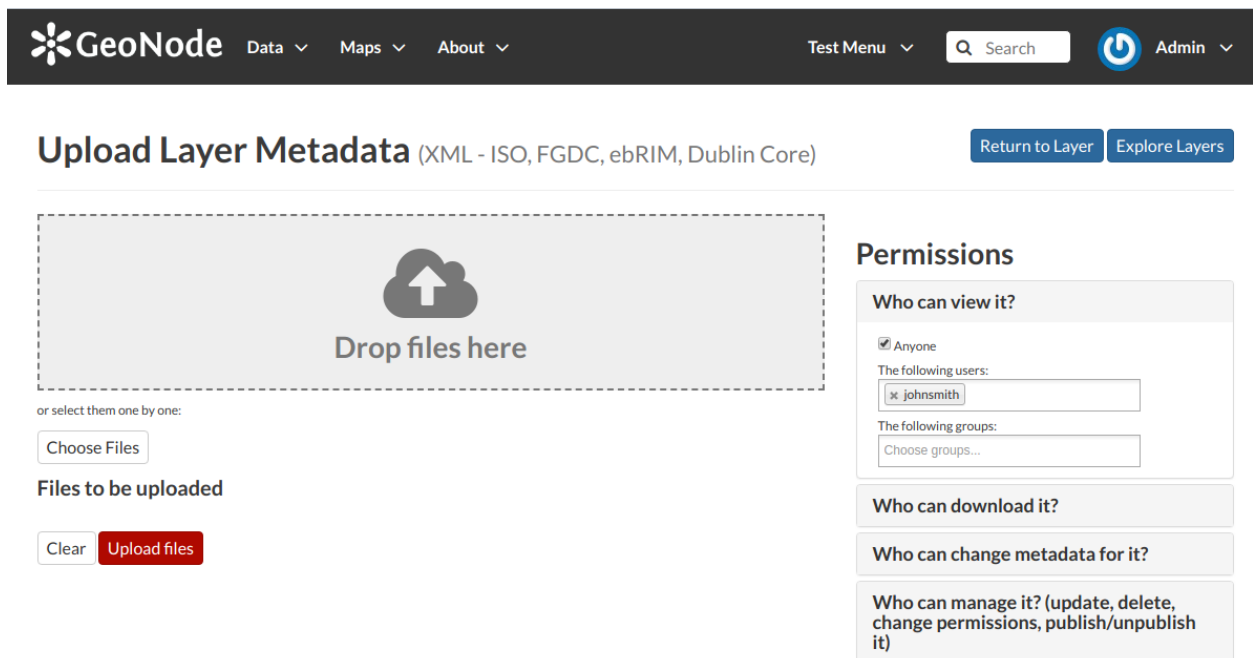


Fig. 128: The Metadata Advanced Editing page

Layer Styling

Maps are helpful because they allow you gain a deeper understanding of your data by allowing you to visualize it in many different ways. So you can tell different stories depending on how the data is presented. For any given data or layer, you should explore different styling options and choose the best style for that.

In GeoNode each layer has a *Default Style* which is determined by the nature of the data you're mapping. When uploading a new layer (see [Layers Uploading](#)) a new default style will be associated to it.

The screenshot shows the GeoNode interface for a layer named 'waterways'. The top navigation bar includes the GeoNode logo, links for Data, Maps, and About, a search bar, and a user profile for John Smith. The main content area is titled 'waterways' and features a map of Amsterdam with waterways highlighted in dark orange. Below the map is a metadata section with fields for Title, License, Abstract, Publication Date, Type, Keywords, Regions, and Owner. To the right of the map is a sidebar with buttons for Download Layer, Metadata Detail, Editing Tools, View Layer, and Download Metadata. Below these buttons is a 'Legend' section showing a dark orange line style. Further down is a 'Maps using this layer' section stating that the layer is not currently used in any maps. Below that is a 'Create a map using this layer' section with a 'Create a Map' button. At the bottom of the sidebar is a 'Styles' section, which is highlighted by a red arrow. The 'Styles' section lists the following styles: '(default style) A dark orange line style', which is circled in red. Below the styles section is a 'Refresh Attributes and Statistics of this layer' section with a button to refresh the list of available layer attributes.

Fig. 129: Default Style for Layers

Referring to the example above, dark orange lines are not very good to represent waterways so we would need to change this style. In the following paragraphs you will learn how to create a new style starting from given templates, how to edit a style, how to upload styles from file and how to manage them.

Creating new Styles

In order to create a new style, open the *Layer Page* (see [Layer Information](#)) and click on *Editing Tools*. Then click the *Edit* button in the *Styles* section of the *Layer Editing* panel (see the picture below).

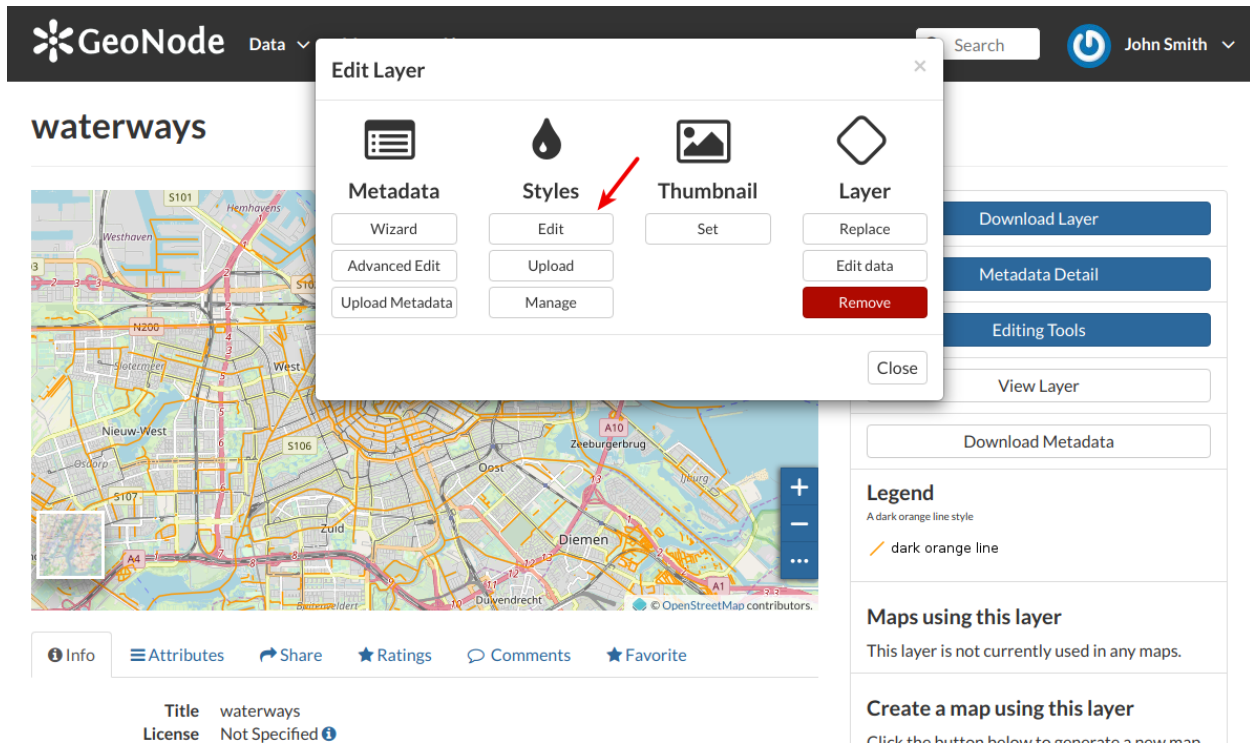




Fig. 130: *Edit Styles button*

The *Layer* will open in a new *Map*. The *Styles Panel* will show you all the available styles for the layer and some useful tools.

Now follow the steps below:

1. Click the  button. The *Style Templates Panel* will open.
2. Choose a *Style Template* from the list (both *CSS* and *SLD* styles are available).
3. Click the  button to add the *Style Template* to the styles list.
4. Insert a *Title* and an *Abstract* (optional), then click on *Save*.

The style you have created is now added to the *Styles List*.

You will also see this new style in the *Layer Page*.

Now you can switch the style by clicking on the corresponding checkbox.

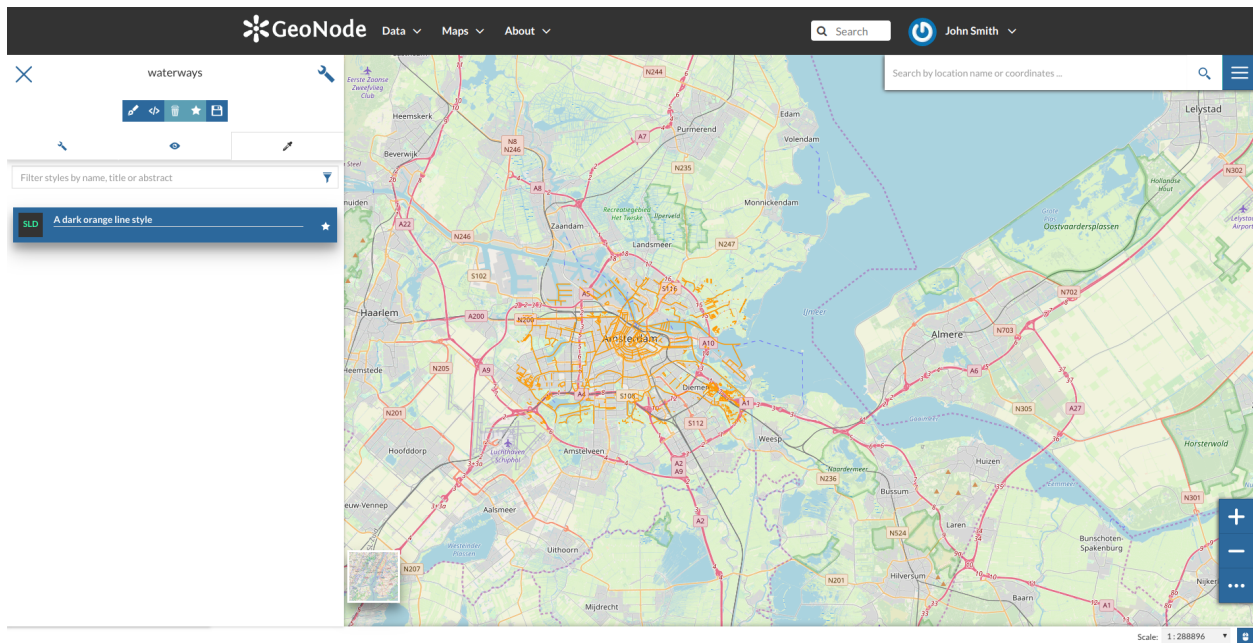





Fig. 131: The Styles Panel in the Map



It would be nice to change the style in order to decrease the opacity of the filling color as well as to reduce the lines width. The embedded [MapStore](#) makes available a powerful *Style Editor* to accomplish that tasks. In the next paragraph we will explain how.

Editing the Layer Style

The following steps show you how to edit styles:

1. From inside the map open the *TOC (Table Of Content)* by clicking the  button
2. Click on 
3. Open the *Style* tab 

Warning: Styles editing is allowed only to those users who have the needed permission. See [Changing the Layer Permissions](#) to read more)

4. Select the *Style* and click on 
5. Edit the style. The *Style Editor* helps you to write valid styles through the *Syntax Validator* which shows you a popup in case of errors (see the picture below).
6. Click on  to save your changes.

See the following gif to recap the whole process.

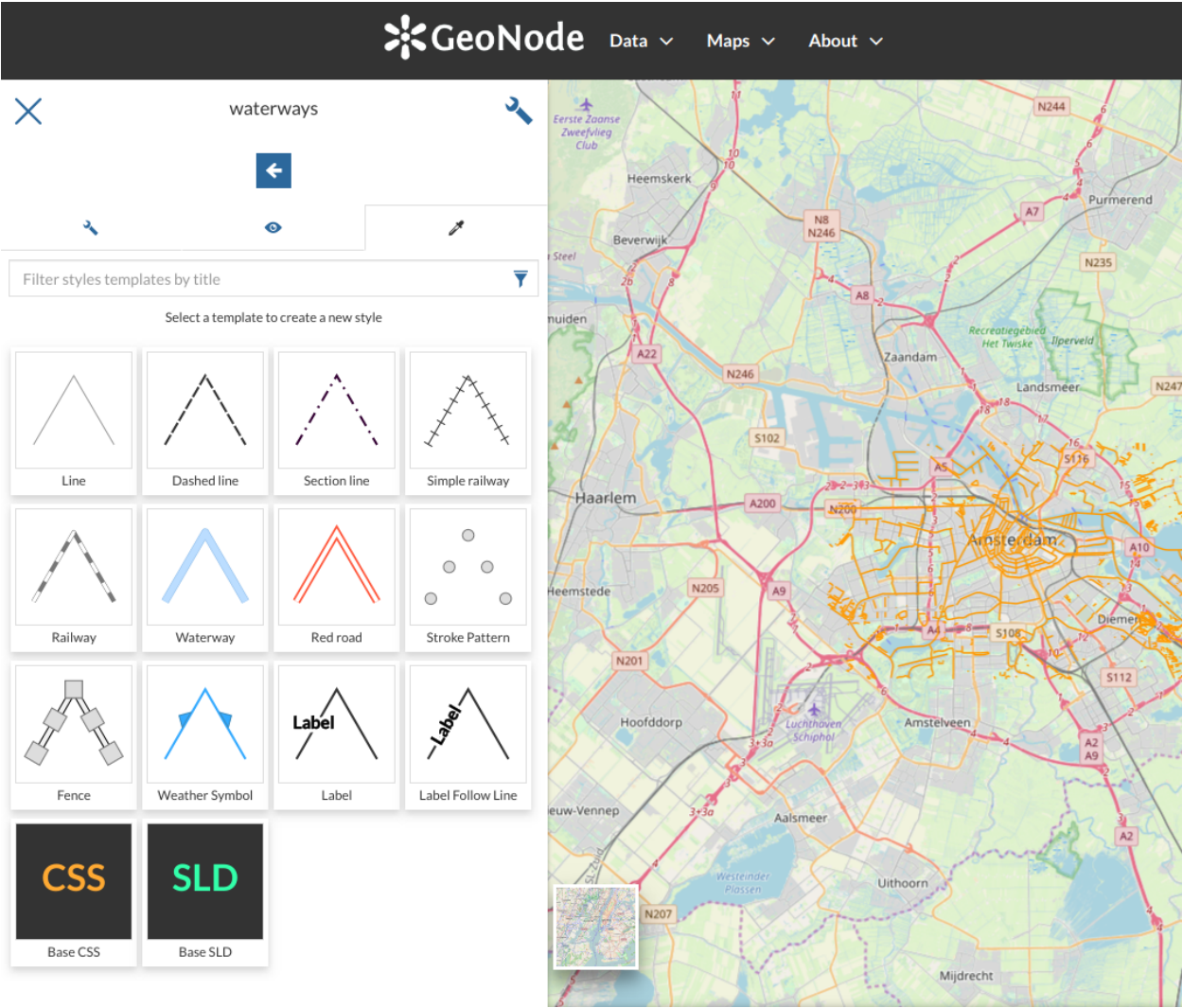


Fig. 132: Create new Styles

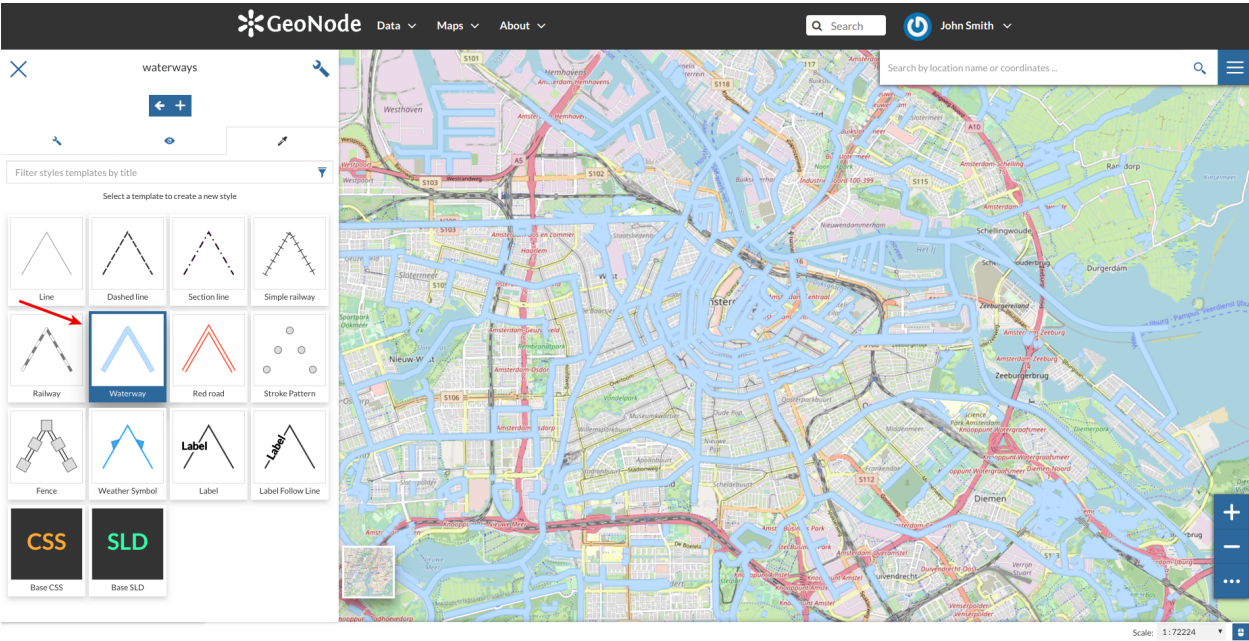


Fig. 133: *Style Templates*

Create new style

Title

Waterway

Abstract

A style for waterways

Save

Fig. 134: *Title and Abstract for new Styles*

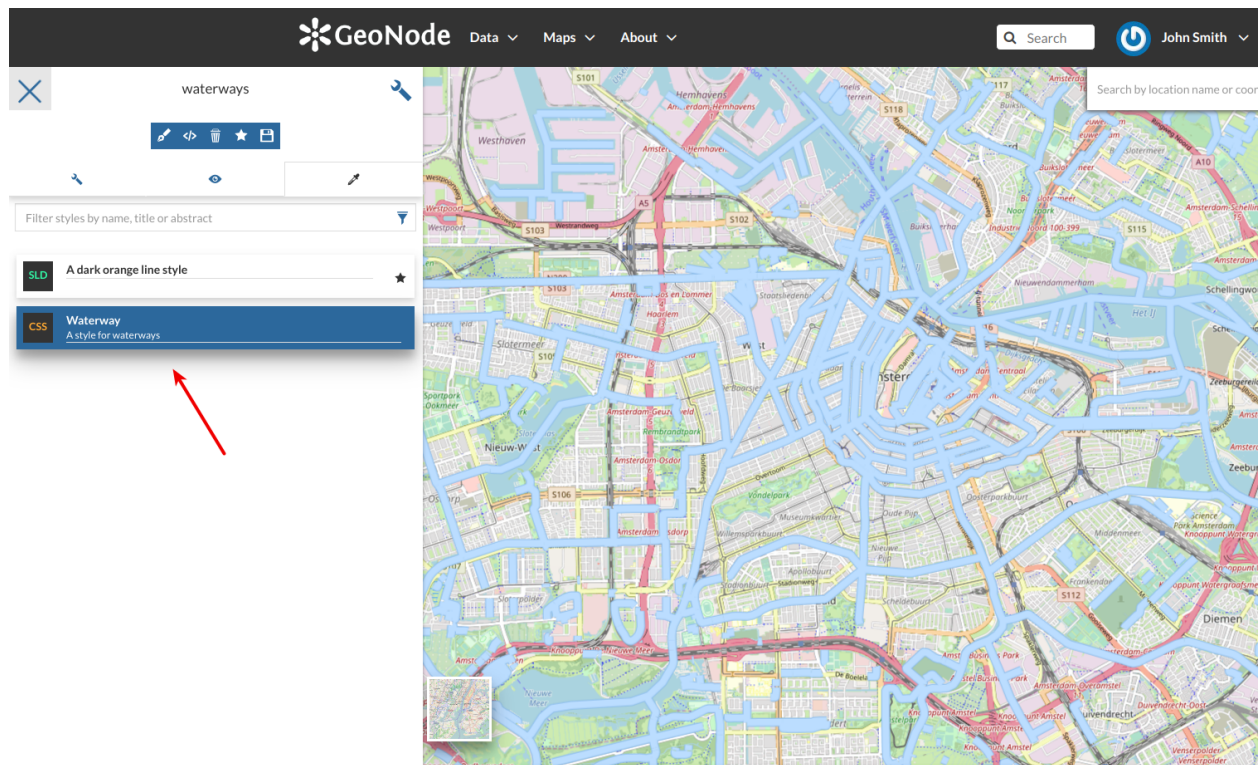



Fig. 135: New Styles into the list

You can also decide to make your new style the *Default Style* of that layer. Click on  to do that.

Click on  to delete the style.

Uploading Styles


In GeoNode it is also possible to upload an existing style from file.


Warning: Currently only styles in **SLD (Style Layer Descriptor 1.0, 1.1)** format can be uploaded in GeoNode.

From the *Layer Page* click on *Editing Tools* to open the *Editing Tools* panel and follow the steps below:

1. Click the *Upload* button of the *Styles* section
2. Click on *Choose Files* and select your style from your disk
3. Click on *Upload files*

Once the process has been finished the new *Style* will be visible in the *Layer Page*.


[Data](#)
[Maps](#)
[About](#)


[John Smith](#)



[Download Layer](#)
[Metadata Detail](#)
[Editing Tools](#)
[View Layer](#)
[Download Metadata](#)

Legend

A dark orange line style



Maps using this layer

This layer is not currently used in any maps.

Create a map using this layer

Click the button below to generate a new map based on this layer.

[Create a Map](#)

Styles

The following styles are associated with this layer. Choose a style to view it in the preview map.

- ☒ (default style) A dark orange line style
- ☐ Waterway

[Refresh Attributes and Statistics of](#)

[Info](#)
[Attributes](#)
[Share](#)
[Ratings](#)
[Comments](#)
[Favorite](#)

Title waterways

License Not Specified

Abstract No abstract provided

Publication Date June 11, 2019, 4:21 a.m.

Type Vector Data

Keywords features , waterways

Regions Global

Owner johnsmith

[More info](#)

[Layer WMS GetCapabilities document](#)

Fig. 136: The Layer Page with the new Style

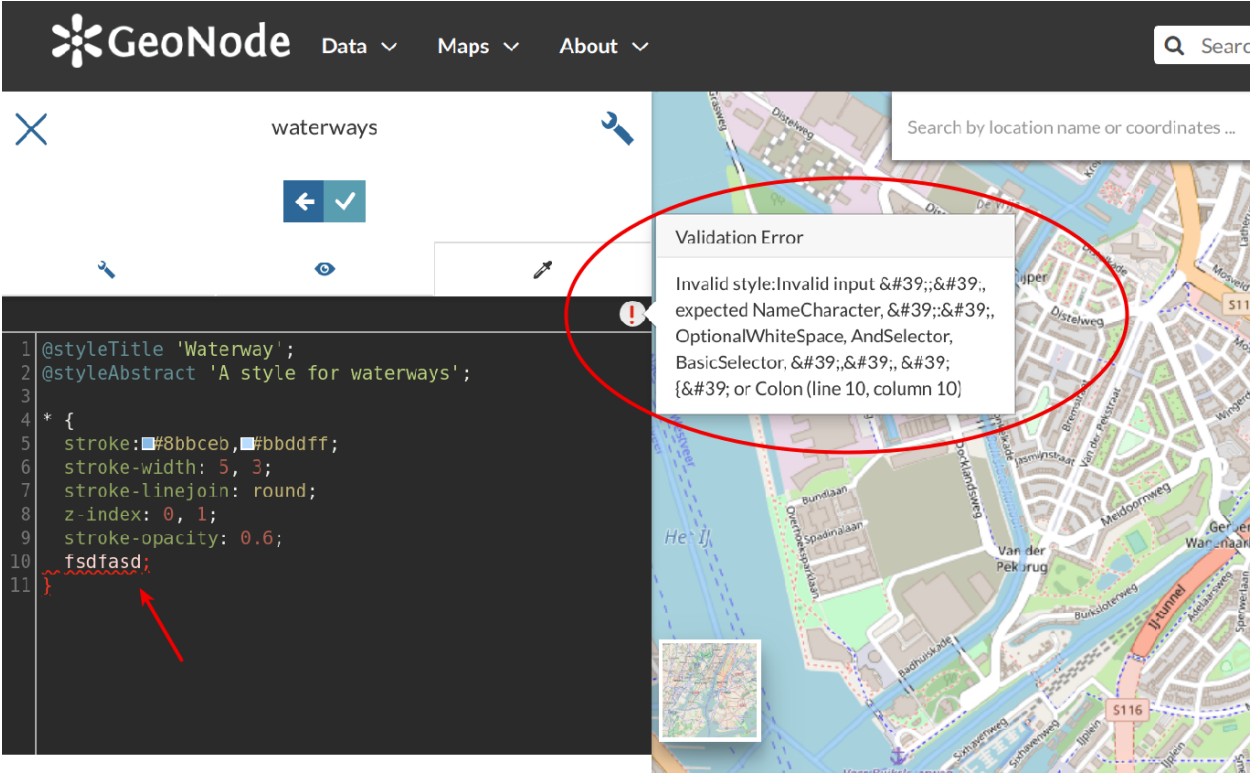


Fig. 137: The Style Editor Syntax Validation

Fig. 138: The Style Editor

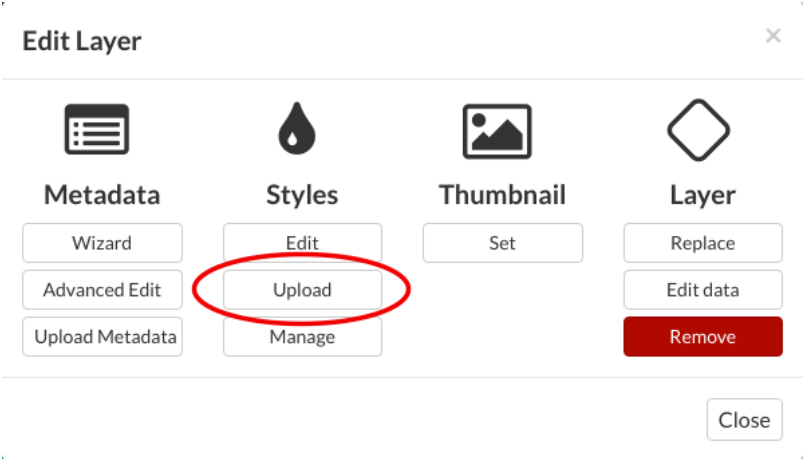


Fig. 139: Upload Styles button

Upload Layer Style (SLD - Style Layer Descriptor 1.0, 1.1) [Return to Layer](#) [Explore Layers](#)

Drop files here

or select them one by one:

[Choose Files](#)

Files to be uploaded

waterways

Style Layer Descriptor

- waterways.sld Remove

WARNING: This will most probably overwrite the current default style!

[Clear](#) [Upload files](#)

Permissions

Who can view it?

☒ Anyone

The following users:

The following groups:

Who can download it?

Who can change metadata for it?

Who can manage it? (update, delete, change permissions, publish/unpublish it)

Fig. 140: Upload Styles

Managing Styles

Given a layer, you can manage all its styles in the *Styles Management Page* accessible from the *Manage* button of the *Layer Editing* panel.

In that page you can:

- See the *Layer Name*
- Add/remove styles to/from the *Available styles* list
- Choose the *Layer Default Style* from the *Available styles* list

Click on *Update Available Styles* to save your changes.

Advanced Layer Management with MapStore

GeoNode provides the user with some advanced features for layer manipulation such as layer filtering, attribute edition and layer export in different formats. In a nutshell, these feature are provided via MapStore and we will redirect the user to MapStore specific documentation for further details.

Manage Styles

Manage Available Styles for [geonode:waterways](#)

Layer Default Style: Waterways SLD

Available styles

Click on an available style in the upper box to assign it to this layer. Selected styles appear in the lower box.

Search

- A violet polygon style
- A violet polygon style
- A teal line style
- A red polygon style
- dtv_ruta_segmentada_i
- A red line style

- orange square point style
- Waterways SLD

Update Available Styles

Fig. 141: *Managing Styles*

Filtering Layers

With GeoNode you can filter a layer via its attributes, direct map filter by drawing an area of interest over the map canvas and via cross-layer filter, allowing intersection, contained and contains overlay methods. For more detail please check the MapStore documentation [here](#).

Attribute Table

GeoNode provides tools for attribute manipulation that allows the edition and creation of new attributes with simplicity. Such set of tools provided by MapStore also allows the user to filter, search, zoom features from a table of attributes perspective like in a common GIS Desktop environment. For more detail please check the MapStore documentation [here](#).

Styling Advanced

MapStore allows for advance styling features not covered fully on previous GeoNode section. If you wish to deep your knowledge on these capabilities, please follow this [documentation link](#).

1.1.6 Managing Maps

Maps are sets of layers displayed together on an interactive web map. Maps can be composed in the map composer and saved as GeoNode resources. Maps can also be associated with metadata, ratings, and comments.

In this section, you will learn how to create a new map and share it.

Creating Maps

In this section, we'll create a *Map* using some uploaded layers, combine them with some other layers from remote web services, and then share the resulting map for public viewing.

In order to create new maps you can use:

- the *Create Map* link of the *Maps* menu in the navigation bar

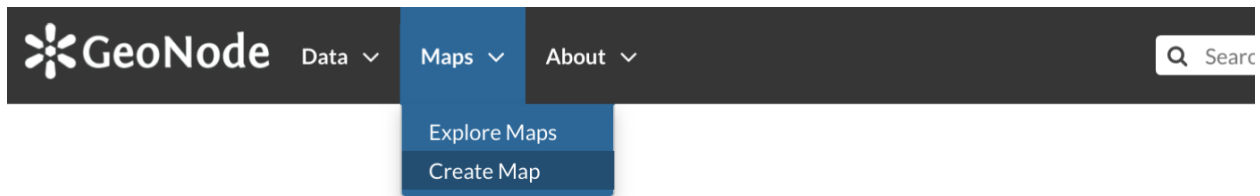







Fig. 142: The Create Map link


- the *Create Map* button in the *Layer Page* (it creates a map using a specific layer)
- the *Create New Map* button in the *Explore Maps* page

The new *Map* will open in a *Map Viewer* like the one in the picture below.

In the upper left corner the  button opens the *Table of Contents (TOC)* of the *Map*. It allows to manage all the layers associated with the map and to add new ones from the *Catalog*.

The *TOC* component makes possible to manage layers overlap on the map by shifting their relative positions in the list (drag and drop them up or down in the list).

It also allows to hide/show layers ( and ), to zoom to layers extents () and to manage their properties ().

Once the map layers have been settled it is possible to save the *Map* by clicking on  and choosing *Save as*.

If you followed the steps above, you have just created your first *Map*. Now you should see it in the *Explore Maps* page, see [Map Information](#) for further details.

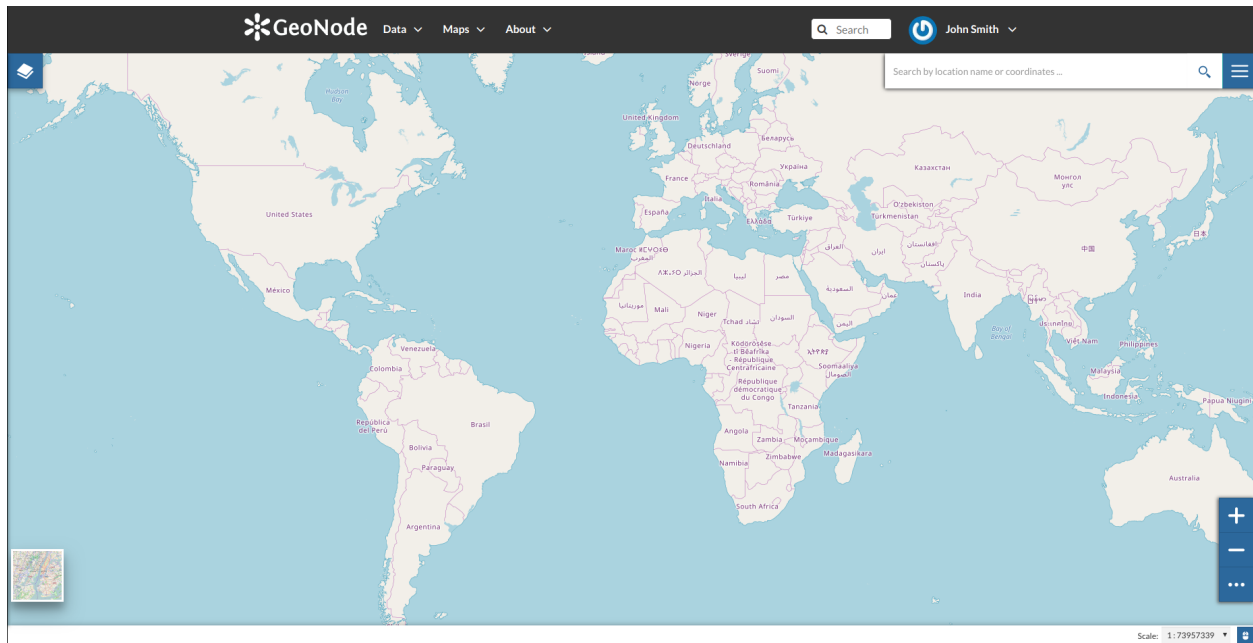
We will take a closer look at the *Map Viewer* tools in the [Exploring Maps](#) section.

The screenshot shows the GeoNode web interface. At the top is a dark navigation bar with the GeoNode logo, menu items (Data, Maps, About), a search bar, and a user profile for John Smith. Below the navigation bar, the page title is 'waterways'. The main content area features a map of Amsterdam with waterways highlighted in blue. To the right of the map is a sidebar with several buttons: 'Download Layer', 'Metadata Detail', 'Editing Tools', 'View Layer', and 'Download Metadata'. Below these buttons is a 'Legend' section showing 'Waterways SLD' and a 'Rule Title'. Further down is a 'Maps using this layer' section stating 'This layer is not currently used in any maps.' Below that is a 'Create a map using this layer' section with a button labeled 'Create a Map' circled in red. At the bottom of the sidebar is a 'Styles' section. On the left side of the map, there is a metadata panel with fields for Title, License, Abstract, Publication Date, Type, Keywords, Regions, and Owner. The 'Create a Map' button is highlighted with a red circle.

Fig. 143: The Create Map button

The screenshot shows the 'Explore Maps' page in the GeoNode interface. The top navigation bar is the same as in Fig. 143. Below the navigation bar, the page title is 'Explore Maps'. On the right side, there is a button labeled 'Create a New Map' circled in red. Below this button is a search bar and a dropdown menu. The main content area shows '0 Maps found' and 'No content created yet.' On the left side, there is a 'Selected Maps' section with a button 'Add maps through the "checkboxes"'. Below this is a 'Set permissions' button. At the bottom left, there is a 'Filters' section with a 'Clear' button and a dropdown menu showing 'TEXT'. At the bottom right, there is a pagination bar showing 'page 1 of 1'.

Fig. 144: The Create New Map button

Fig. 145: *The Map Viewer*Fig. 146: *Creating new Maps*

Map Information

As mentioned in the [Maps](#) section, in GeoNode you can see your maps and all the published maps through the *Explore Maps* link of the navigation bar.

Click on the title of the *Map* you are interested in to open its *Information* page, it should look like the following.

The *Map Page* is divided into three main sections:

1. the *Map Preview* section, under the title
2. the *Tabs* section, under the layer preview
3. the *Tools* section, on the right side of the page

Map Preview

The *Map Preview* shows the *Map* with very basic functionalities:

- the *Base Map Switcher* that allows you to change the base map;
- the *Zoom in/out* tool to enlarge and decrease the view;
- the *Zoom to max extent* tool for the zoom to fit the layers extents;
- the *Query Objects* tool to retrieve information about the map objects by clicking on the map;
- the *Print* tool to print the preview.

See the [MapStore Documentation](#) to learn more.

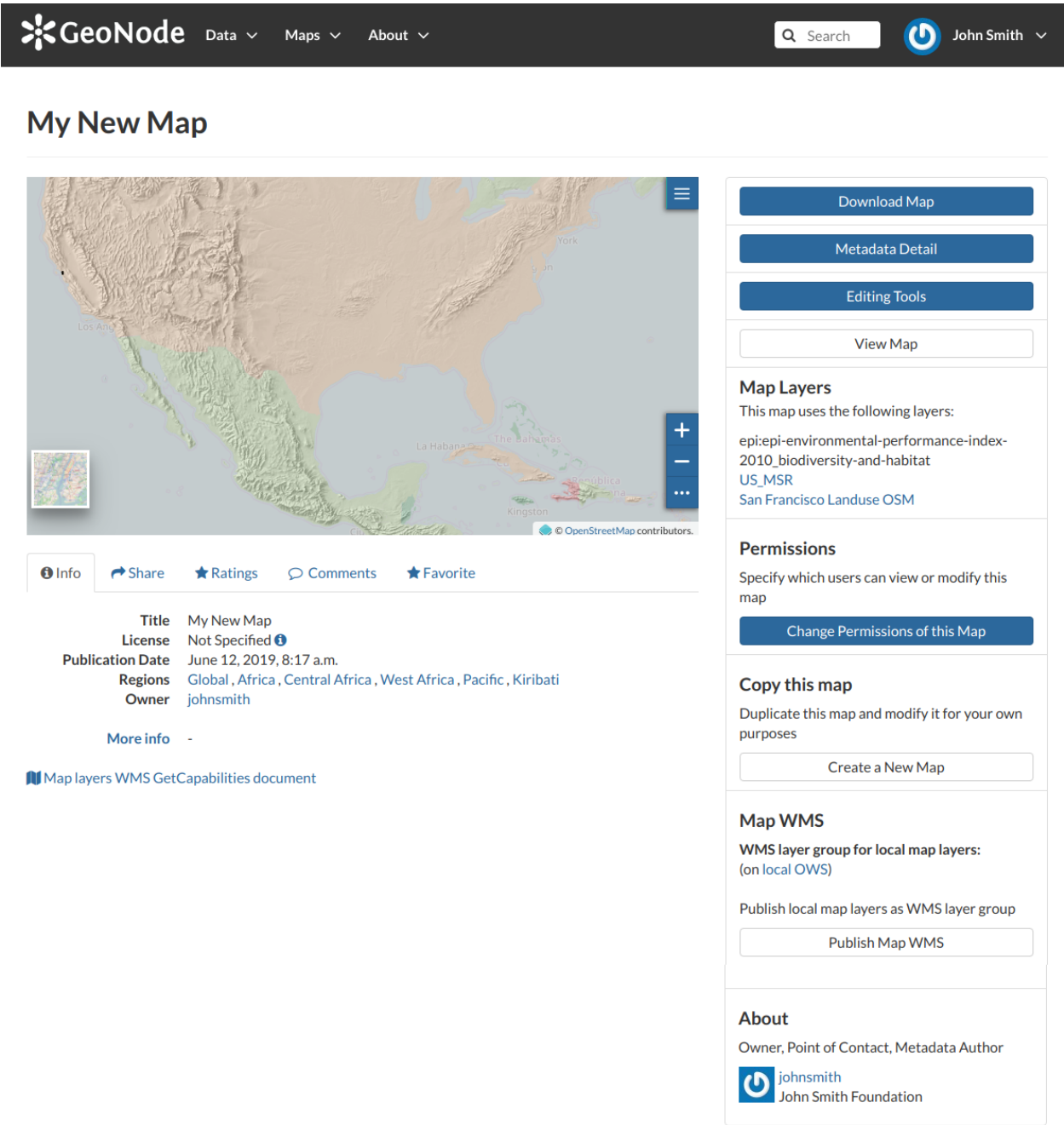


Fig. 147: The Map Information page

Fig. 148: Map Preview

Tabs Sections

The *Map Information* page shows you some tabs sections containing different information about the map:

- The tab *Info* is active by default. This tab section shows some metadata such as its Title, the License, the Publication Date etc. The metadata also indicates the map owner and which regions are involved. The Map Layers WMS GetCapabilities document link is also provided.

Title	My New Map
License	Not Specified ⓘ
Publication Date	June 12, 2019, 8:17 a.m.
Regions	Global , Africa , Central Africa , West Africa , Pacific , Kiribati
Owner	johnsmith
More info	-
Language	English
Supplemental Information	No information provided

[Map layers WMS GetCapabilities document](#)

Fig. 149: *Maps Info tab*

- The *Share* tab provides the links for the map to share through social media or email.

Share This Map

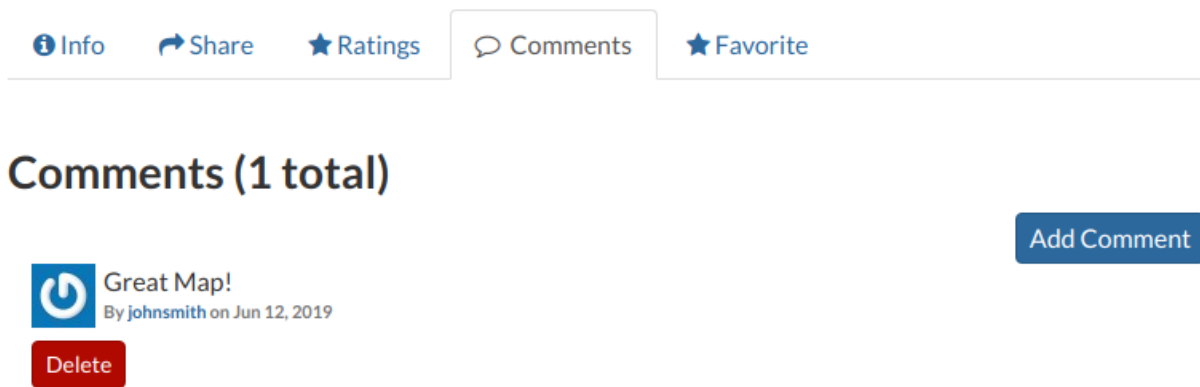
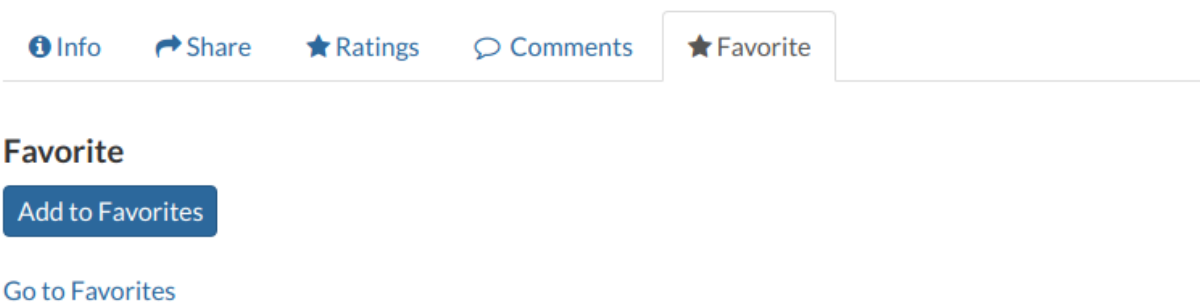
- [Email](#)
- [Facebook](#)
- [Twitter](#)
- [Google +](#)

Fig. 150: *Map Sharing*

- You can *Rate* the map through the *Rating system*.
- In the *Comments* tab section you can post your comment. Click on *Add Comment*, insert your comment and click *Submit Comment* to post it.

Your comment will be added next to the last already existing comment. If you want to remove it click on the red *Delete* button.

- If you want this map in your *Favorites* (see *Updating the Profile*), open the *Favorite* tab and click on *Add to Favorites*.

Fig. 151: *Map Rating*Fig. 152: *Map Comments*Fig. 153: *Your Favorite Maps*

Map Tools

In the right side of the *Map Information* page there are some tools that can help you to manage your maps. In this paragraph you will learn how to discover and retrieve information about maps.

The following is a list of actions you can take in order to accomplish this task:

- click the *Download Map* button, to download the map as image;
- click the *Metadata Detail* button to see the map metadata, see [Maps Metadata](#);
- click the *Editing Tools* button to access to many editing tools. Those functionalities will be explained in the [Exploring Maps](#) section;
- click the *View Map* button to open the map, see the [Exploring Maps](#) section for more details;
- see the *Map Layers* section to know which layers are used by the map (you can open the *Layer Page* by clicking on its name, available only for local layers);
- click the *Create a Map* button of the *Copy this map* section to duplicate the map;
- click the *Publish Map WMS* of the *Map WMS* section to publish local map layers as WMS layer group;
- see the *About* section to know the map *Owner*, the *Contact* user and the *Metadata Author*.

Maps Metadata

Maps Metadata can be explored by clicking the *Metadata Detail* button from the *Map Information* page.

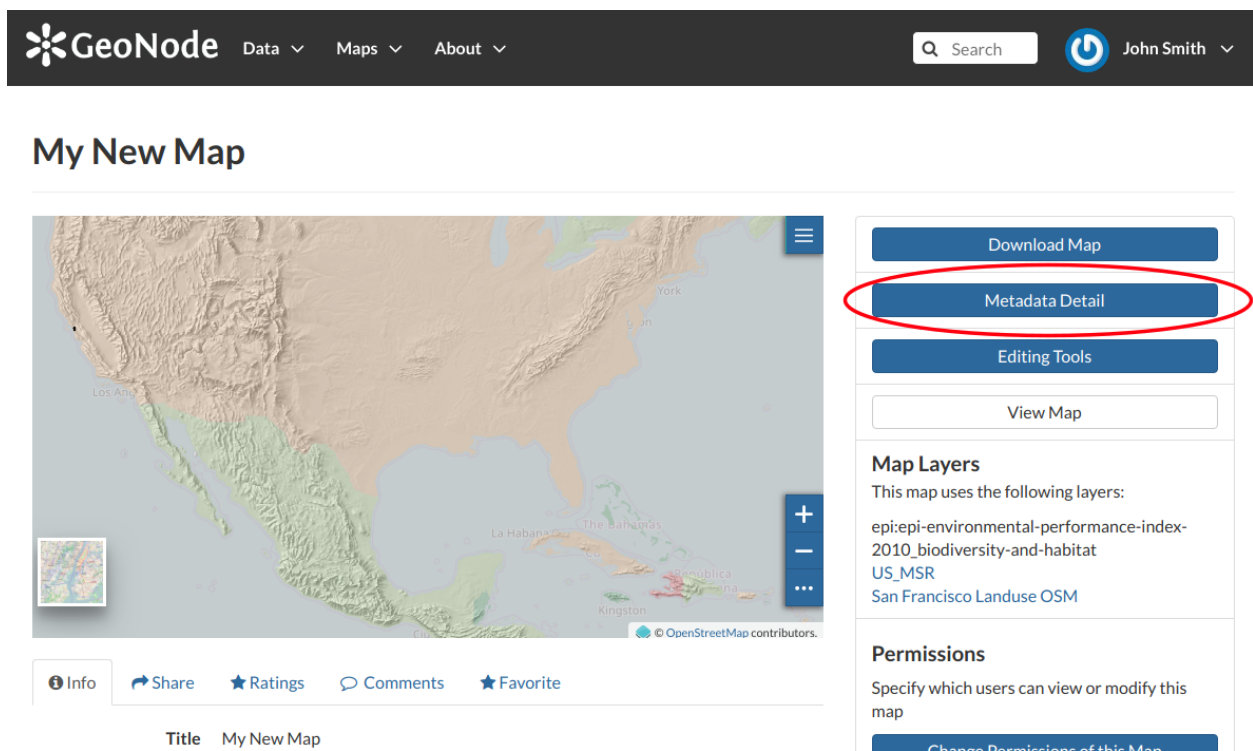





Fig. 154: The Map Metadata Detail button

The *Map Metadata* page will open.


Data ▾
Maps ▾
About ▾




John Smith ▾

Metadata : My New Map Return to Map


Identification

Title	My New Map
License	Not Specified ⓘ
Publication Date	June 12, 2019, 8:17 a.m.
Regions	Global, Africa, Central Africa, West Africa, Pacific, Kiribati
Approved	Yes
Published	Yes
Featured	No

Owner

Name	John Smith (johnsmith)
email	john.smith@mail.com
Position	CEO and Founder
Organization	John Smith Foundation
Location	John Smith Avenue 12345 John Smith City John Smith District ZAF
Voice	123456789
Fax	987654321

Information

Identification Image	
Spatial Extent	---
Projection System	EPSG:3857
Extension x0	-20037397.023299999535084
Extension x1	666726.142827000003308
Extension y0	-5787726.067250000312924
Extension y1	20037397.023299999535084

Features

Language	English
Supplemental Information	No information provided

Contact Points

Name	John Smith (johnsmith)
email	john.smith@mail.com
Position	CEO and Founder
Organization	John Smith Foundation
Location	John Smith Avenue 12345 John Smith City John Smith District ZAF
Voice	123456789
Fax	987654321

References

Link Online	/maps/47
Metadata Page	/maps/47/metadata_detail

Metadata Author

Name	John Smith (johnsmith)
email	john.smith@mail.com
Position	CEO and Founder
Organization	John Smith Foundation
Location	John Smith Avenue 12345 John Smith City John Smith District ZAF
Voice	123456789
Fax	987654321

Lots of information are displayed in this page. Those information are grouped as follow:

- *Identification* to uniquely identify the map (Title, License, Publication Date and Regions. There are also some flags which tell you the state of the map, in particular if it is Approved and/or Published);
- the map *Owner*;
- *Information*, the Identification Image, the Spatial Extent, the Projection System and the Extent;
- *Features*, Language, Supplemental and other Information;
- *Contact Points*, the available user to get in contact;
- *References*, links to the map and its metadata;
- *Metadata Author*, information about the author of the metadata.

Metadata Wizard

Metadata provide essential information for the identification and the comprehension of the map. They also make the map more easily retrievable through the search tools.

Those *Metadata* can be filled out through a three-steps *Wizard* in which you have to provide all mandatory information to complete the process. Those three steps are described below.

• Basic Metadata

In the first step the system asks you to insert the following metadata (required fields are highlighted with red outlines):

- The *Thumbnail* of the map (click *Edit* to change it);
- The *Title* of the map, which should be clear and understandable;
- An *Abstract*; brief narrative summary of the content of the Map

Note: The *Abstract* panel allows you to insert HTML code through a *wysiwyg* text editor

- The *Creation/Publication/Revision Dates* which define the time period that is covered by the map;
- The *Keywords*, which should be chosen within the available list;
- The *Category* which the map belongs to;
- The *Group* which the map is linked to.

Click *Next >>* to go to the next step.

• Location and Licenses

The following list shows what kinds of metadata you are required to enter (see also the picture below):

- The *Language* of the layer;
- The *License* of the dataset;
- The *Regions* covered by the layers extent. Proposed extents cover the following scales: global, continental, regional, national;
- The *Data Quality statement* (general explanation of the data producer's knowledge about the lineage of a dataset);
- Potential *Restrictions* on layer sharing.

Metadata for My New Map

Completteness

✖Check Schema mandatory fields

50%

Edit

Settings

Mandatory


Mandatory

Optional

1

Basic Metadata

Thumbnail



Edit

2

Location and Licenses

Title


My New Map

Abstract

File Edit View Insert Format Tools

Table Help

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asdasd

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3

Optional Metadata

Free-text Keywords

Date type

Publication

Date

2020-11-20 12:12

Category

Group

Fig. 156: Basic Map Metadata

Metadata for My New Map

Completeness

✖Check Schema mandatory fields

50%

Edit

Settings

Mandatory

Mandatory

Optional

1

2

3

Basic Metadata

Location and Licenses

Optional Metadata

Language

English

License

Not Specified

DOI

* Field declared Mandatory by the Metadata Schema

Attribution

* Field declared Mandatory by the Metadata Schema

Regions

✖ Global

Data quality statement

File Edit View Insert Format Tools

Table Help

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P 0 WORDS POWERED BY TINY

* Field declared Mandatory by the Metadata Schema

Restrictions

* Field declared Mandatory by the Metadata Schema

Other constraints

File Edit View Insert Format Tools

Table Help

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P 0 WORDS POWERED BY TINY

<< Back

Update

Next >>

Fig. 157: Location and Licenses Metadata for Maps

No further mandatory metadata are required in the next step so, once the required fields have been filled out, a green *Done* button will be visible in the screen. Click *Next >>* to go to the next step or *<< Back* to go back to the previous step.

- **Optional Metadata**

Metadata for My New Map

Completeness
 ✖ Check Schema mandatory fields
 50%

Edit Settings

Mandatory Mandatory Optional

1 2 3

Basic Metadata

Other, Optional, Metadata

Edition

Purpose

File Edit View Insert Format Tools

Table Help

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Supplemental information

File Edit View Insert Format Tools

Table Help

↶ ↷ B I U \$...

No information provided

Location and Licenses

temporal extent start temporal extent end

Maintenance frequency

Spatial representation type

Optional Metadata

Responsible Parties

Point of Contact

admin x

Responsible and Permissions

Owner

admin x

Metadata Author

admin x

Fig. 158: *Optional Map Metadata*

Complementary information are:

- The *Edition* of the map;
- The *Purpose* of the map and its objectives;
- Any *Supplemental information* that can provide a better understanding of the map;

- The *Maintenance frequency* of the map;
- The *Spatial representation type*, the method used to represent geographic information in the dataset;
- The users who are *Responsible* for the layer, its *Owner*, and the *Author* of its metadata;

If you miss some mandatory metadata the *Completeness* bar shows you a red message like the one in the picture below.

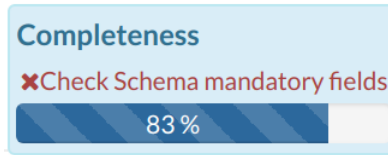


Fig. 159: *Completeness Progress Bar*

Metadata Advanced Editing

The *Advanced Edit* editing tool allows to change the map metadata. You can find this button into the map *Editing Tools*.

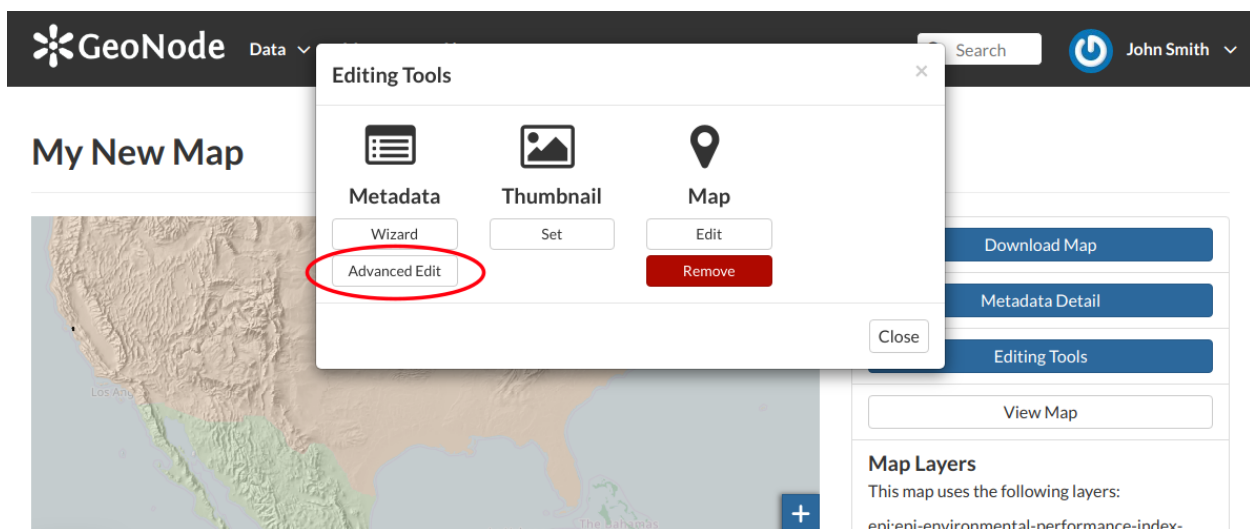


Fig. 160: *The Advanced Edit button*

Click on it to display the *Metadata Advanced Editing Page*. That page allows you to edit all the layer metadata described in the previous paragraph. Once you have finished to edit them click on *Update* to save your changes.

Changing the Map Permissions

In the *Map Information* section of this guide we said that you can see your maps and all the published maps. In GeoNode the permissions management system is indeed more complex. Administrators can choose who can do what for each map. Users can manage only the maps they own or the maps which they are authorize to manage.

By default only owners can edit and manage maps, anyone can view and download them.

In order to modify the *Map Permissions* settings you have to click the *Change the Layer Permissions* button in the *Map Page*.

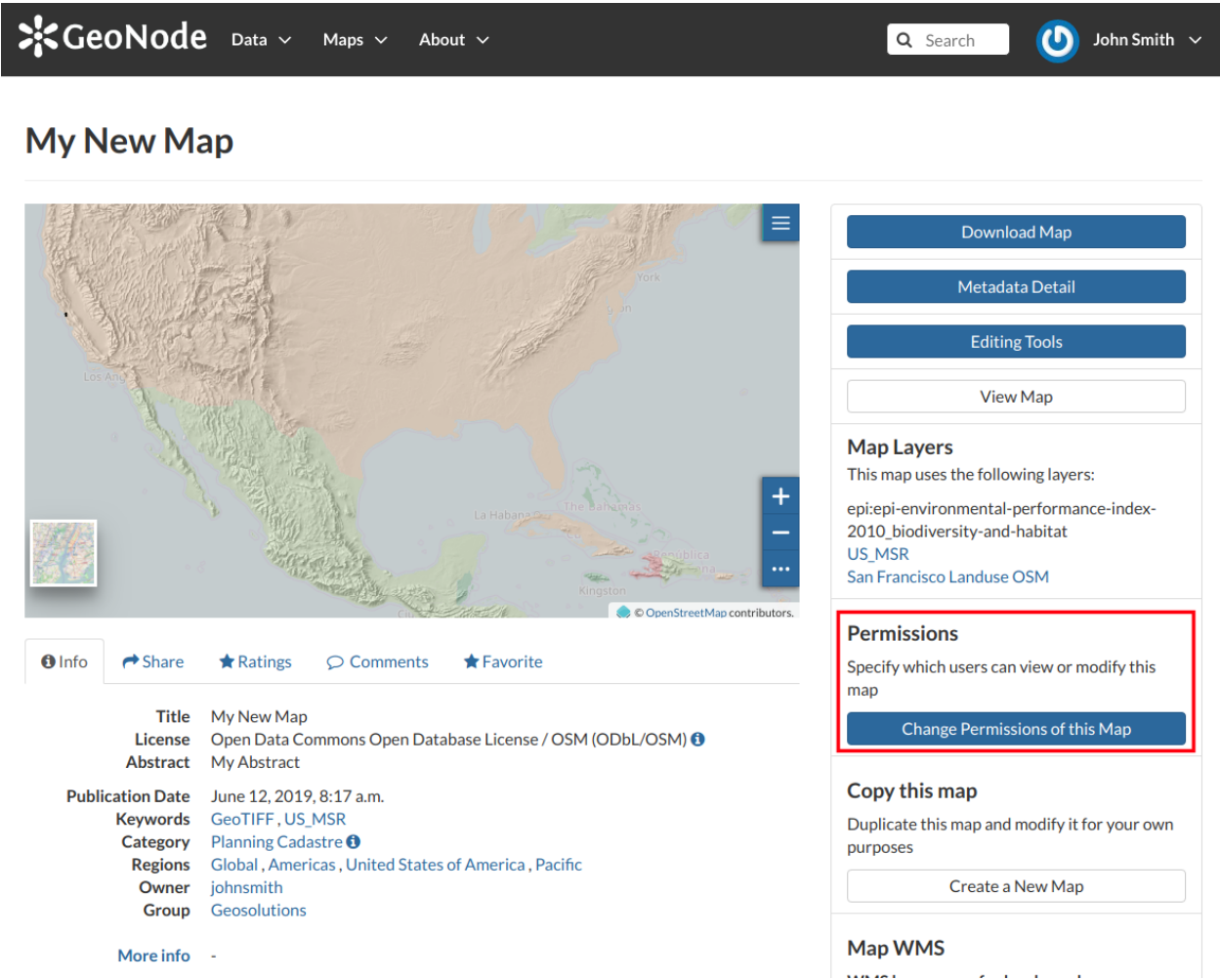


Fig. 161: *Change Map Permissions*

Through the *Permissions Settings Panel* you can add or remove permissions for users and groups. The picture below shows an example.

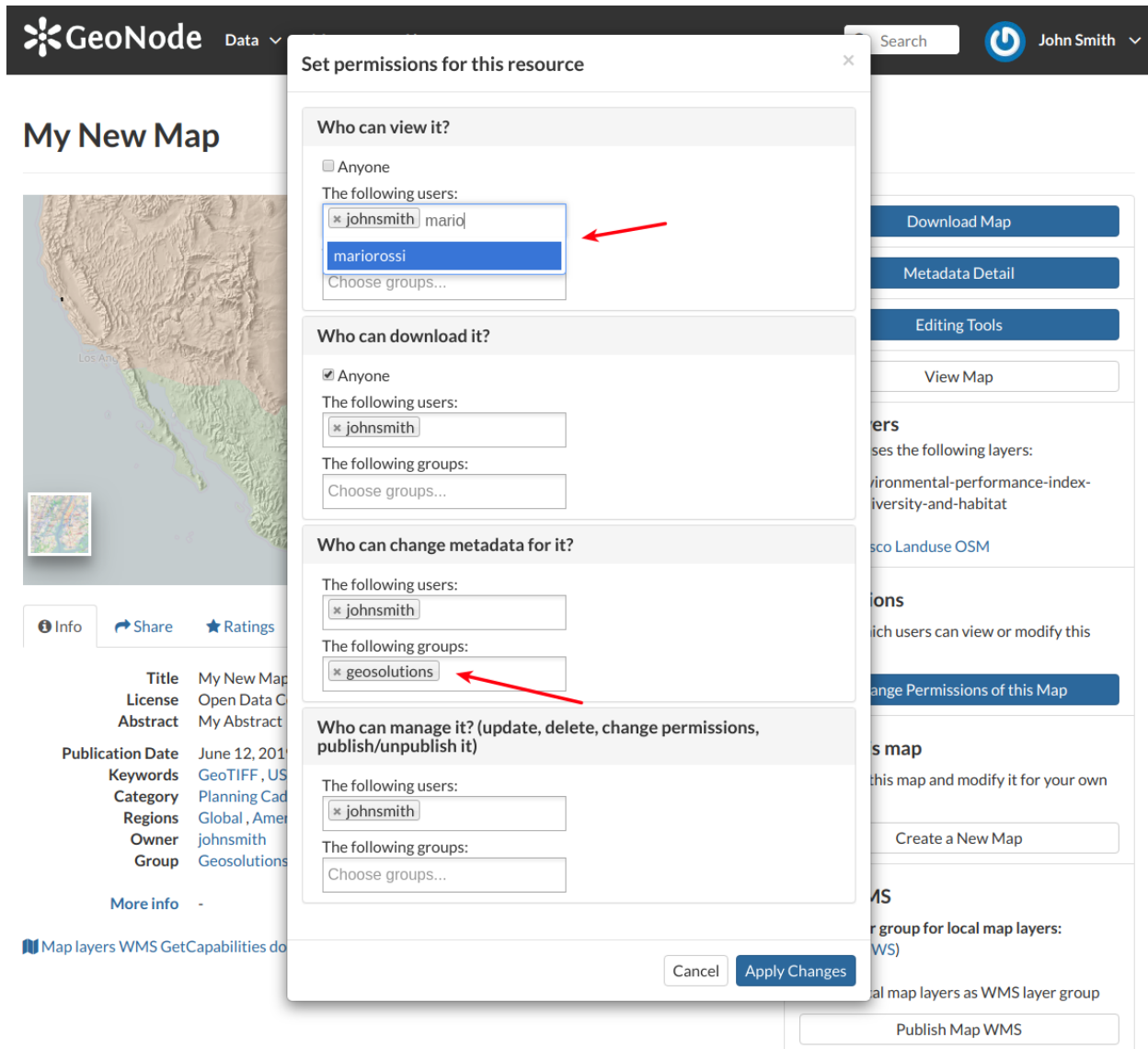


Fig. 162: Map Permissions settings for users and groups

You can set the following types of permissions:

- *View* allows to view the map;
- *Download* allows to download the map;
- *Change Metadata* allows to change the map metadata;
- *Manage* allows to update, delete, change permissions, publish and unpublish the map.

Warning: When assigning permissions to a group, all the group members will have those permissions. Be careful in case of editing permissions.

Click on *Apply Changes* to save these settings.

Exploring Maps

From the *Explore Maps* link of the navigation bar you can reach the *Maps List* page (see [Maps](#)). Select a map you are interested in and click on it, the *Map Page* will open.

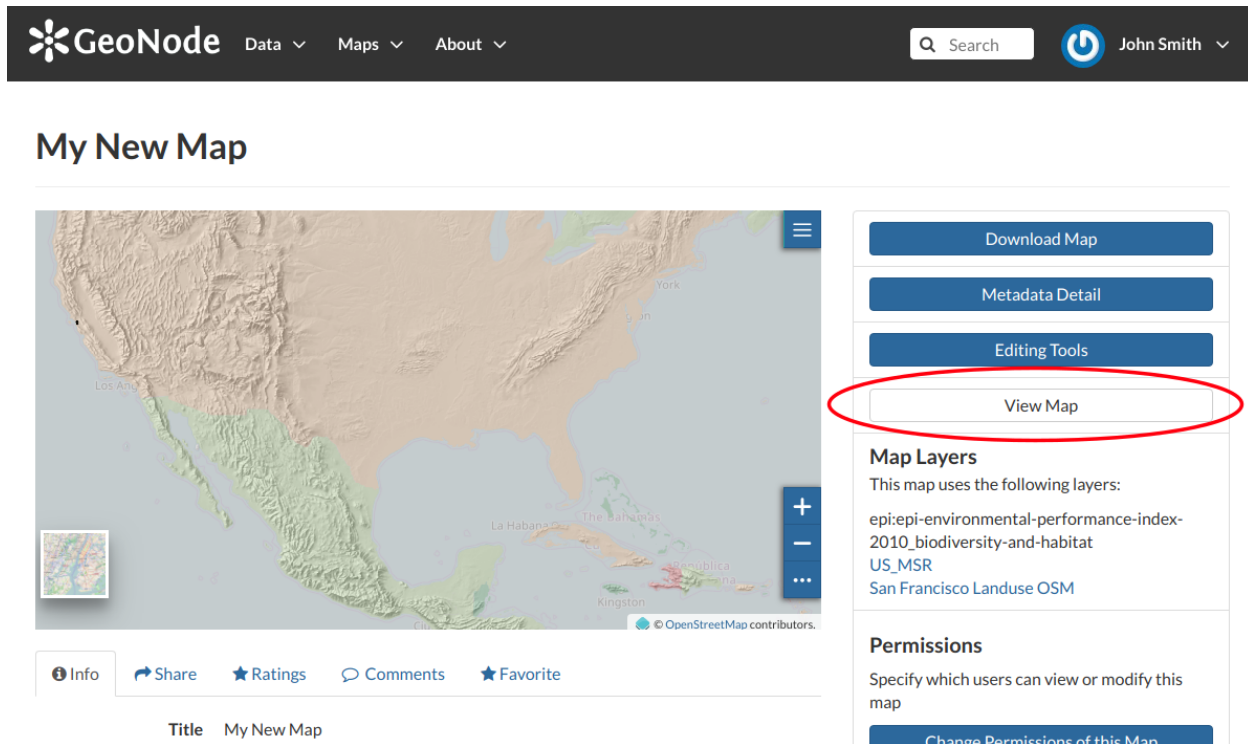


Fig. 163: The *View Map* button

Click on the *View Map* button to open the *Map Viewer*.

The Map Viewer (based on [MapStore](#)) provides the following tools:

- the *Table of Contents (TOC)* to manage the map contents;
- the *Basemap Switcher* to change the basemap (see the next paragraphs);
- the *Search Bar* to search by location, name and coordinates (see the paragraph below);
- the *Options Menu Tools* which contains the link to the *Print* tool, to the layers *Catalog* and to the *Measure* tool;
- the *Sidebar* and its tools such as the *Zoom* tools and the *Get Features Info* tool;
- the *Footer Tools* to manage the scale of the map, to track the mouse coordinates and change the CRS (Coordinates Reference System).

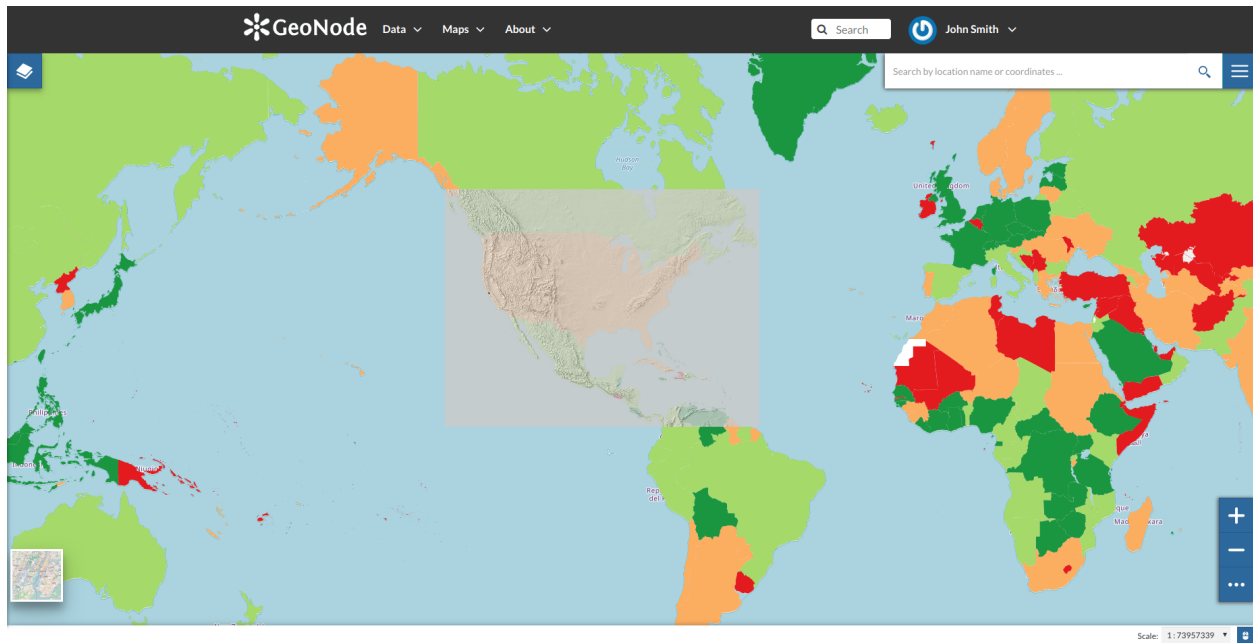





Fig. 164: The Map View

Table of Contents (TOC)





In the upper left corner, click on  to open the *Table Of Contents*, briefly *TOC* from now on, of the map. The *TOC* shows all the layers involved with the *Map* and allows to manage their properties and representations on the map.

From the *TOC* you can:

- manage the layers *Overlap*;
- filter the layers list by typing text in the *Filter Layers* field;
- add new layers from the *Catalog* by clicking the *Add Layer* button;
- manage the layers properties such as *Opacity* (scroll the opacity cursor), *Visibility* (click on  to make the layer not visible, click on  to show it on map);
- manage the *Layer Settings*, see the next paragraph.

Select a *Layer* from the list and click on it, the *Layer Toolbar* should appear in the *TOC*.

The *Toolbar* shows you many buttons:

-  allows you to zoom to the layer extent;
-  drives you through the layer settings customization (see the next paragraph);
-  to explore the features of the layer and their attributes (more information at *Attributes Table*);
-  to delete layers (click on *Delete Layer* to confirm your choice);

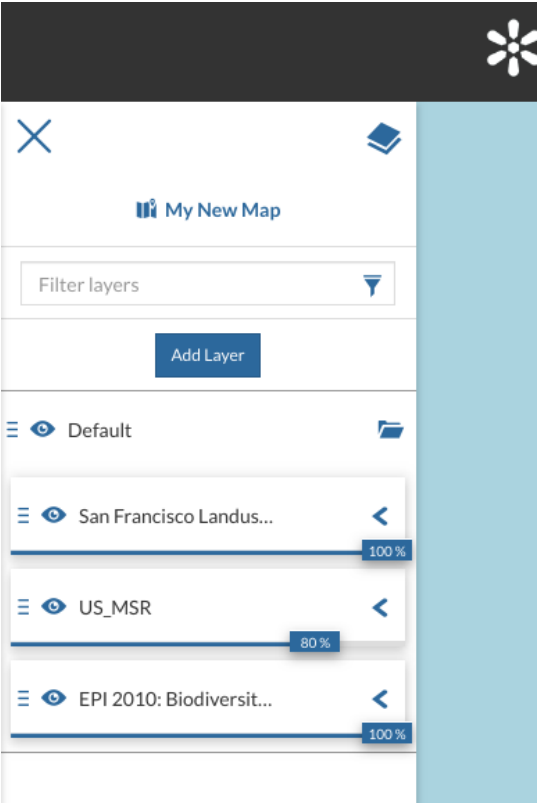


Fig. 165: *The Table Of Contents (TOC)*

Fig. 166: *Scrolling the Layer Opacity*

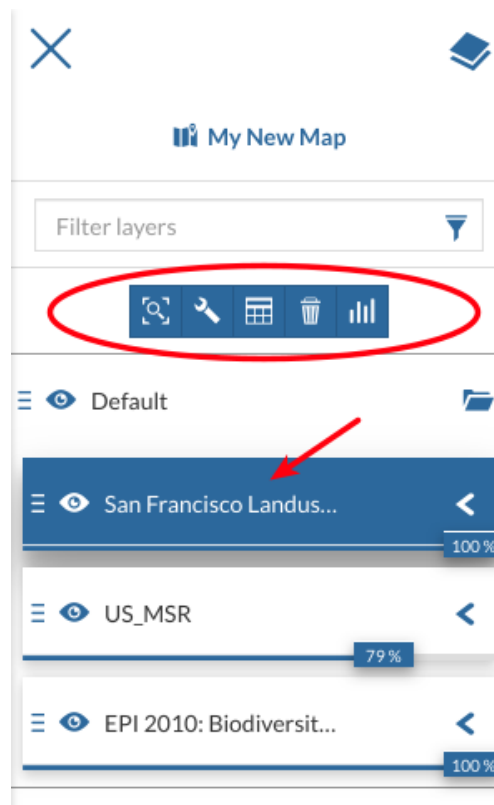


Fig. 167: The Layer Toolbar

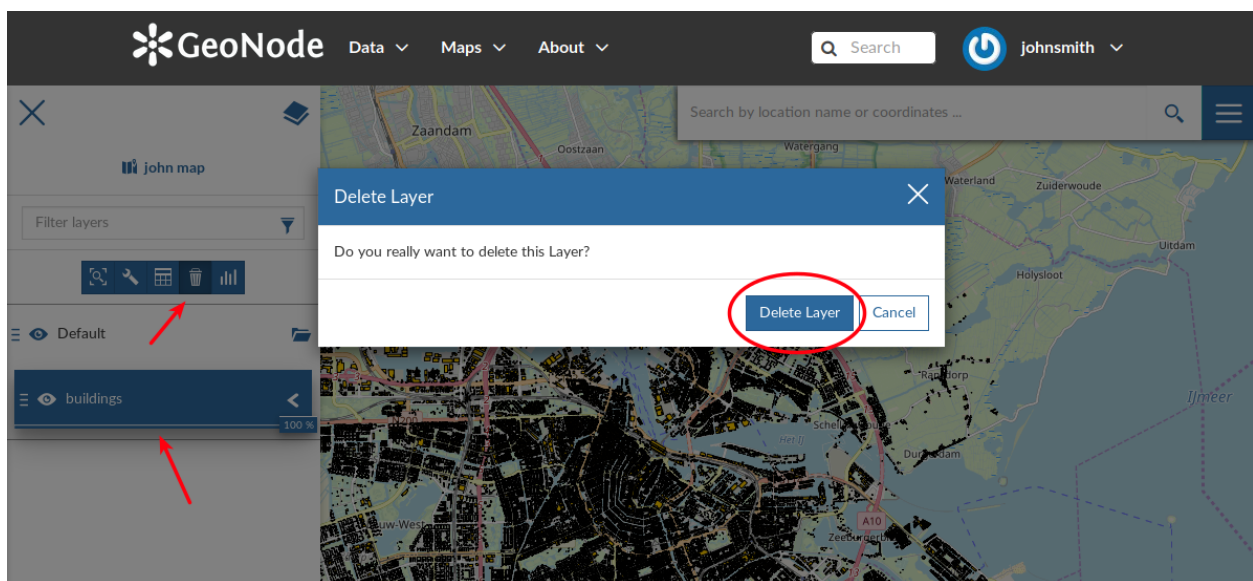

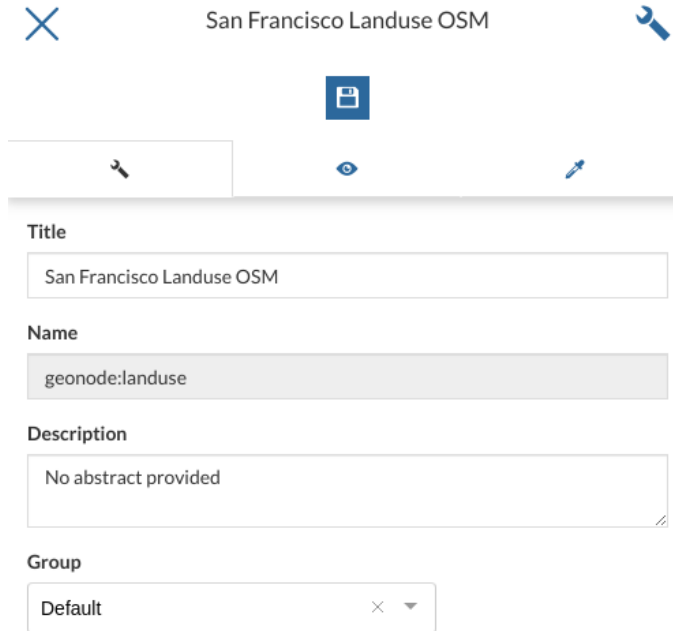


Fig. 168: Deleting Layers

-  to create *Widgets* (see *Creating Widgets*).

Managing Layer Settings

The *Layer Settings* panel looks like the one below.



San Francisco Landuse OSM

Title

San Francisco Landuse OSM

Name

geonode:landuse

Description

No abstract provided

Group

Default

Fig. 169: *The Layer Settings Panel*

The *Layer Settings* are divided in three groups:

1. *General* settings
2. *Display* settings
3. *Style* settings

In the **General** tab of the *Settings Panel* you can customize the layer *Title*, insert a *Description* and change/create the *Layer Group*.

Click on the **Display** tab to see what are the layer appearance properties you can configure.

The *Format* field allows you to change the output format of the WMS requests.

You can set a numeric value of *Opacity* using the corresponding input field.

You can also set the layer as *Transparent*, decide to *Use cache options* and to use *Single Tile*.

The third tab is the **Style** one. By clicking on it, an advanced *Style Editor* allows you to create new styles and to modify or delete an existing one. See the *Layer Styling* section to read more.

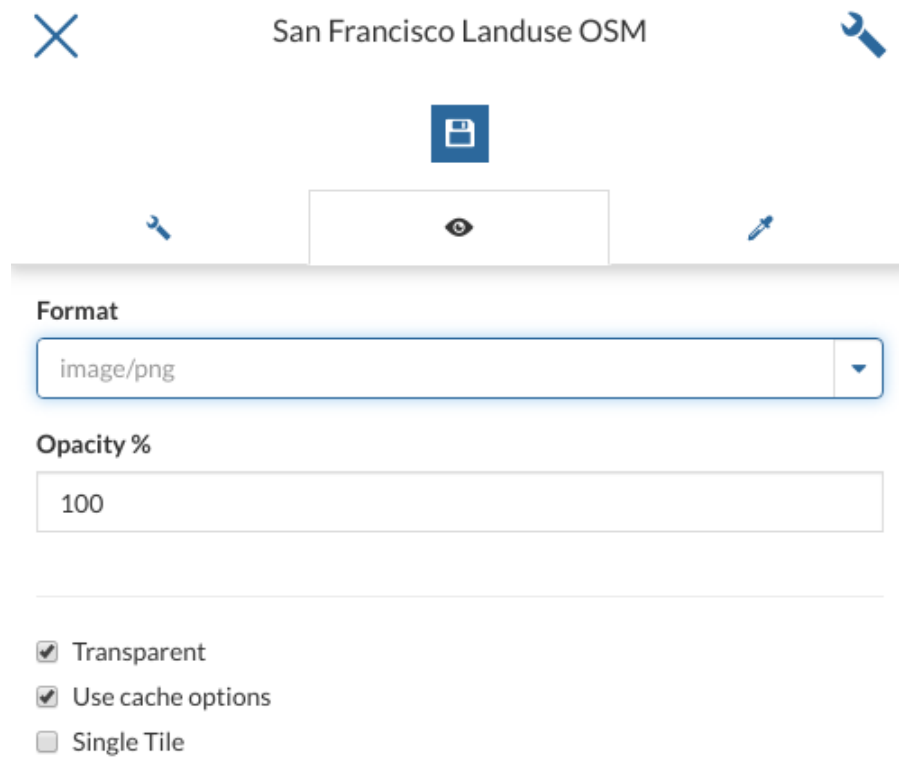


Fig. 170: *The Layer Display Settings Panel*

Attributes Table

When clicking on the  button of the *Table of Contents (TOC)*, the *Attributes Table* panel opens at the bottom of the *Map* page.

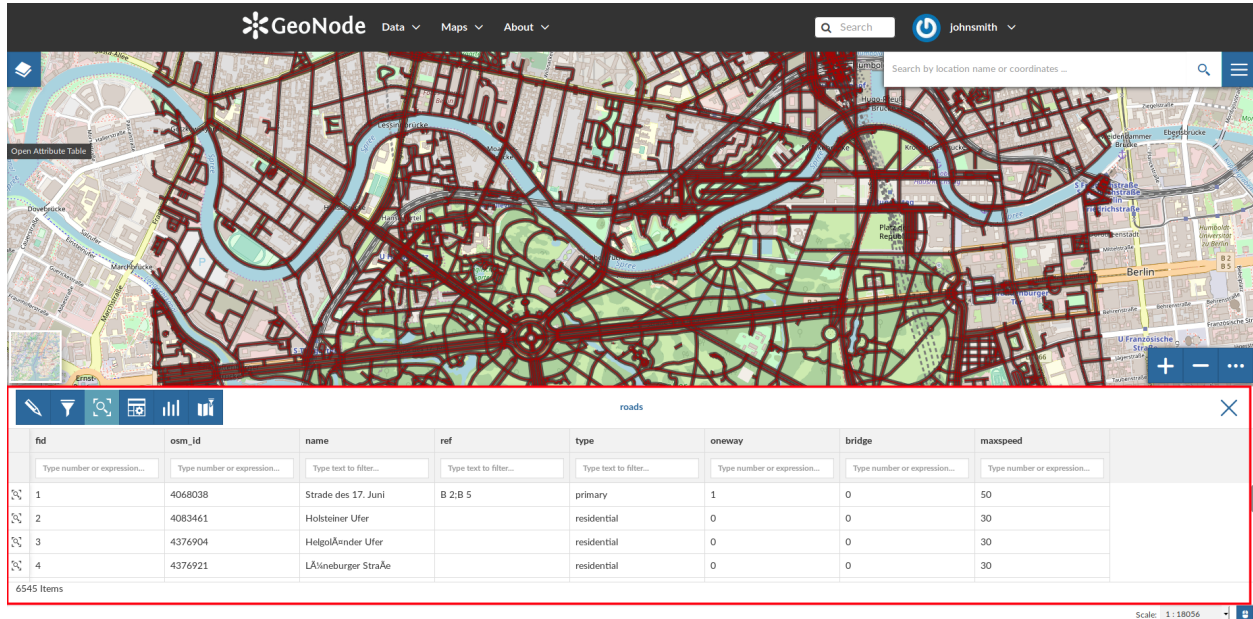



Fig. 171: The Attributes Table Panel

In that panel you can navigate through the features of the layer, zoom to their geometries by clicking on the  icon and explore their attributes.


The *Attribute Tables* has a row for each feature belonging to the layer and a column for each attribute that describes the feature.

Each column has a *Filter* input field through which you can filter the features basing on some value or expression (depending on the data type of the field).


The *Attributes Table* panel contains a *Toolbar* which makes you available some useful functionalities.

Those functionalities are:

- *Edit Mode*

By clicking on  you can start an editing session. It permits you to add new features, to delete or modify the existing ones, to edit geometries. See the layer-data-editing section for further information.

- *Advanced Search*

Click on , a new panel opens. That panel allows you to filter features in many different ways. This functionality will be explained in depth in the *Advanced Search* section.

- *Zoom to page extent*

Click on  to zoom to the page extent.

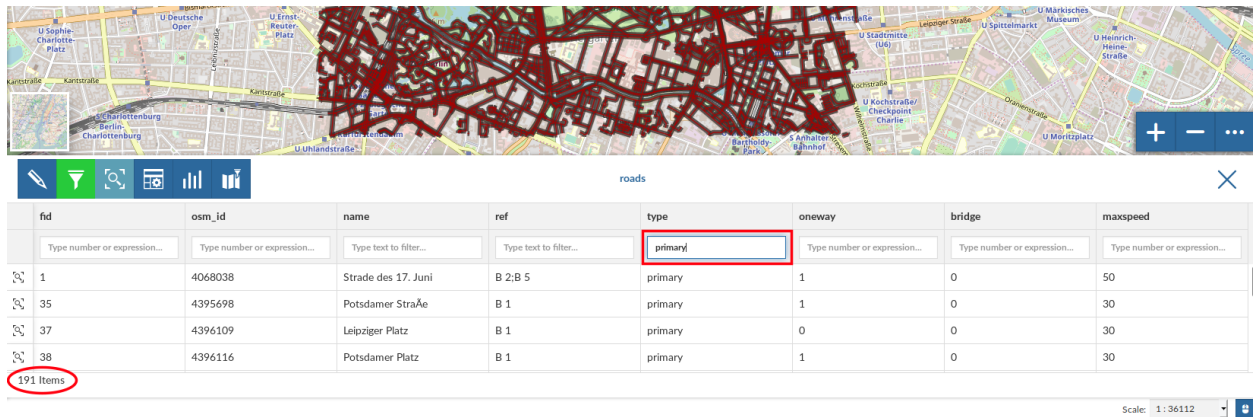


Fig. 172: Filtering Features by Attribute

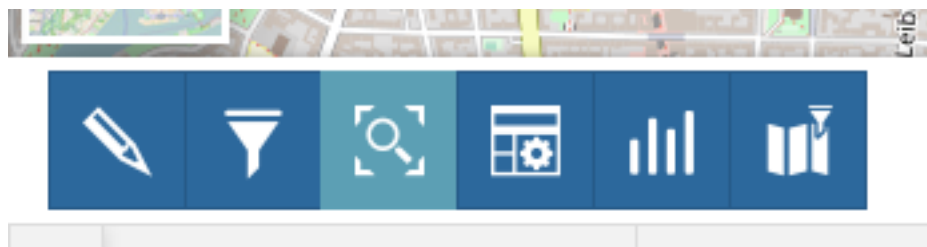


Fig. 173: The Attributes Table Toolbar

- *Hide/show columns*



When clicking on  another panel opens inside the *Attributes Table*. Through that panel you can choose what columns you want to see, see the picture below.

Fig. 174: Hide/Show Columns of the Attributes Table


- *Create a chart*




Through the  button you can open the *Chart Widgets* panel where many functionalities to describe and visualize the layer data are available (see [Creating Widgets](#)).




- *Sync map with filter*


Click on the  icon to synchronize the map with the filter.



Advanced Search


As mentioned before, GeoNode allows both an attribute based and spatial filtering. When clicking on  from the layer *Attributes Table* the *Advanced Search* panel opens and shows you three different filtering functionalities:

- In the **Attribute Filter** section you can compose a series of conditions about the attributes of the layer. Click on  to insert a new empty condition. Select the attribute you are interested in, select an operator and type a comparison value. You can group conditions through the *Add Group*  button. Click on  to perform




Attribute Filter


Match any of the following conditions:


Region of interest

Filter Type

Select...

Geometric Operation

Intersects

Layer filter

Target layer



Select layer

Fig. 175: Advanced Search

the search.

Fig. 176: Filtering by Attributes

You can also decide if *All* the conditions have to be met, if only *Any* or *None* of them (see the red arrow in the picture above).

- The **Region of interest** filtering allows you to filter features that have some relationship with a spatial region that you draw on the map.
Select the *Filter Type* (Circle, Viewport, Polygon or Rectangle), draw the spatial region of interest on the map, select a *Geometric Operation* (Intersects, Bounding Box, Contains or Is contained) and then click on .
- Through the **Layer Filter** you can select only those features which comply with some conditions on other layers of the map. You can also add conditions on attributes for those layers.

You can read more about the *Attributes Table* and the *Advanced Search* on the [MapStore2 Documentation](#).

Creating Widgets


Widgets are graphical elements that describe the layers data. They can be of different types such as *Charts*, *Texts*, *Tables* and *Counters*. Through the  button of the *Table of Contents (TOC)* you can open the *Widgets* panel.

Chart Widgets

Chart Widgets are graphical representations of the layer data. They can be *Bar Chart*, *Pie Chart* or *Line Chart* as shown in the picture below.

Lets create a new **Bar Chart**.

Click on *Bar Chart* then select the *X Attribute*, the *Y Attribute*, the *Operation* and the *Color* do you prefer. You can also display the *Legend*, *Hide the Y axis*, *Hide the grid* and decide what *Label* display into the legend.

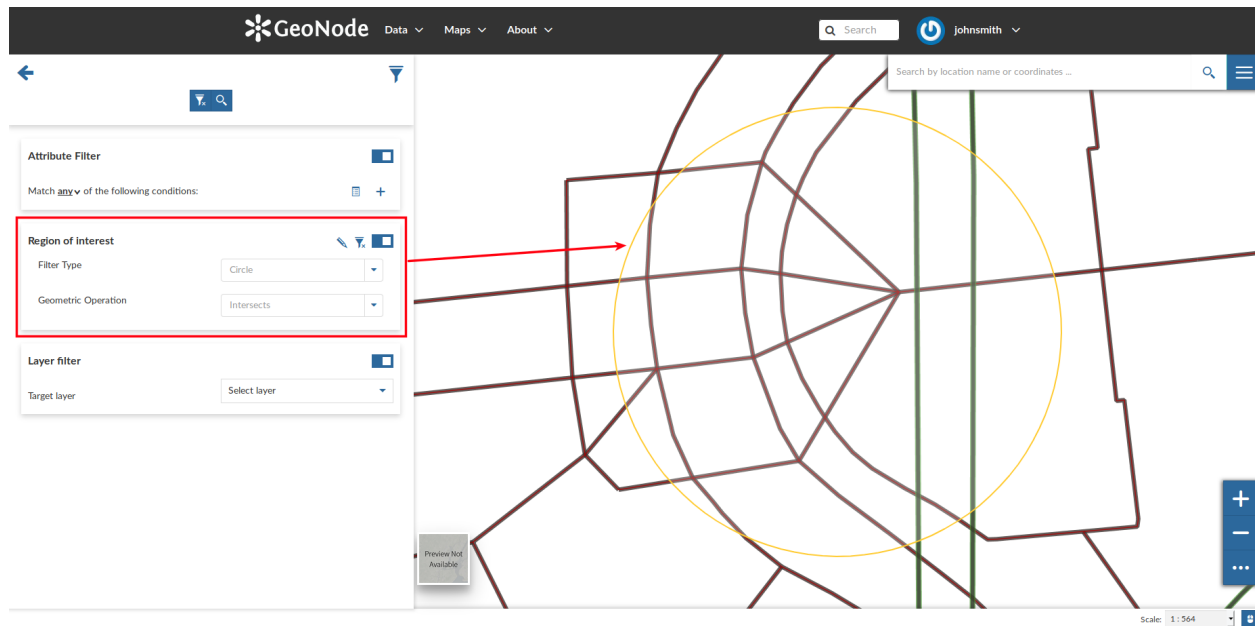


Fig. 177: Filtering by Region Of Interest

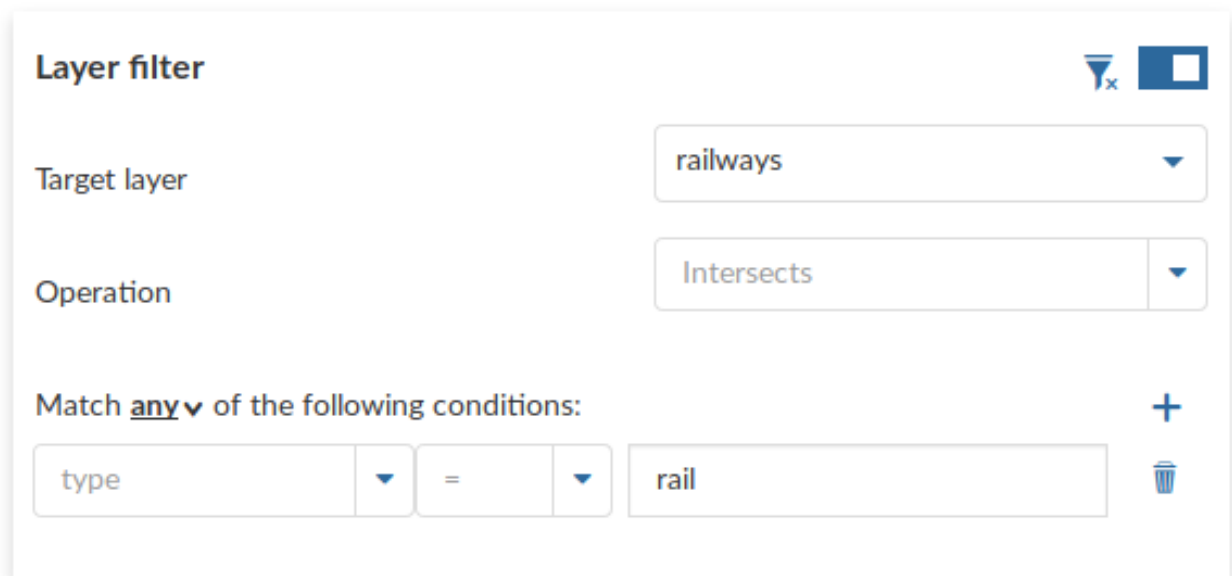


Fig. 178: Layer Filtering



Widget



Select the widget type



Chart

add a chart



Text

add a text area



Table

add a table



Counter

add a counter

Fig. 179: *Creating Widgets*



Widget



Select the Chart type



Bar Chart

Create a bar chart to add to the map

bar



Pie Chart

Create a pie chart to add to the map

pie



Line Chart

Create a line chart to add to the map

line

Fig. 180: *Chart Widgets*





Now you can filter the data to be considered for the chart by clicking on . We don't need any filter so click  to configure other widget options. Insert a *Title* and a *Description* and click on *Save* .

Fig. 181: Chart Widgets Creation

The green  icon means that the chart is connected to the viewport.

Expanding the options menu of the widget you can *Show the plotted data*, *Edit* the widget or *Delete* it, *Download* the data as a CSV file or *Export* the image of the graph.

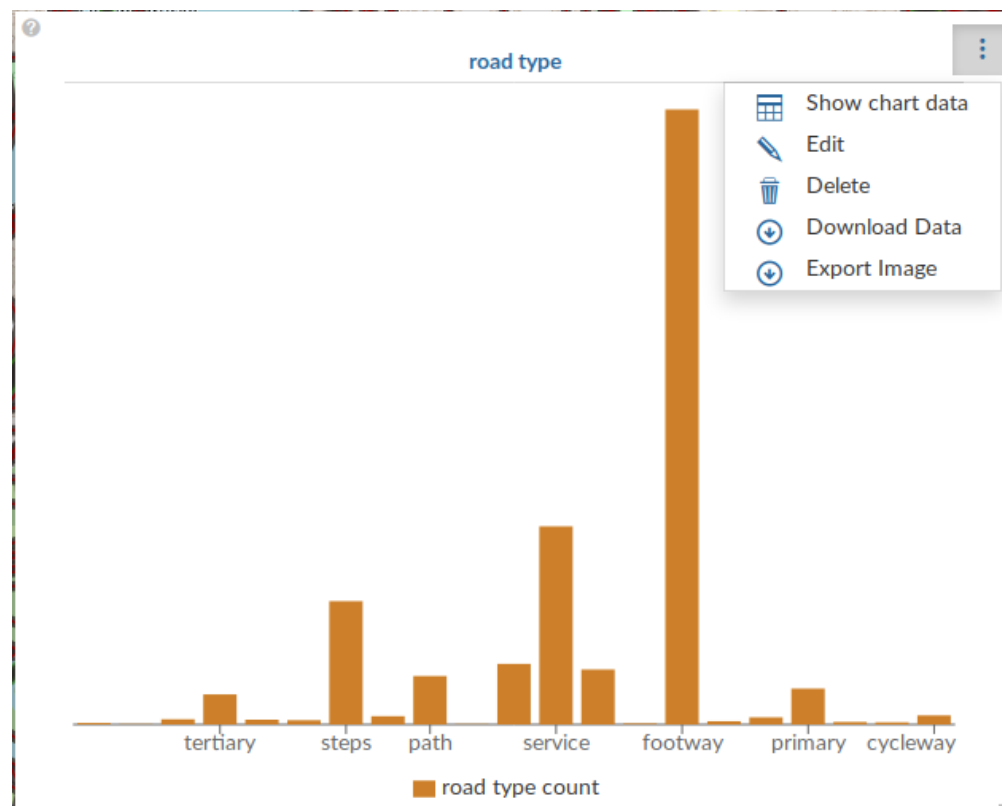



Fig. 182: Chart Widgets Options

Text Widgets

If you select *Text* on the *Widgets* panel you can create *Text Widgets*. Add a *Title* and the desired descriptive text, then click on .

The resulting widget looks like the following.

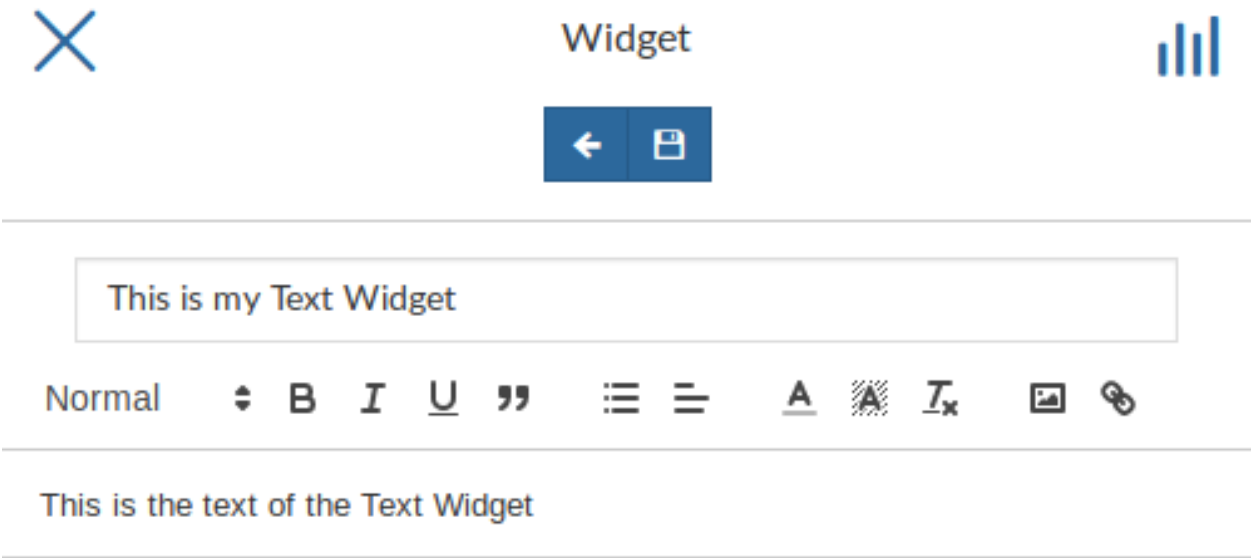


Fig. 183: *Text Widgets Creation*

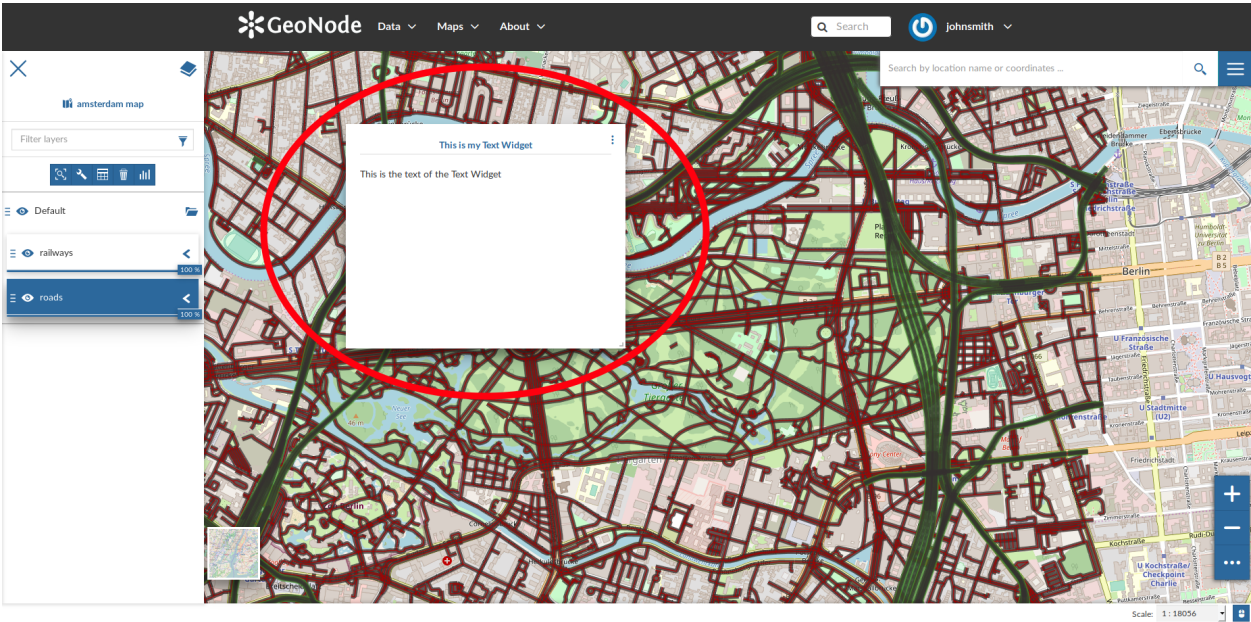



Fig. 184: *My Text Widget*

Table Widgets



Through the *Table Widgets* you can add the *Attributes Table* of the layer to the map. You can decide to show a subset of the features, through filters, and you can select one or more columns/attributes.

So, choose what attributes you are interested in and click on .

Insert *Title* and *Description* (optional) and click on . The example below shows the *Table Widget* on the map.

Counter Widgets

Counter Widgets are numeric representations of some attributes. For example you can represent the average speed limit on a road network.

Click on , insert *Title* and *Description* then click on .

The GeoNode map viewer is [MapStore](#) based, see the [MapStore Documentation](#) for further information.

Timeline

GeoNode can manage layers with a *time dimension*. Those vector layer may vary their data through time so it is useful to represent that variation on the map.

The [MapStore](#) based map viewer used in Geonode makes available the **Timeline** tool which allows you to observe the layers' evolution over time, to inspect the layer configuration at a specific time instant and to view different layer configurations time by time dynamically through animations (see the [MapStore Documentation](#) for further details).


Warning: Timeline actually works only with WMTS-Multidim extension (WMS time in capabilities is not fully supported).

When loading a temporal layer into the map, the *Timeline* opens automatically.

On the left side of the *Timeline* panel you can set the time value in which you want to observe the data. You can type it directly filling out the corresponding input fields or by using the up/down arrows.

On the other side there are the buttons responsible for managing the animations.

In particular you can *Play* the animation by clicking , go back to the previous time instant through , go forward to next time step using  and stop the animation by clicking .

The *Timeline* panel can be expanded through the  button.

The expanded section of the *Timeline* panel contains the *Time Layers List* and an *Histogram* which shows you:

- the distribution of the data over time

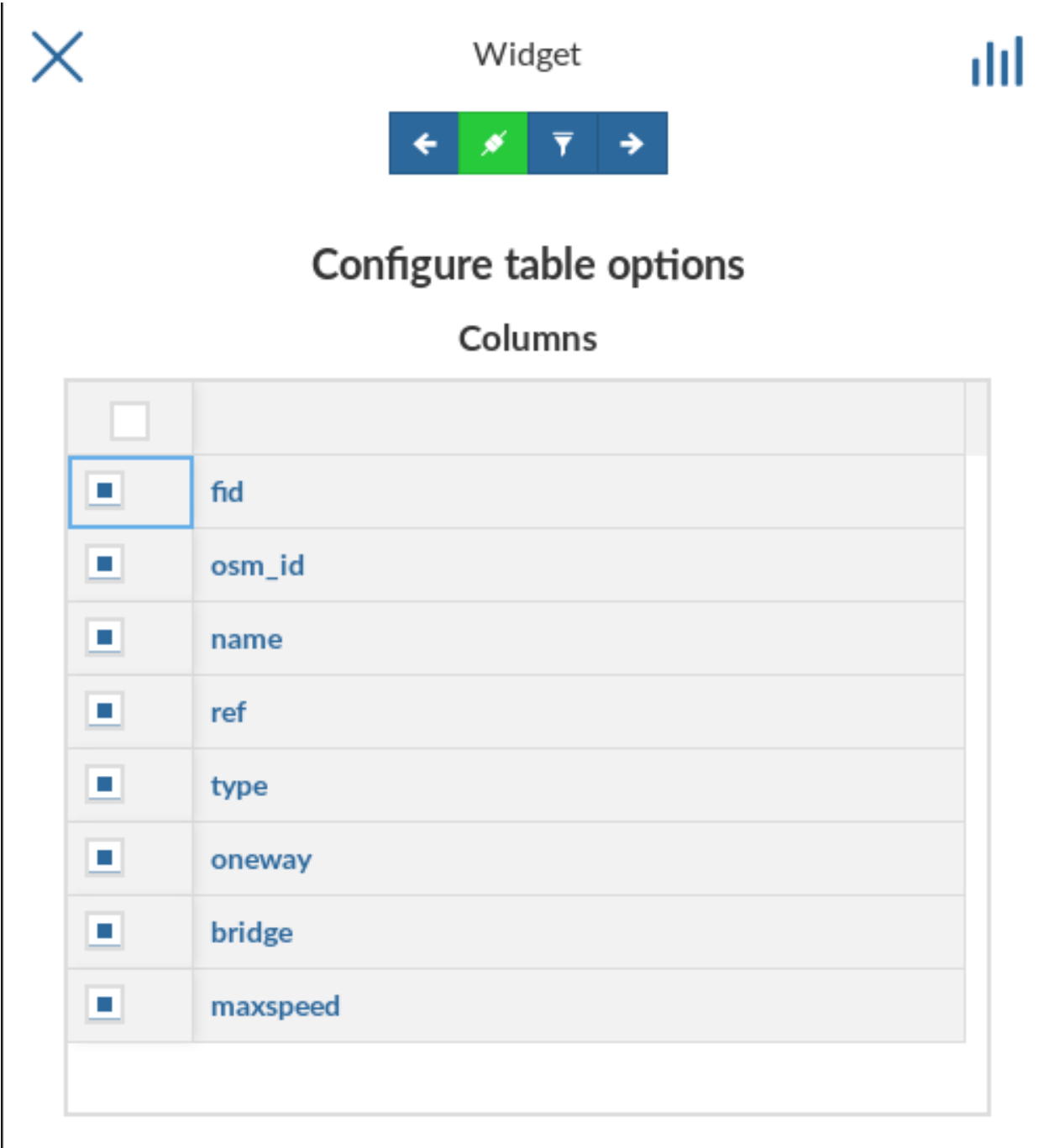


Fig. 185: Table Widgets Columns

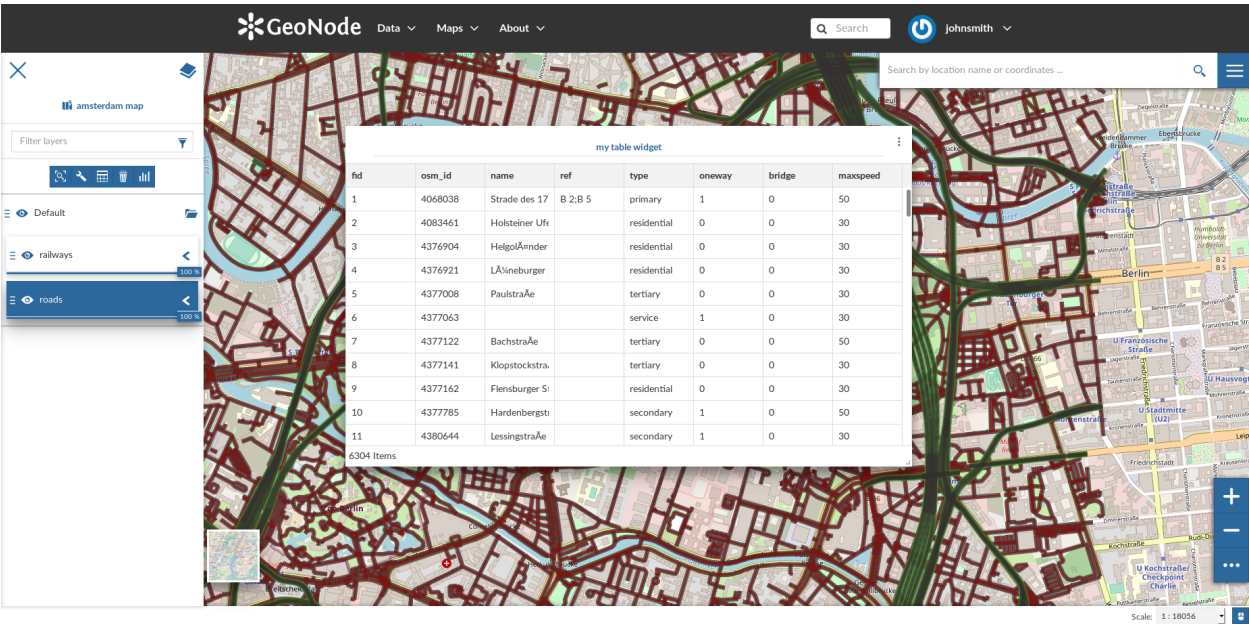


Fig. 186: Table Widget

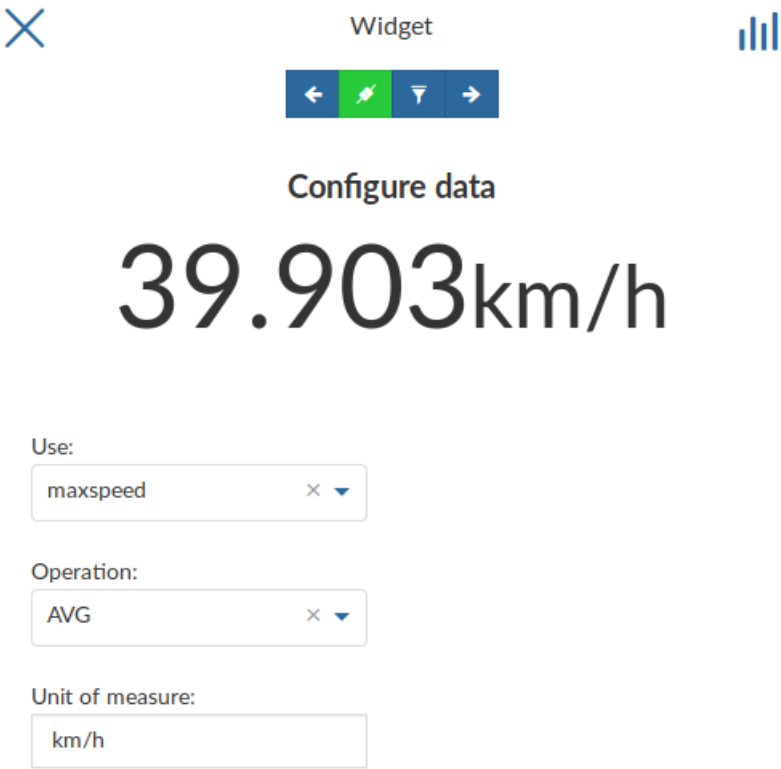


Fig. 187: Counter Widget Creation

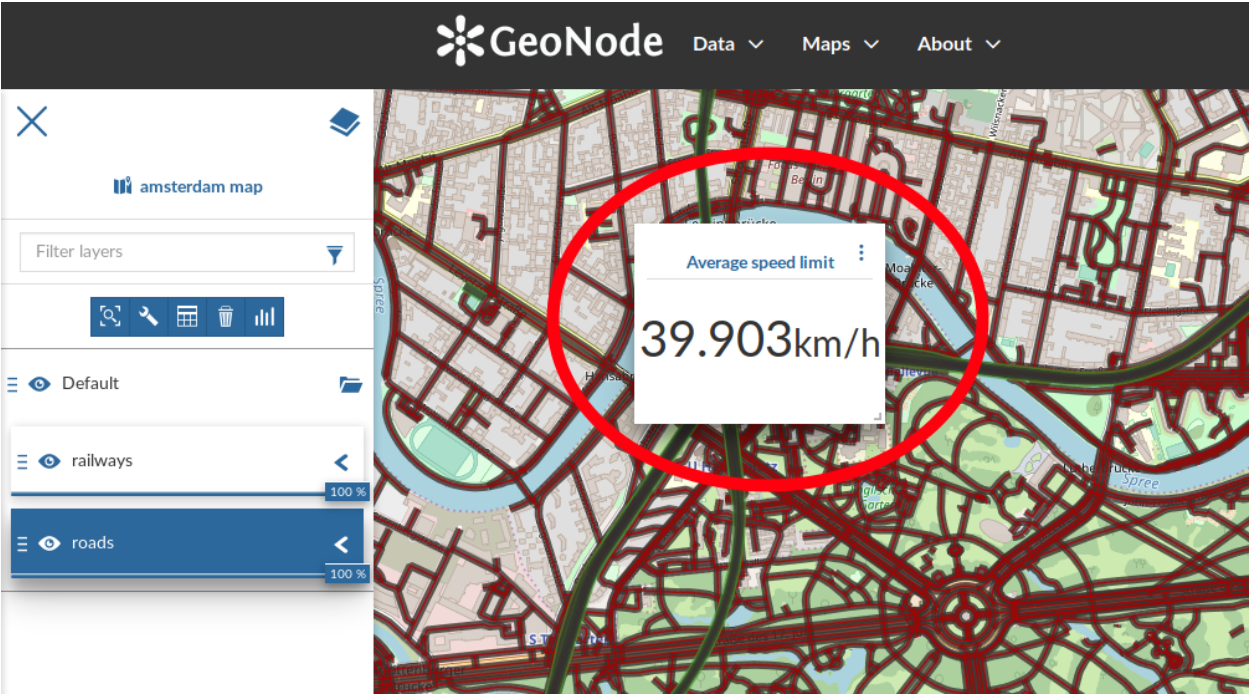


Fig. 188: Counter Widget

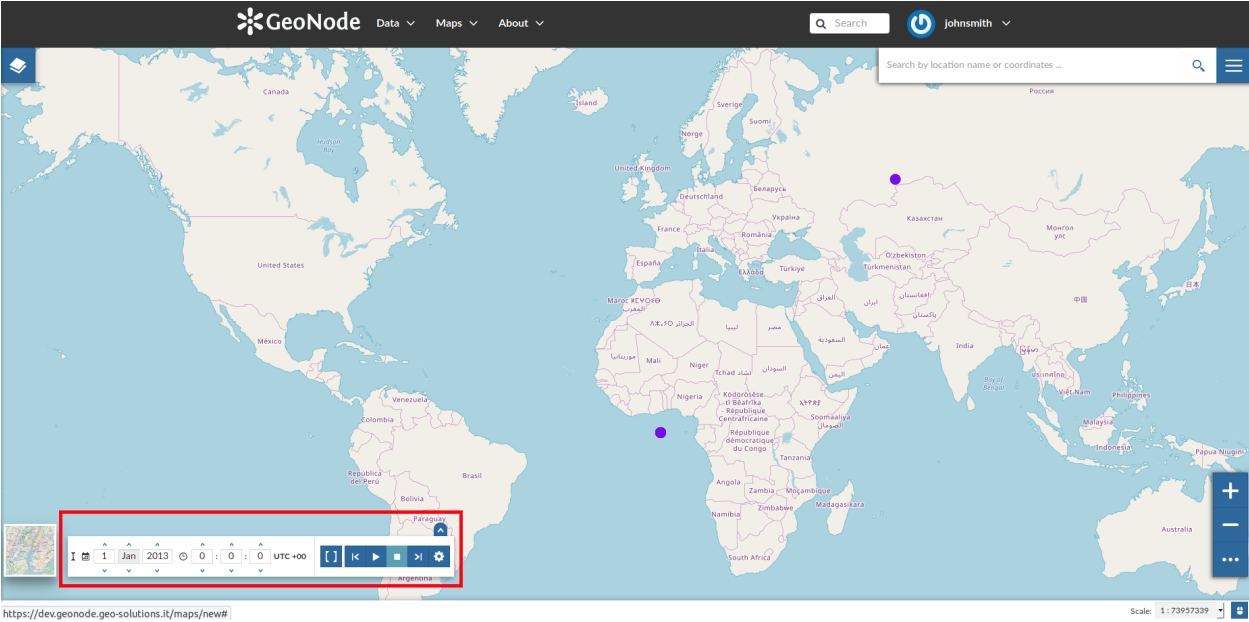


Fig. 189: The Timeline



Fig. 190: The Time Control Buttons

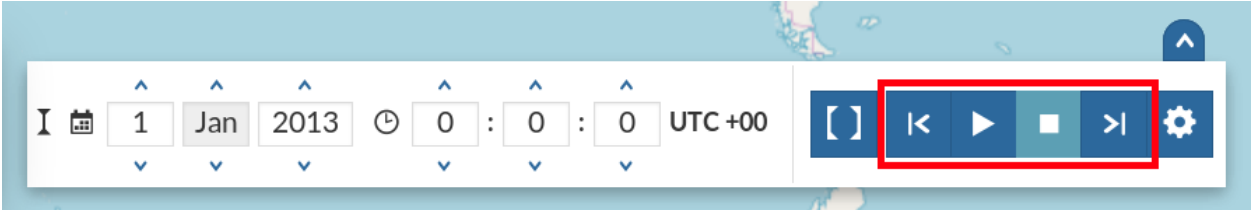


Fig. 191: The Animation Control Buttons

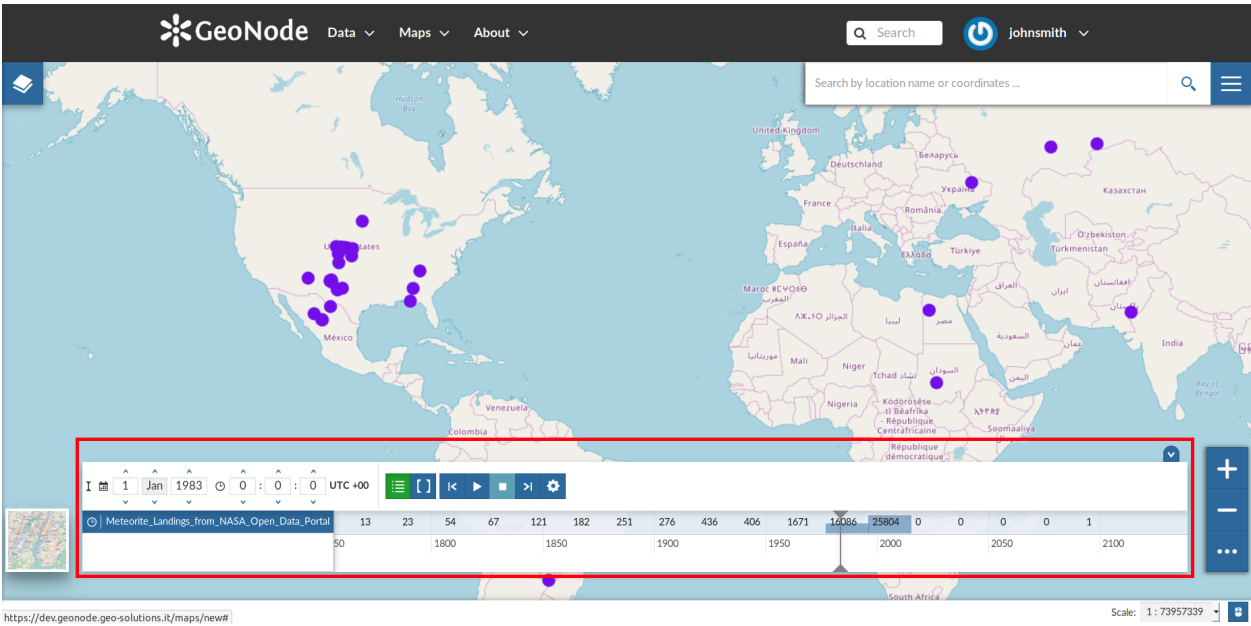


Fig. 192: The Expanded Timeline

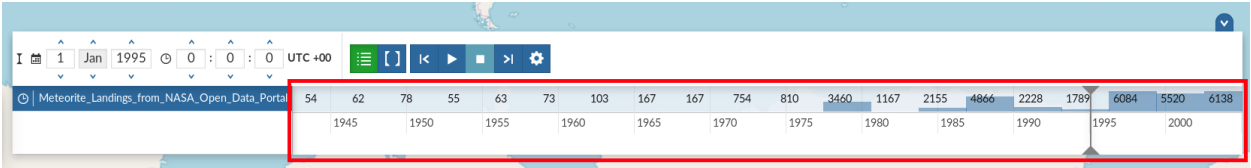


Fig. 193: The Timeline Histogram

- the *Time Cursor*

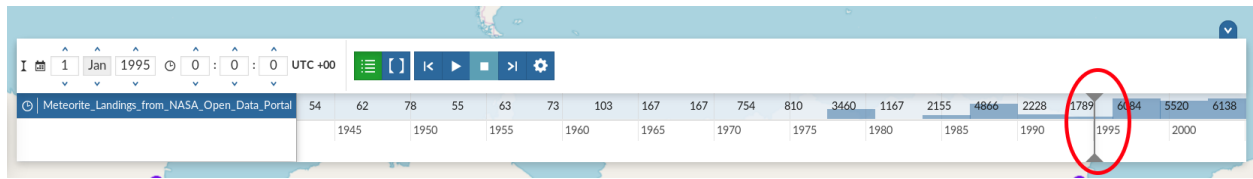




Fig. 194: The Time Cursor

You can show/hide the layers list by clicking  (it is active by default).

Through the *Time Range* function you can observe the data in a finite temporal interval. Click on  and set the initial and the final times to use it.

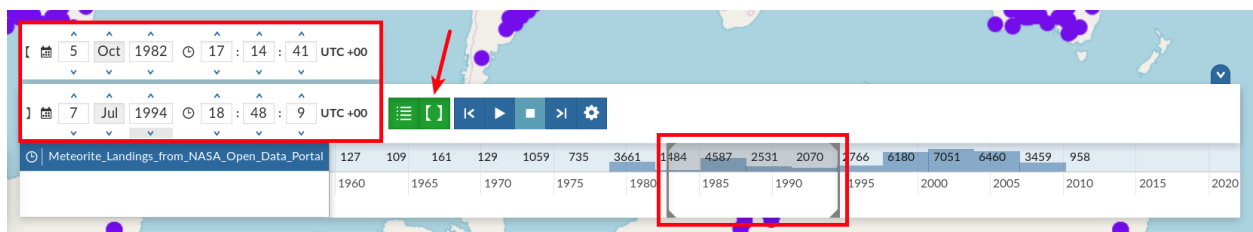




Fig. 195: The Time Range Settings

Animations

The *Timeline* allows you to see the data configurations (one for each time in which the data are defined) through ordered sequences of steps.

As said before, you can play the resulting *Animation* by clicking the play button . The layer data displayed on map will change accordingly to the time reach by the cursor on the *Histogram*.

By clicking on  you can manage some *Animation Settings*.

You can activate the *Snap to guide layer* so that the time cursor will snap to the selected layer's data. You can also set up the *Frame Duration* (by default 5 seconds).

If the *Snap to guide layer* option is disabled, you can force the animation step to be a fixed value.

The *Animation Range* option lets you to define a temporal range within which the time cursor can move. See the following gif to better understand how the *Animation* works or take a look at the [MapStore Documentation](#).

Timeline Settings

Snap to guide layer ?

☐

Playback Settings

Frame Duration

5

^

v

s

Animation Step ?

1

^

v

Day

Animation Range

☐


Follow the animation ?

☐

Fig. 196: The Timeline Settings

Fig. 197: The Timeline Animation

Options Menu Tools

At the top-right corner of the *Map* there is a *Burger Menu* button . Click on it to open the *Map Options* panel.

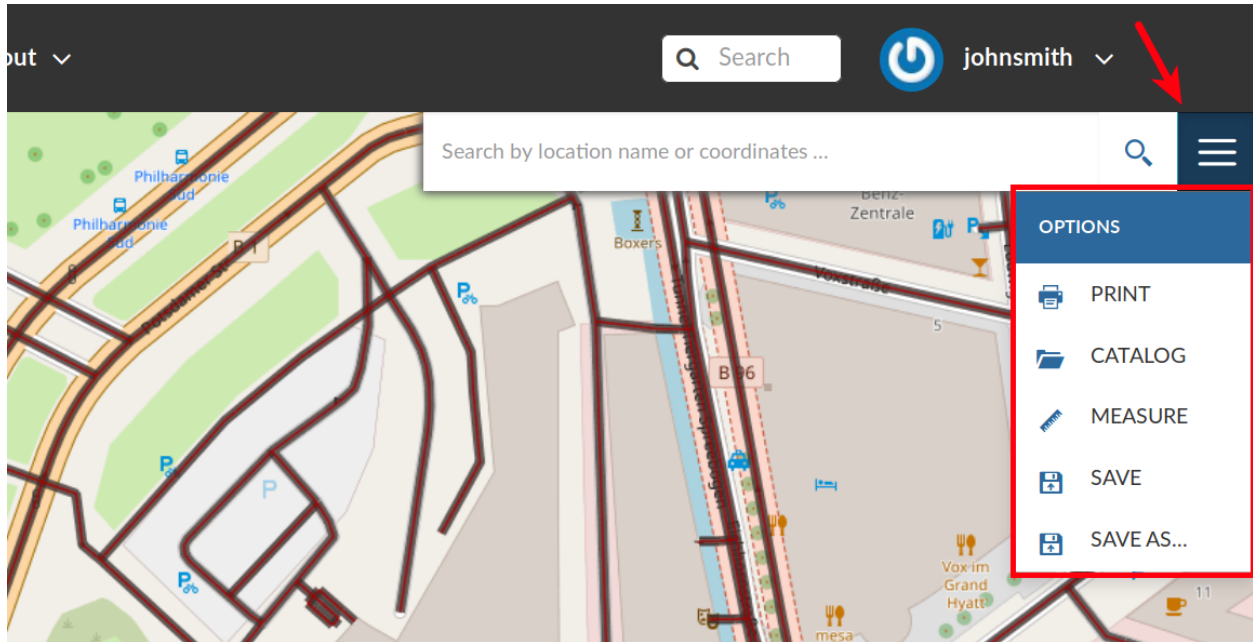


Fig. 198: The Map Options Menu

We will explain those tools more in depth in the next paragraphs.

Printing a Map

The *MapStore* based map viewer of GeoNode allows you to print your map with a customizable layout. Click the *PRINT* option from the *Map Options Menu*, the **Printing Window** will open.

From this window you can:

- enter *Title* and *Description*;
- choose the *Resolution* in dpi;
- customize the *Layout*
 - the *Sheet size* (A3, A4);
 - if include the legend or not;
 - if to put the legend in a separate page;
 - the page *Orientation* (Landscape or Portrait);
- customize the *Legend*
 - the *Label Font*;
 - the *Font Size*;

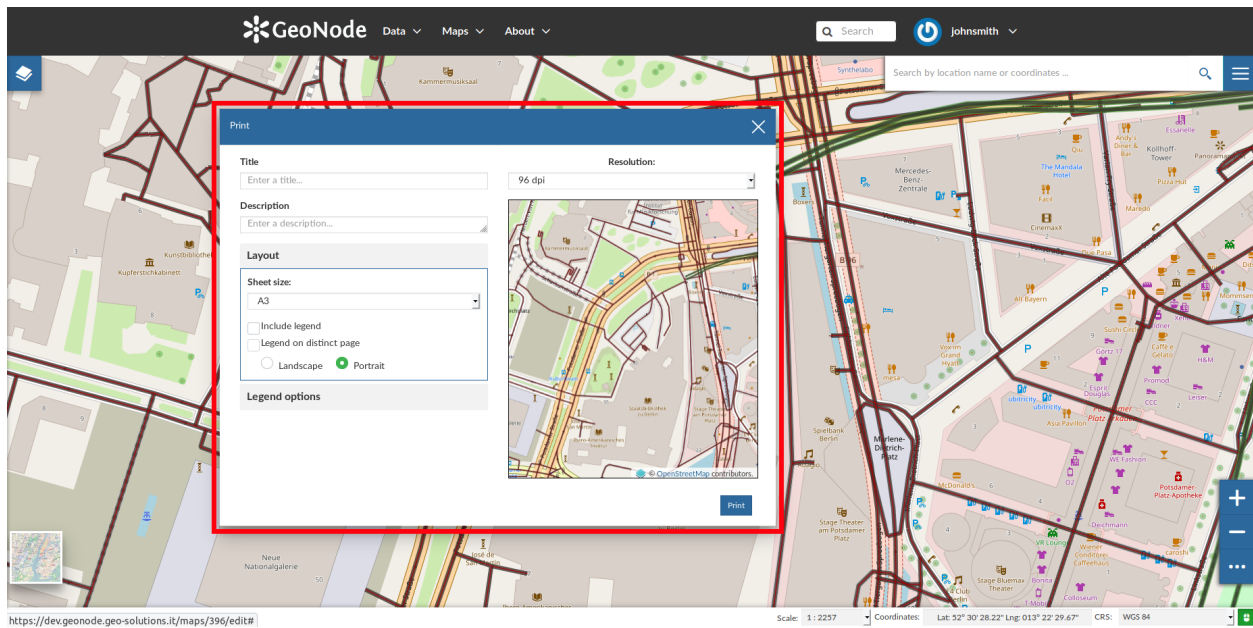


Fig. 199: The Printing Window

- the *Font Emphasis* (bold, italic);
- if *Force Labels*;
- if use *Anti Aliasing Font*;
- the *Icon Size*;
- the *Legend Resolution* in dpi.

To print the map click on *Print*.

The Layers Catalog

All the layers available in GeoNode, both uploaded and remote, can be loaded on the map through the *Catalog*. Click on the *CATALOG* option of the *Map Options Menu* to take a look at the catalog panel.

You can navigate through layers and look at their *Thumbnail* images, *Title*, *Description* and *Abstract*. Click on *Add To Map* to load a layer into the map, it will be also visible in the *Table of Contents (TOC)*.

Performing Measurements

Click on the *MEASURE* option of the *Map Options Menu* to perform a measurement. As you can see in the picture below, this tool allows you to measure *Distances*, *Areas* and the *Bearing* of lines.

To perform a measure draw on the map the geometry you are interested in, the result will be displayed on the left of the unit of measure select menu (this tool allows you to change the unit of measure also).

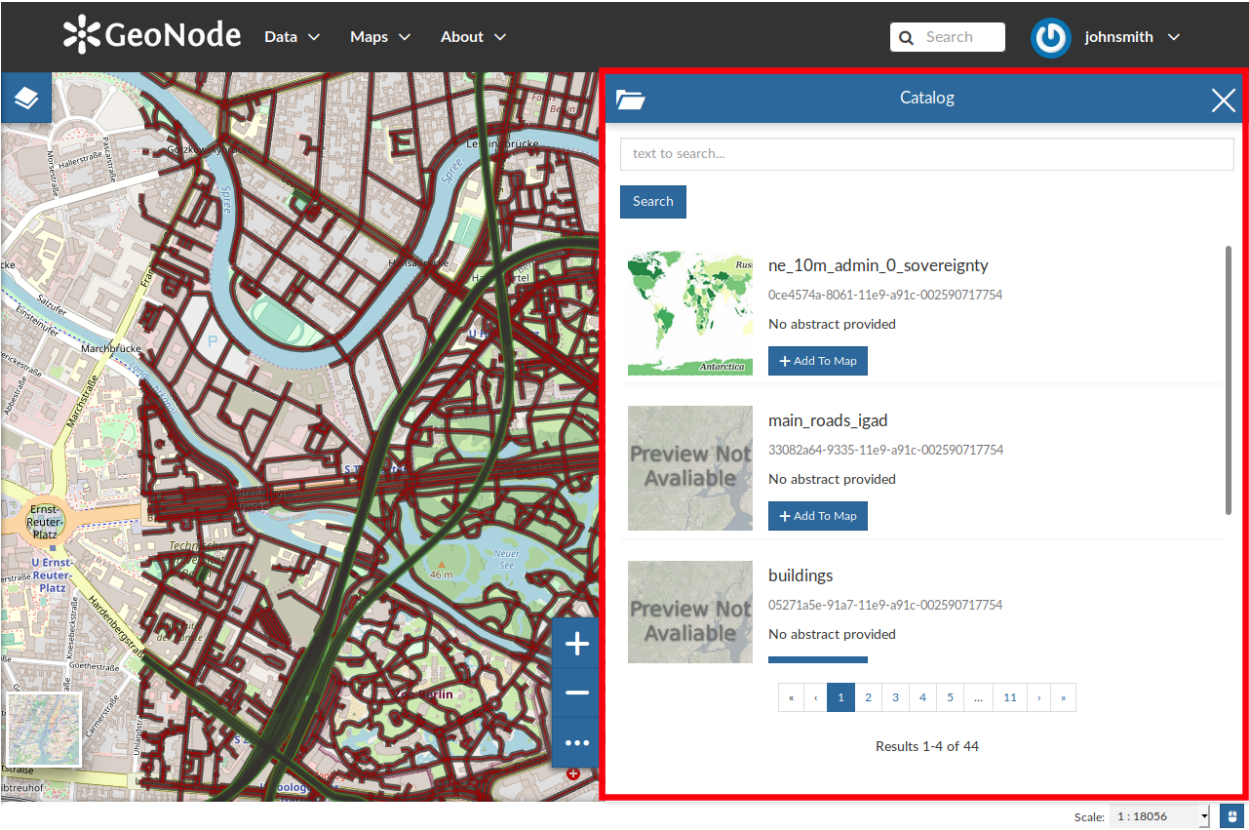
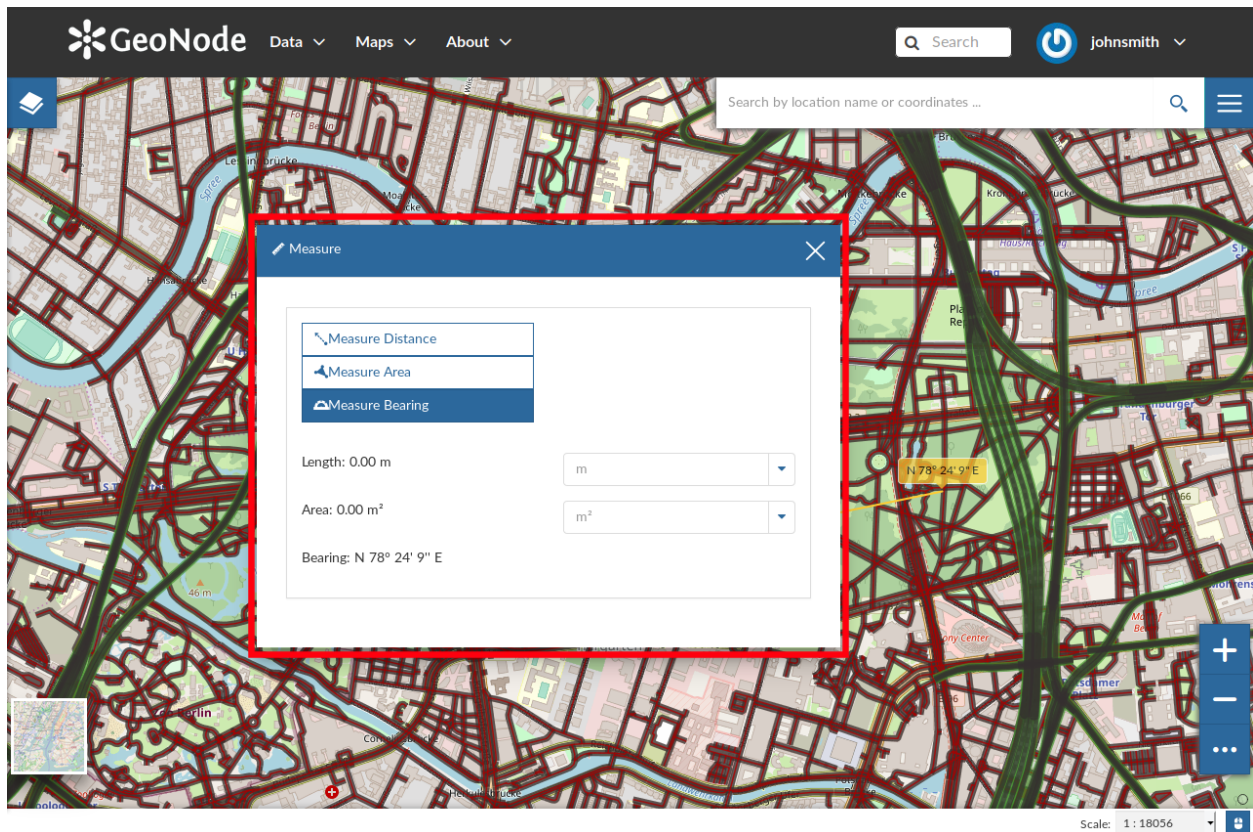
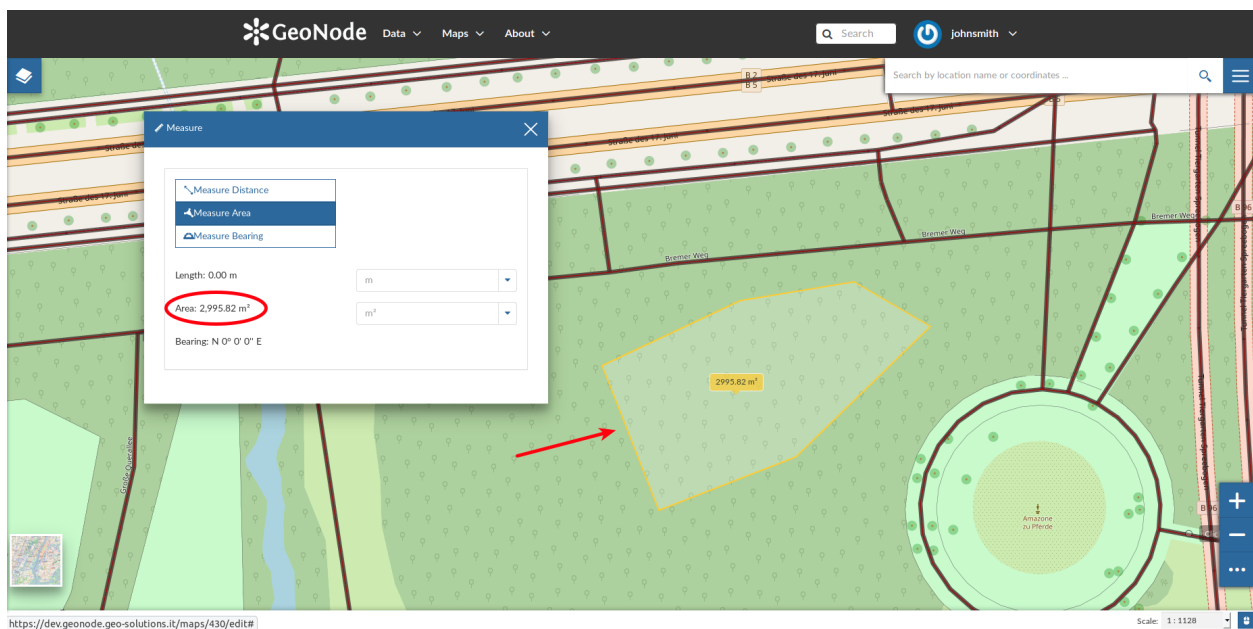


Fig. 200: *The Layers Catalog*

Fig. 201: *The Measure Tool*Fig. 202: *Measuring Areas*

Saving a map

Once all the customizations have been carried out, you can *Save* your map by clicking on the *SAVE AS* option of the *Map Options Menu*.

A new popup window will open.

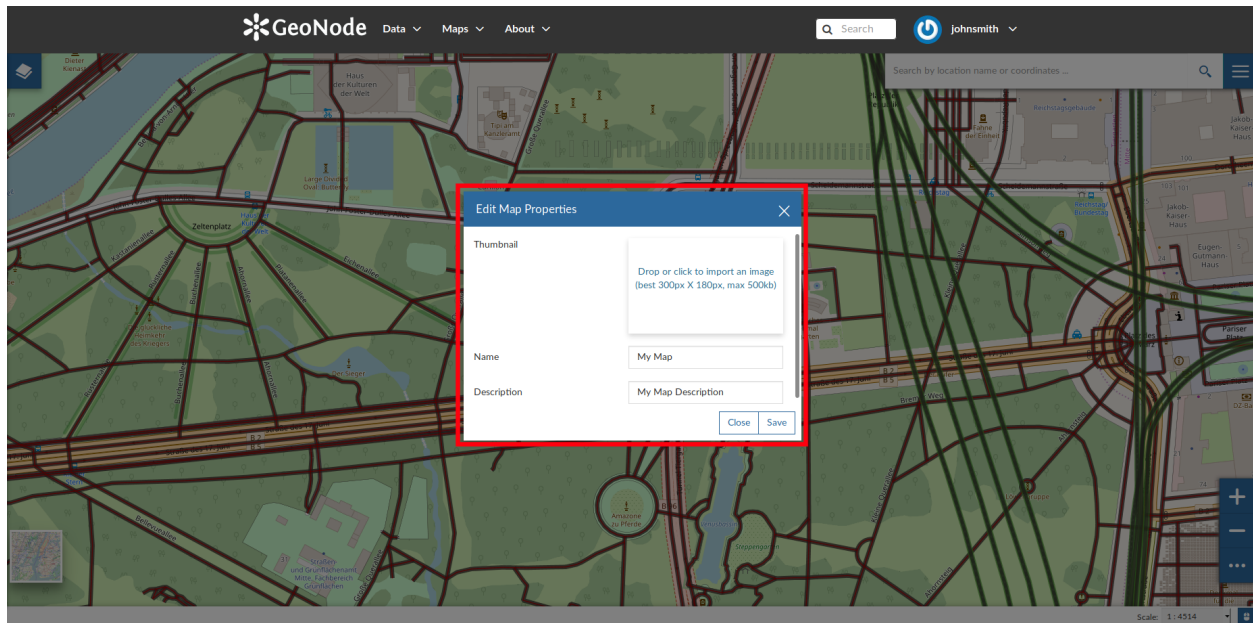


Fig. 203: Saving Maps

You have to fill out a *Title* and an optional *Description*, then click on *Save*. The page will reload and your map should be visible in the *Maps* list.

Customizing The Layers' GetFeatureInfo Templates

When “clicking” over a feature of a Layer into a GeoNode Map, an info window popups showing a formatted representation of the raw data identified by the coordinates (see Fig. 1)

The way how such information is presented to the user is defined by what we call “GetFeatureInfo Template”. The latter is basically an HTML snippet containing some placeholders and special inline codes that instruct GeoServer on how to generate the raw data output.

The outcome is a rendered HTML snippet with the real values replacing the placeholders of the Template.

Currently, GeoNode allows a very simple mechanism to customize the “GetFeatureInfo Template” of a Layer.

It is possible, through the Layer Metadata Editor Wizard, to assign a name and a label to the attributes we want to display on the GetFeatureInfo output.

Notice that the attributes without a label and name, in case others are present, won't be rendered at all.

As an instance, by using the example above, we can customize a bit the Layer Metadata as shown in Fig. 2

The “GetFeatureInfo” output will change accordingly as shown in Fig. 3

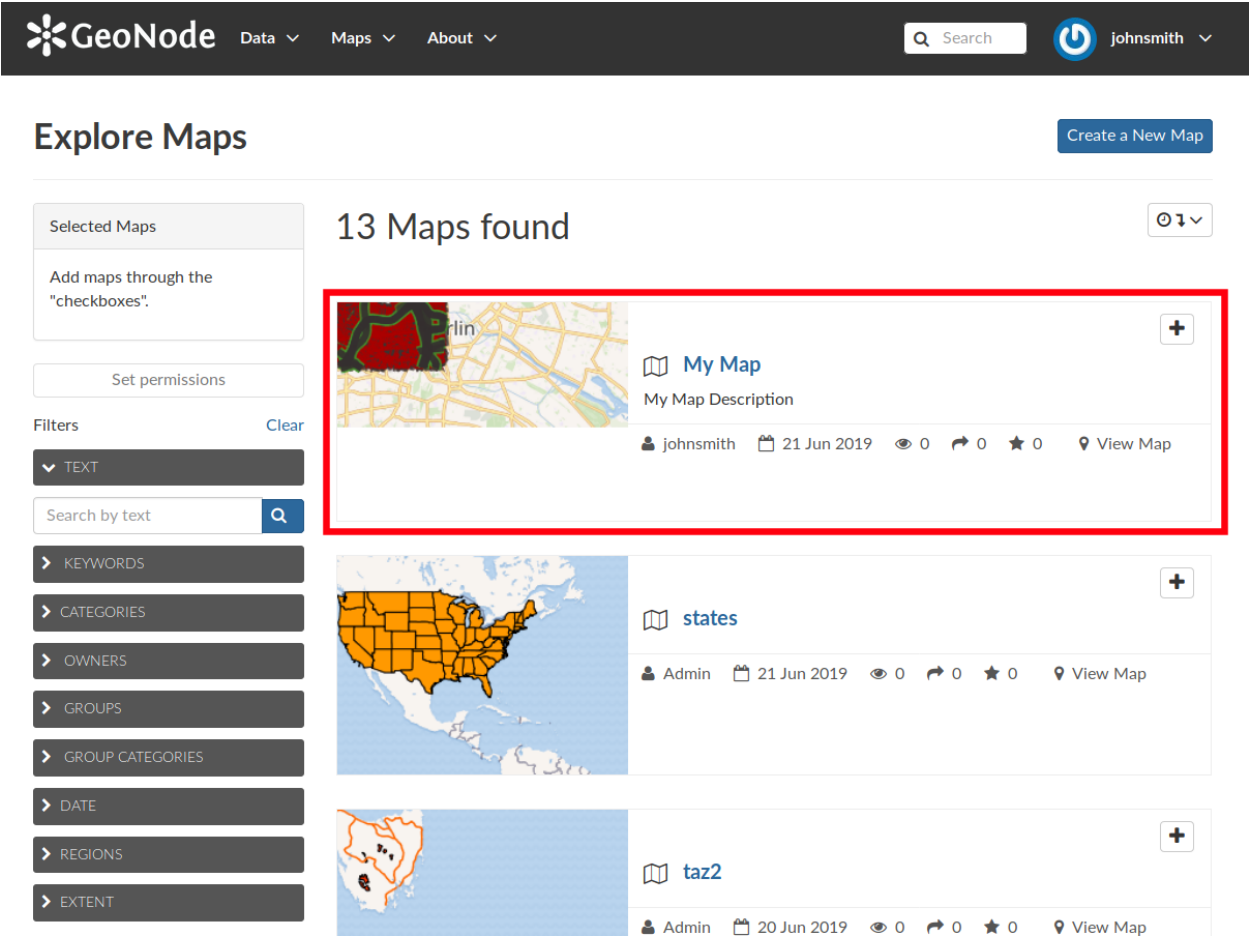


Fig. 204: Your Map into the List

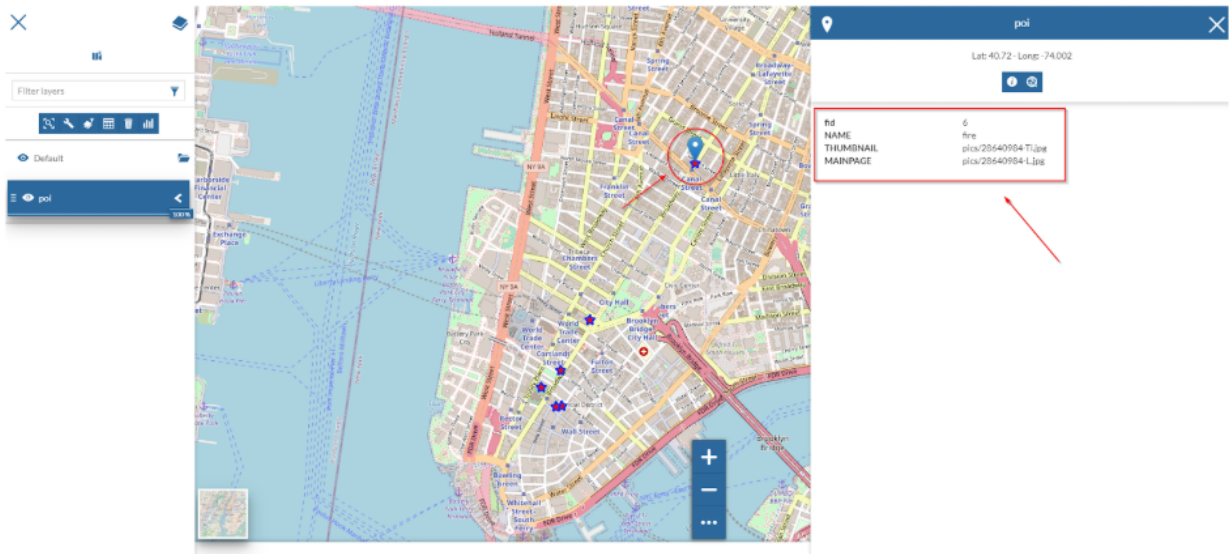


Fig. 205: Fig. 1

Metadata for poi

Completeness

✖Check Schema mandatory fields

55 %

Edit

Preview

Settings

Mandatory

Mandatory

Optional

1

2

3

4

Basic Metadata

Location and Licenses

Optional Metadata

Dataset Attributes

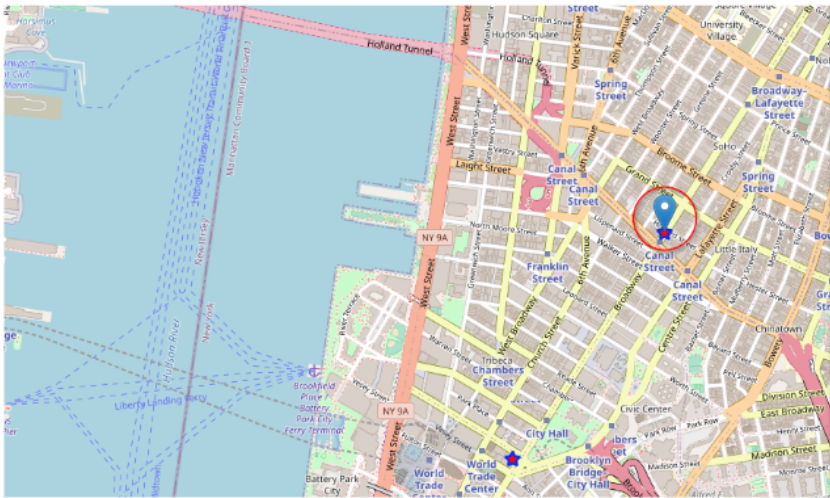
Attribute	Label	Description	Display Order
NAME	Point Of Interest	Point Of Interest	1
THUMBNAIL	Thumbnail		2
fid			3
the_geom			4
MAINPAGE			5

Return to Layer

<< Back

Update

Fig. 206: Fig. 2



poi

Lat: 40.72 - Long: -74.002

Point Of Interest

fire

Thumbnail

pics/28640984-T1.jpg

Fig. 207: Fig. 3

Simple Template: Assigning A Media-Type To Attribute Values

The easiest way to render a different media-type (*image*, *audio*, *video* or *iframe*) to a property value, is to change it from the *Metadata Editor Wizard* attributes panel.

By changing the *Display Type* of an attribute from this panel as shown in Fig. 4

GeoNode Data Maps About Search admin

Metadata for san_andres_y_providencia_administra...

Completeness
✓Metadata Schema mandatory fields completed
100%

Edit Preview Settings Done!

Mandatory Mandatory Optional

1 2 3 4
Basic Metadata Location and Licenses Optional Metadata Dataset Attributes

Attribute	Label	Description	Display Order	Display Type
fid			1	Property-Label
the_geom			2	Property-Label
NAME	Name	Name	3	Property-Label
ADMIN_LEVE	Admin Level	Admin Level	4	Property-Label

Use a custom template? ☐

File Edit View Insert Format Tools Table Help

Image
Video
Audio
IFrame

Fig. 208: Fig. 4

GeoNode will create automatically the HTML media type when rendering by using the **value** of the selected property. So, as an example, if, in the figure above, the attribute *NAME* contains values representing some links to other resources, GeoNode will create those links automatically for you when clicking over a geometry.

Selecting *image* as media-type (Fig. 6)

and editing the contents accordingly (Fig. 7)

you will get a nice effect as shown in Fig. 8

Advanced Template: Use A Custom HTML Template

By selecting the option *Use a custom template?* as shown in Fig. 9

You will be able to provide your own custom HTML Template for the Feature Info output.

The example below shows how it is possible to create a nice HTML output with an *image* taking the *src* from the attribute *NAME* values, through the use of the keyword `${properties.NAME}`

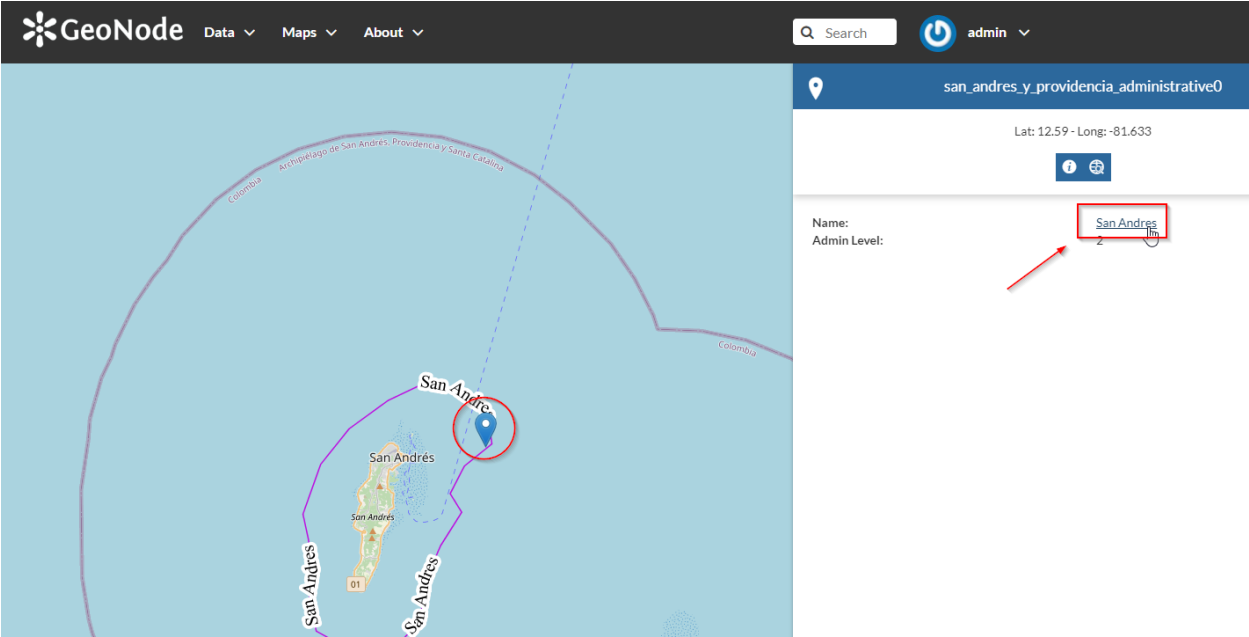


Fig. 209: Fig. 5

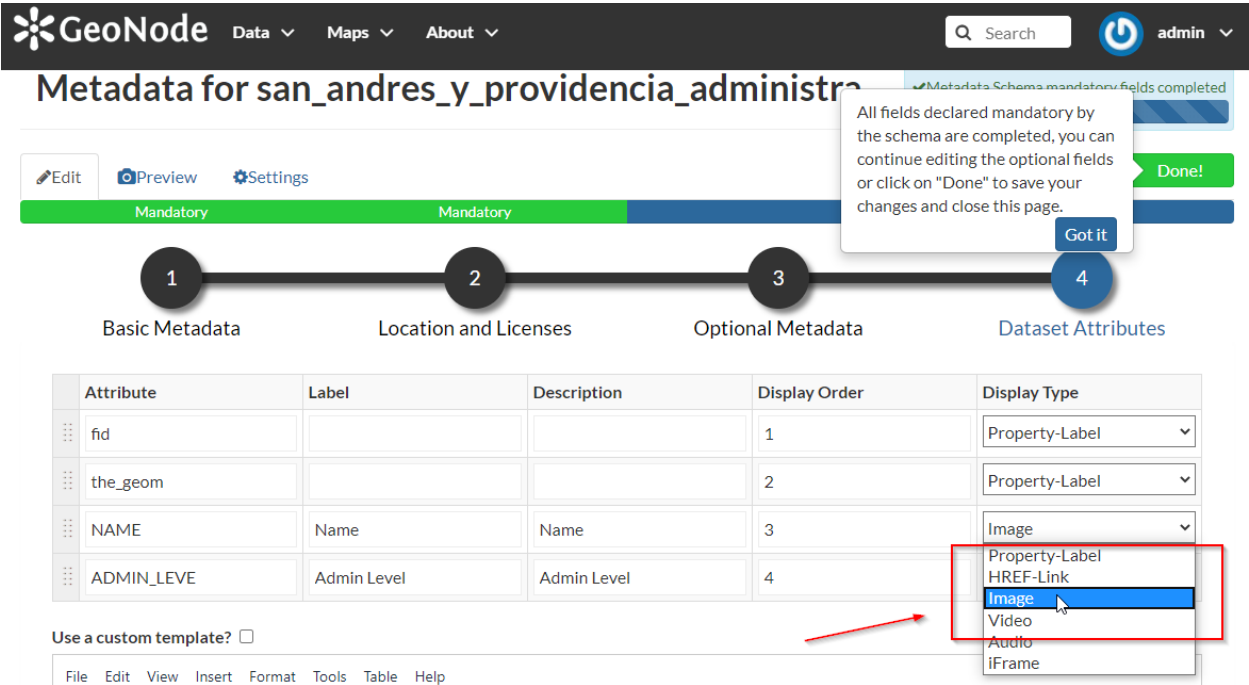


Fig. 210: Fig. 6

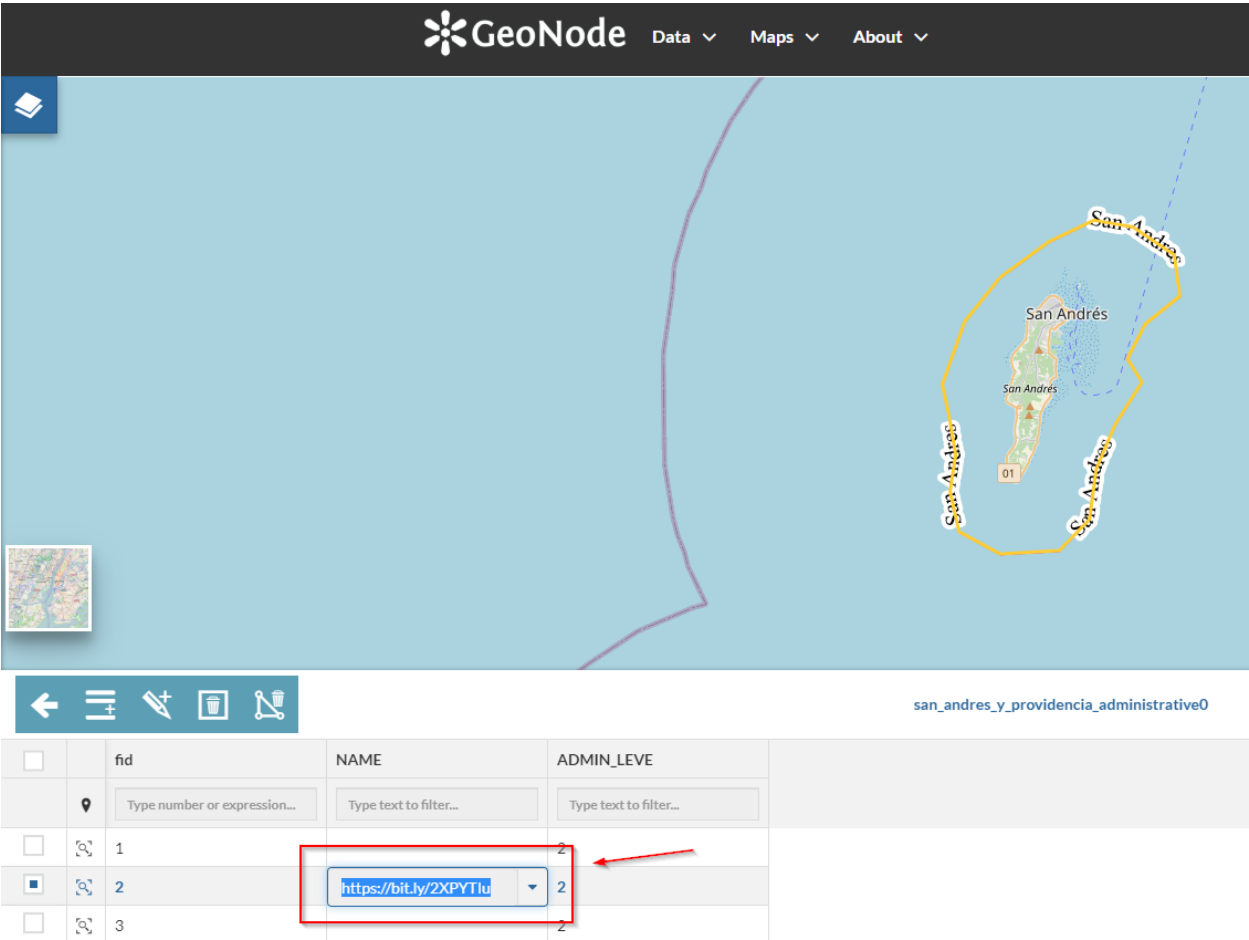


Fig. 211: Fig. 7

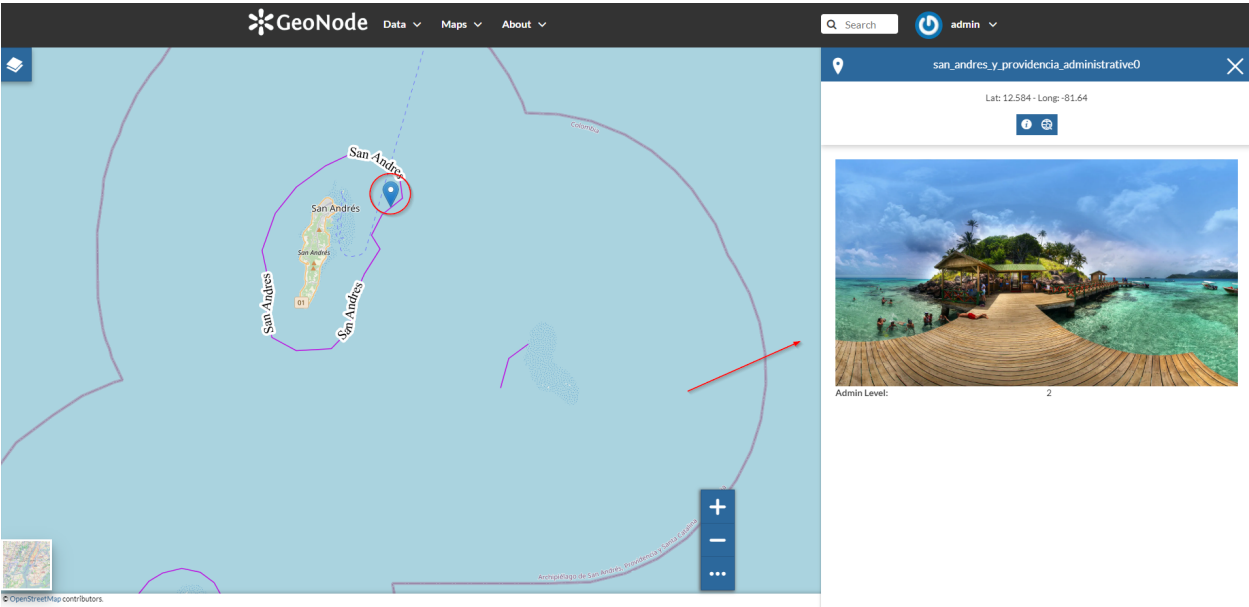


Fig. 212: Fig. 8

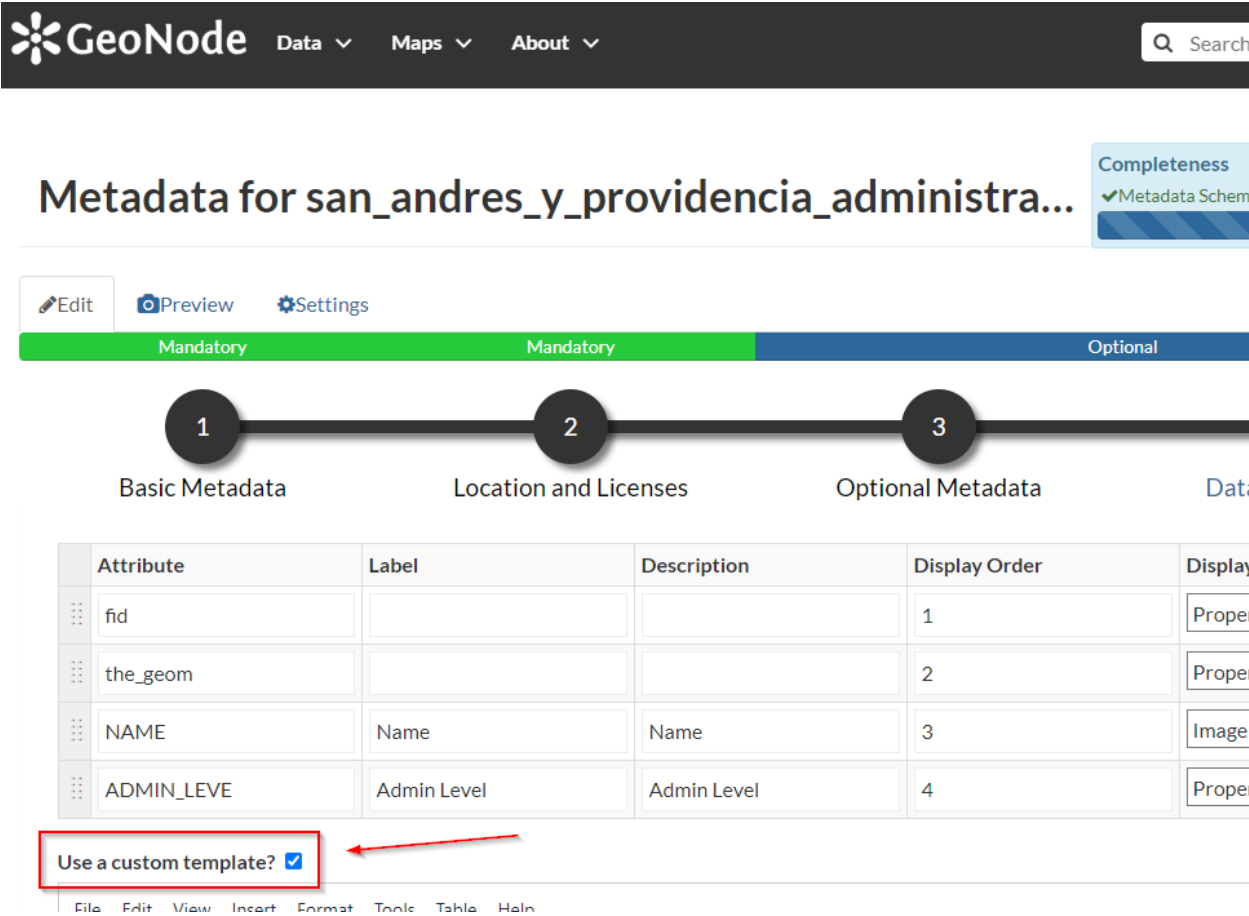


Fig. 213: Fig. 9

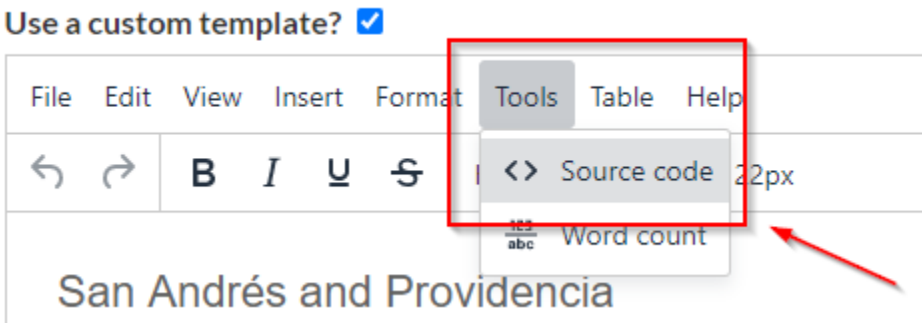


Fig. 214: Fig. 10

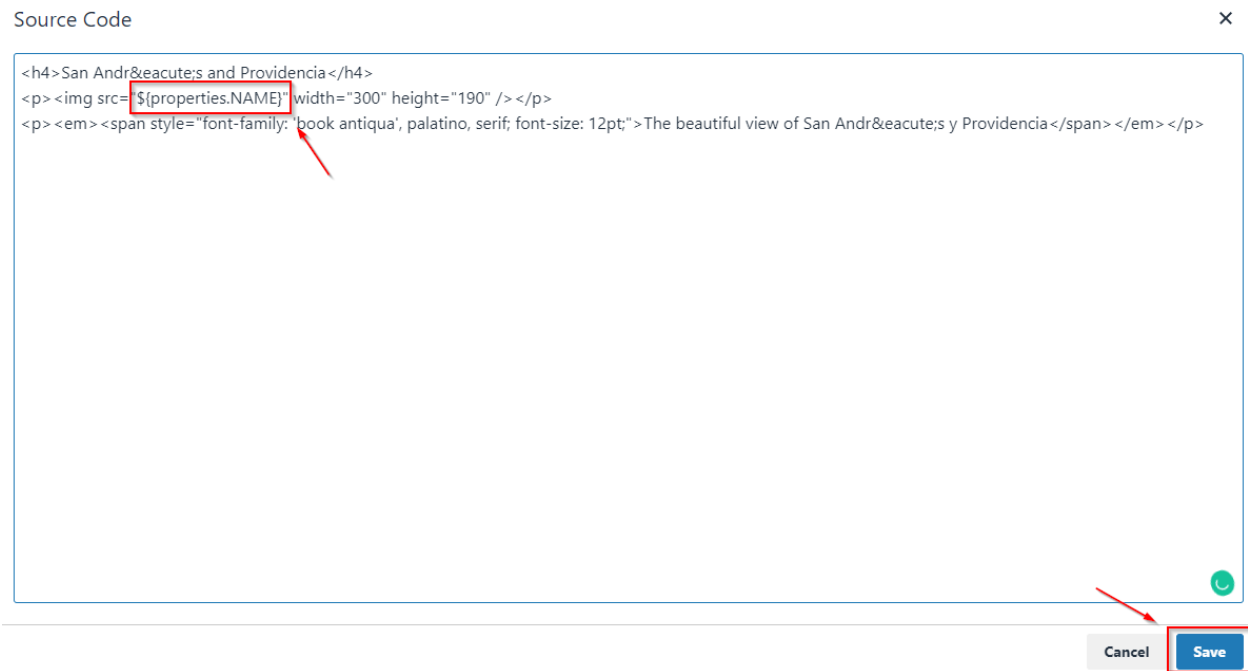


Fig. 215: Fig. 11

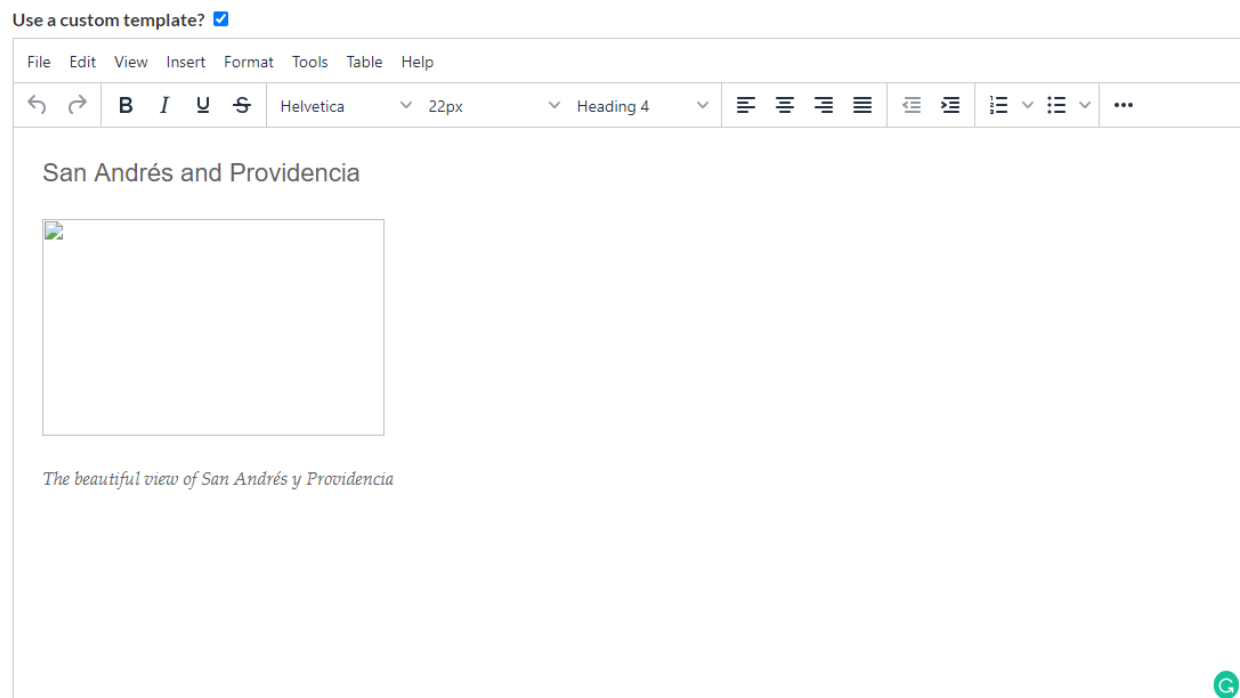


Fig. 216: Fig. 12

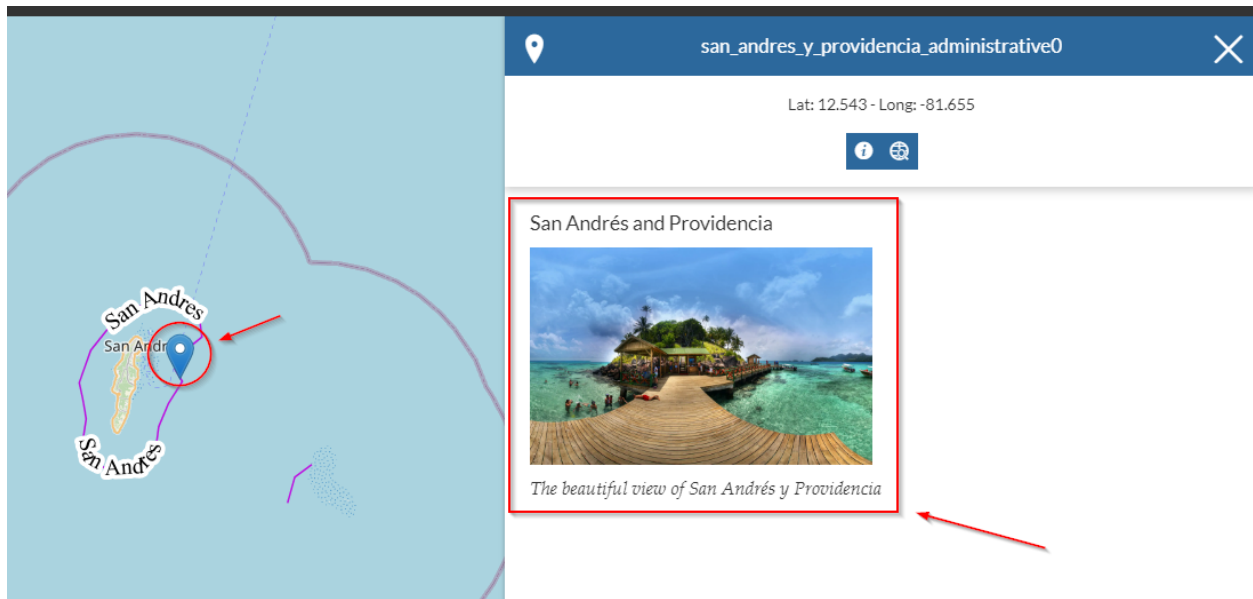


Fig. 217: Fig. 13

Optional: Customizing the HTML WYSIWYG Editor Menu Bar

The *Menu Bar* and *Tool Bar* of the HTML Editor, can be easily customized by overriding the `TINYMCE_DEFAULT_CONFIG` variable on *settings.py* (see *tinyMCE Default Config Settings*)

There are many plugins and options allowing you to easily customize the editor and also provides some predefined *templates* to speed up the editing.

For more information about the Javascript tool, please refer to <https://www.tiny.cloud/>

Search Bar


The *Search Bar* of the map viewer allows you to find point of interests (POIs), streets or locations by name. Lets type the name of some place then select the first record.

The map will automatically re-center on that area delimiting it by a polygon in the case of an area, by a line in the case of a linear shape (e.g. streets, streams) and by a marker in the case of a point.

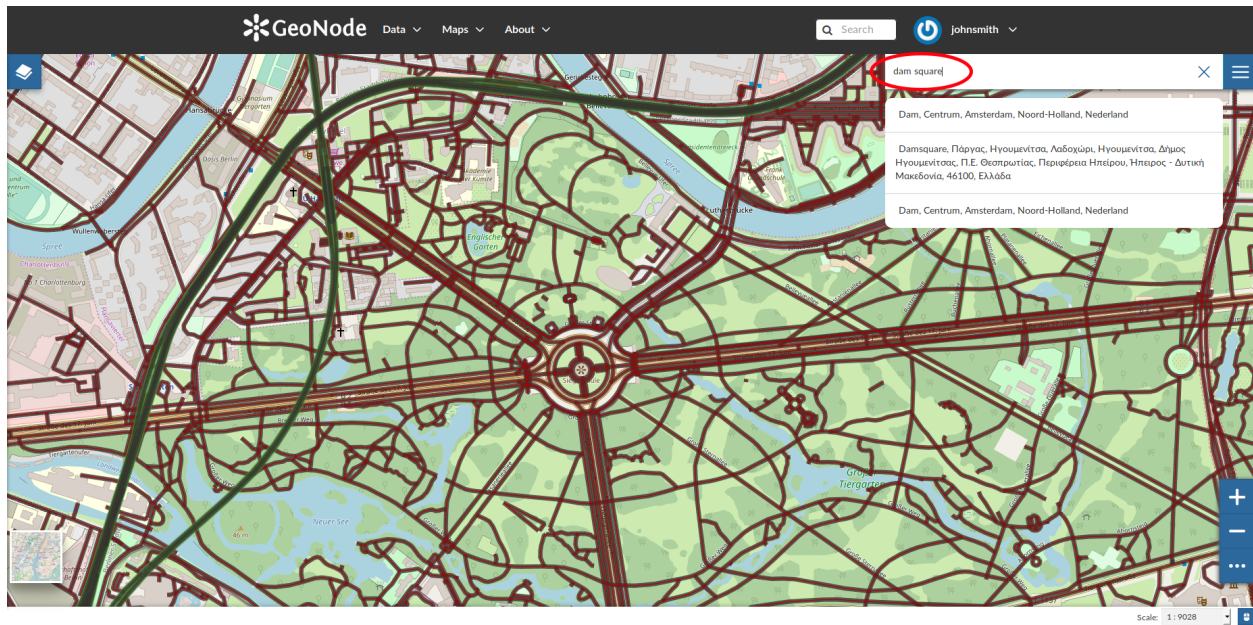
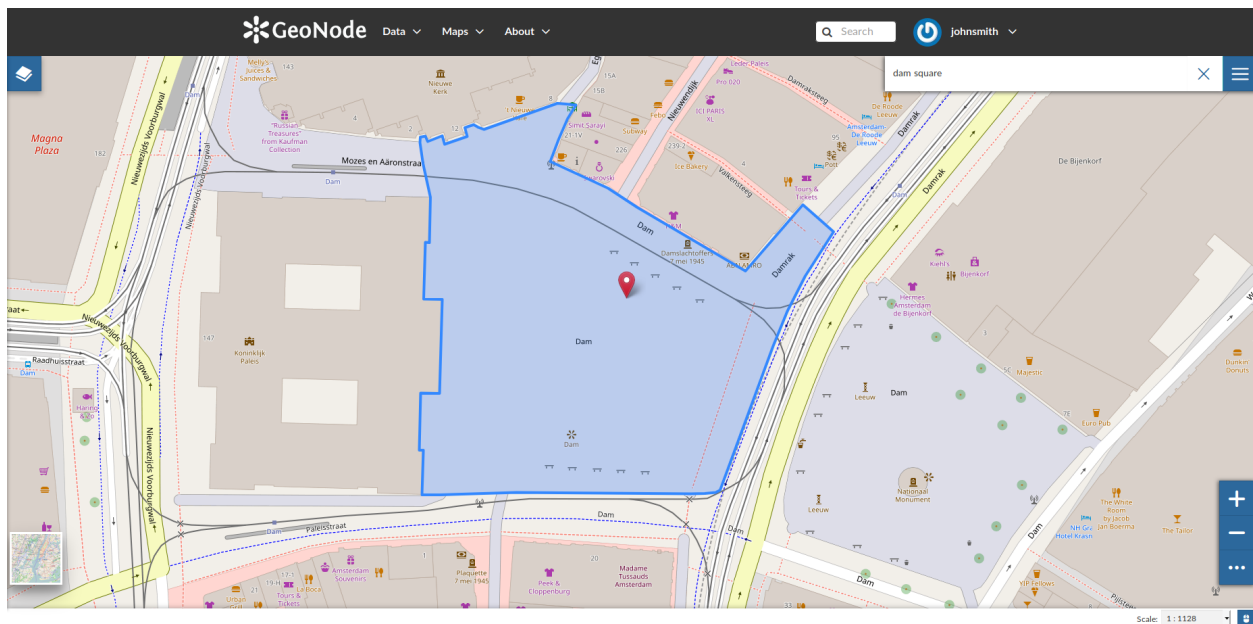
Sidebar Tools

The *Map Viewer* makes also available the *Sidebar*. It is a navigation panel containing various tools that help you to explore the map such as tools for zooming, changing the extent and querying objects on the map.

By default the *Sidebar* shows you the zooming buttons  and , other options can be explored by clicking on

 which expands/collapses the toolbar.

The *Sidebar* contains the following tools:

Fig. 218: *The Search Bar*Fig. 219: *Result of a Search*

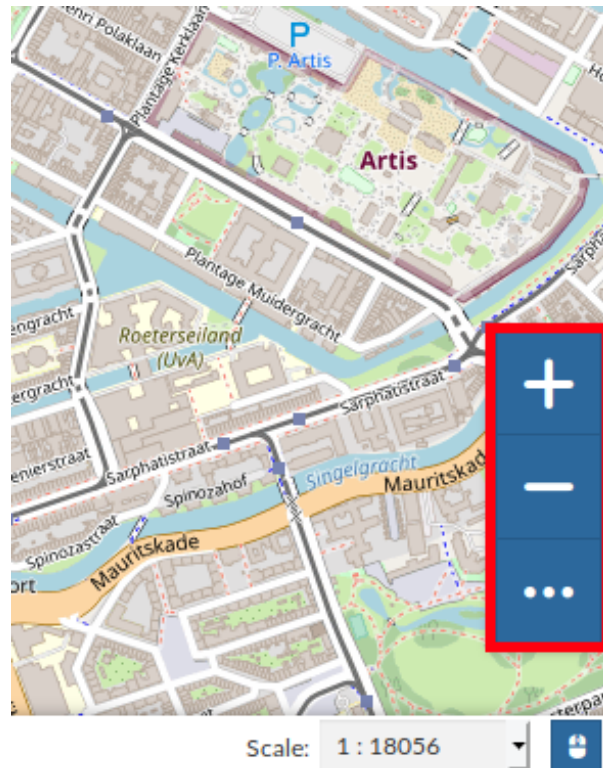







Fig. 220: The Default Sidebar

- The *Query Objects on map* allows you to get feature information through the  button. It allows you to retrieve information about the features of some layers by clicking them directly on the map.
When clicking on map a new panel opens. That panel will show you all the information about the clicked features for each active loaded layer.
- You can *Zoom To Max Extent* by clicking .
- You can switch between the previous and the next zoom level through the *Go Back* button  and the *Go Forward* one .
- The *Switch to Full Screen*  button allows to have a full screen map.

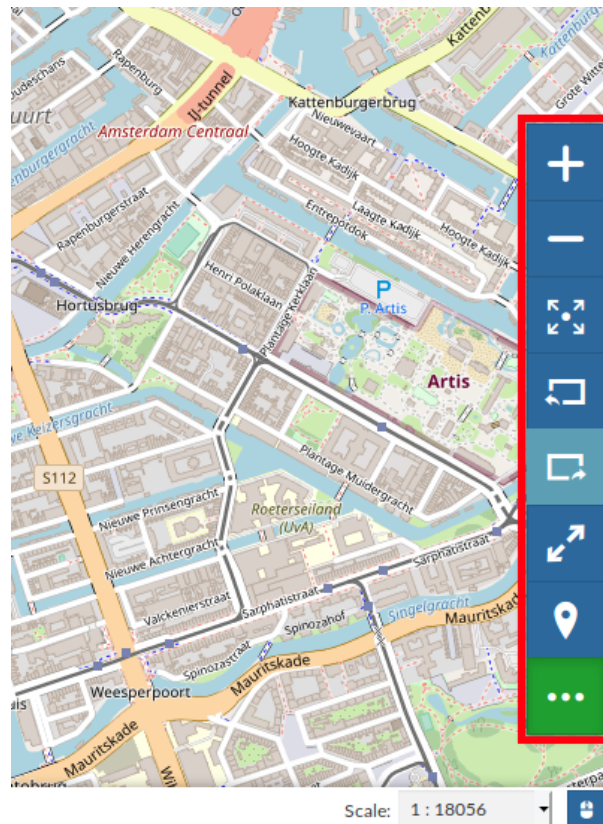


Fig. 221: *The Expanded Sidebar*

Fig. 222: *Querying Objects on map*

Basemap Switcher

By default, GeoNode allows to enrich maps with many world backgrounds:

- *OpenStreetMap*
- *OpenTopoMap*
- *Sentinel-2-cloudless*

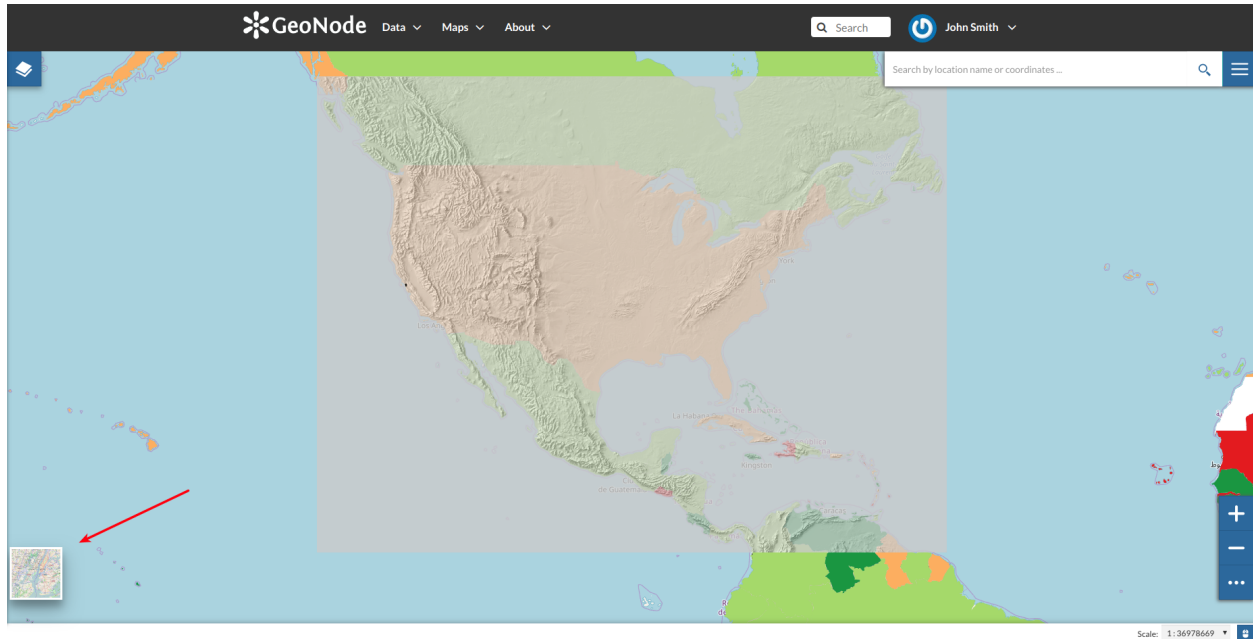



Fig. 223: *The Basemap Switcher Tool*

You can also decide to have an *Empty Background*.

Fig. 224: *Switching the Basemap*

Footer Tools

At the bottom of the map, the *Footer* shows you the *Scale* of the map and allows you to change it.

The  button allows you to see the pointer *Coordinates* and to change the Coordinates Reference System (CRS), WGS 84 by default.

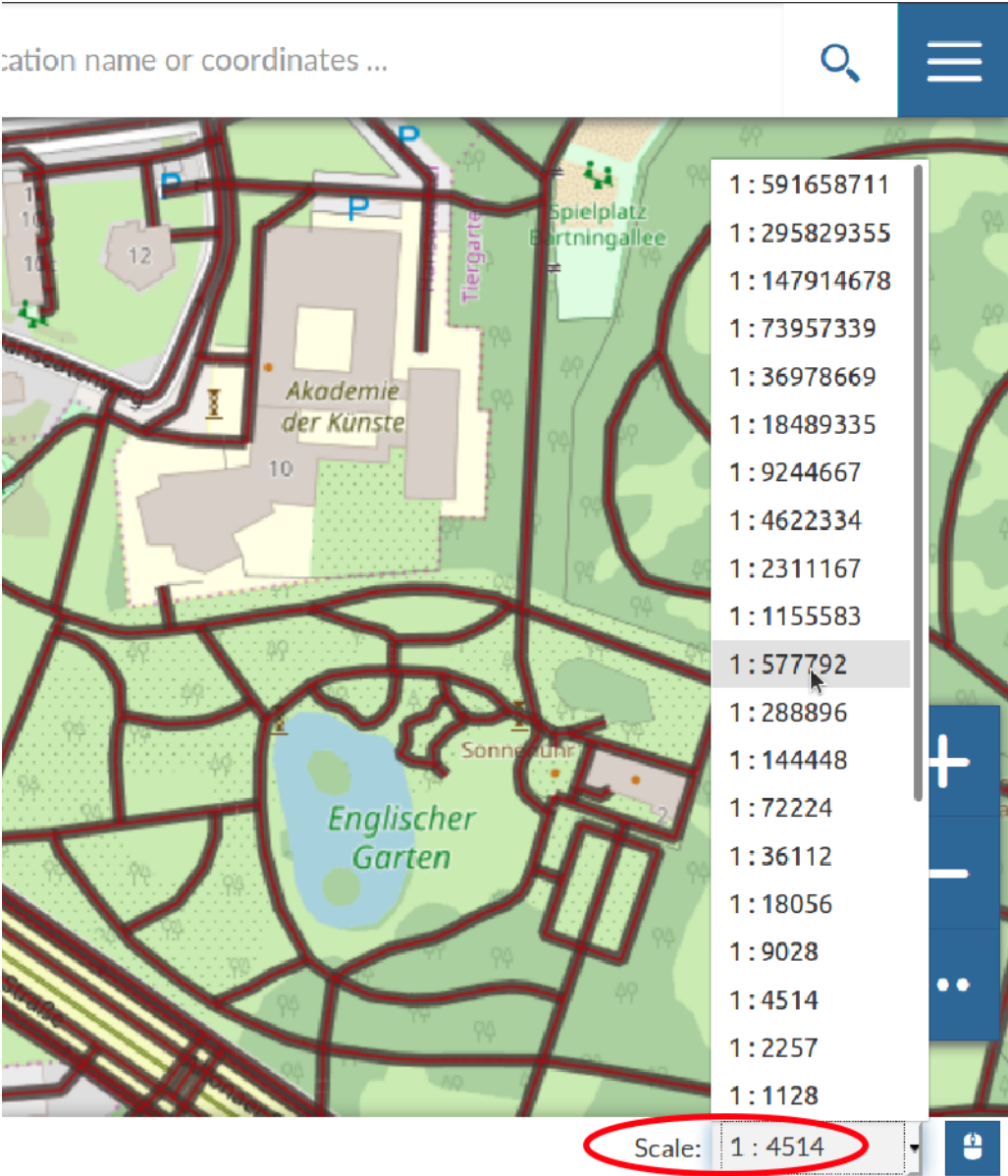


Fig. 225: The Map Scale

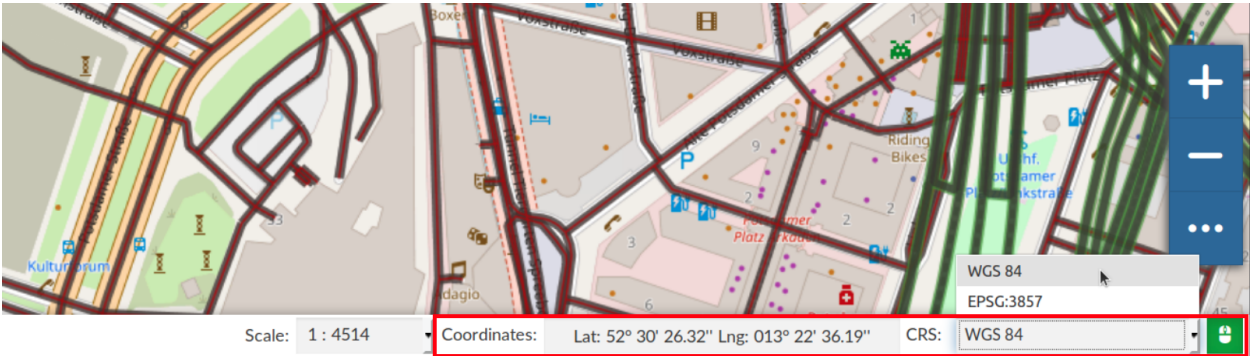


Fig. 226: The Pointer Coordinates and the CRS

1.1.7 Publishing Data

In GeoNode, each resource can be published in order to share it with other people. Once a *Map* has been published you can embed it in your web pages, your blog or your web site.

An easy way to accomplish that is to use an `iframe`. See the following steps:

- Open the *Map Information* page and copy the *URL*

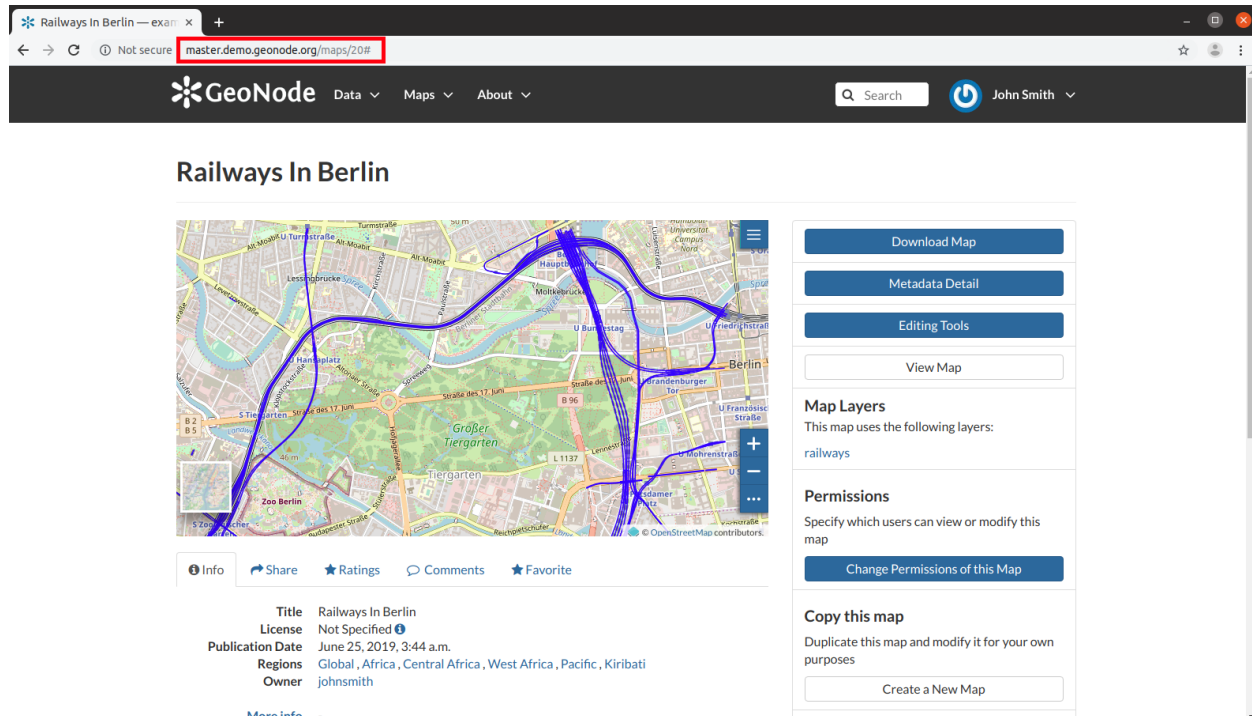


Fig. 227: The Map Information Page URL

- Add `/embed` to the URL so that it will be like this `"http://master.demo.geonode.org/maps/11/embed"`
- Use this URL inside an html `iframe` as `src` value

```
<iframe
  style="border: none;" height="400" width="600"
  src="http://master.demo.geonode.org/maps/11/embed">
</iframe>
```

- Put this html block of code inside your web pages to display the map.

Saving an html file with this code you can test your map on your pc, look at the following picture.

As you can see, some basic functionalities will be available to the user: the *Table of Contents (TOC)*, the *Basemap Switcher*, the *Sidebar Tools* and the *Options Menu Tools*.

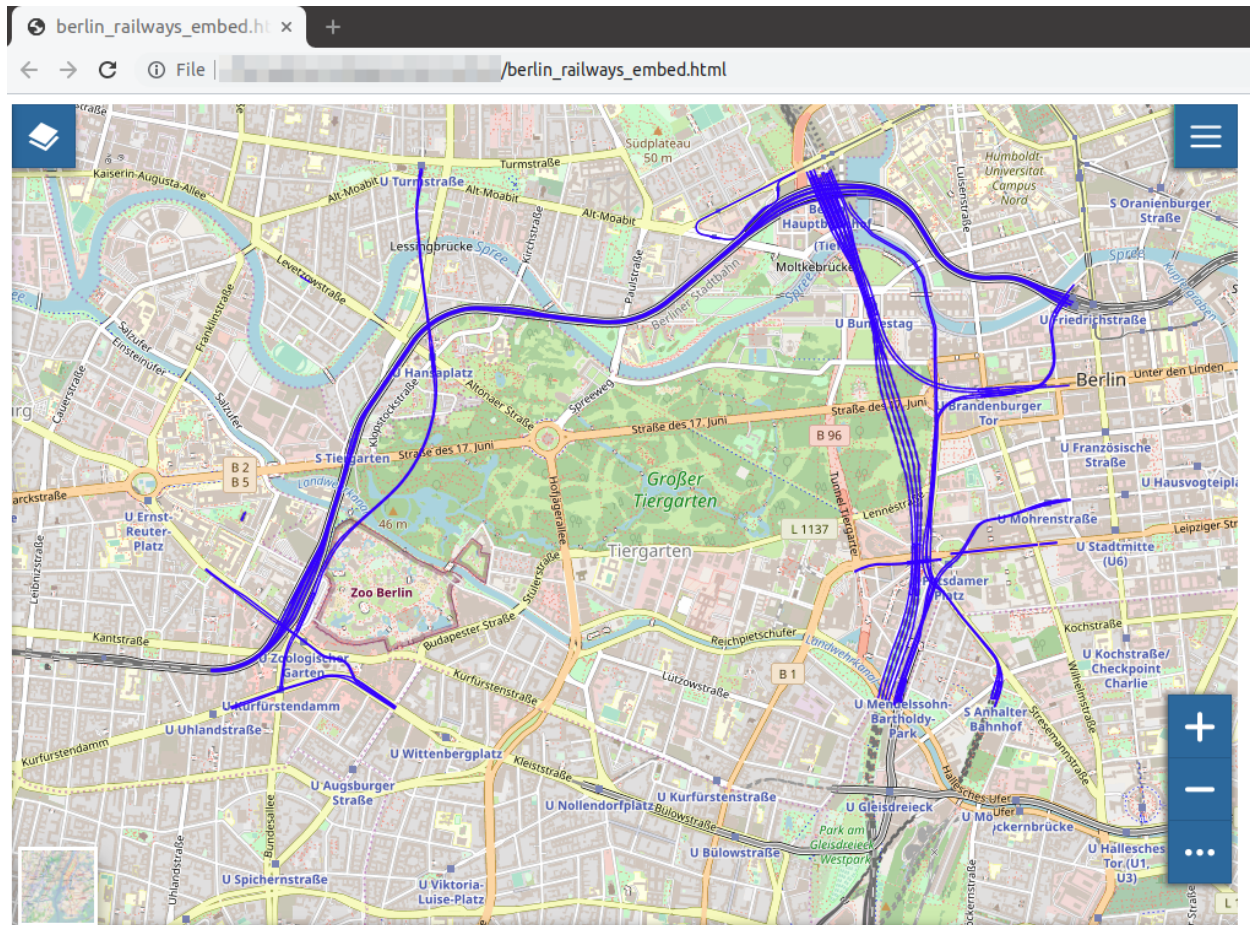


Fig. 228: The Embedded Map

1.1.8 Using GeoNode with Other Applications

Your GeoNode project is based on core components which are interoperable and as such, it is straightforward for you to integrate with external applications and services. This section will walk you through how to connect to your GeoNode instance from other applications and how to integrate other services into your GeoNode project. When complete, you should have a good idea about the possibilities for integration, and have basic knowledge about how to accomplish it. You may find it necessary to dive deeper into how to do more complex integration in order to accomplish your goals, but you should feel comfortable with the basics, and feel confident reaching out to the wider GeoNode community for help.

QGIS Desktop

QGIS is a professional GIS application that is built on top of and proud to be itself Free and Open Source Software (FOSS). QGIS is a volunteer driven project if you are interested you can find more information at <https://www.qgis.org>.

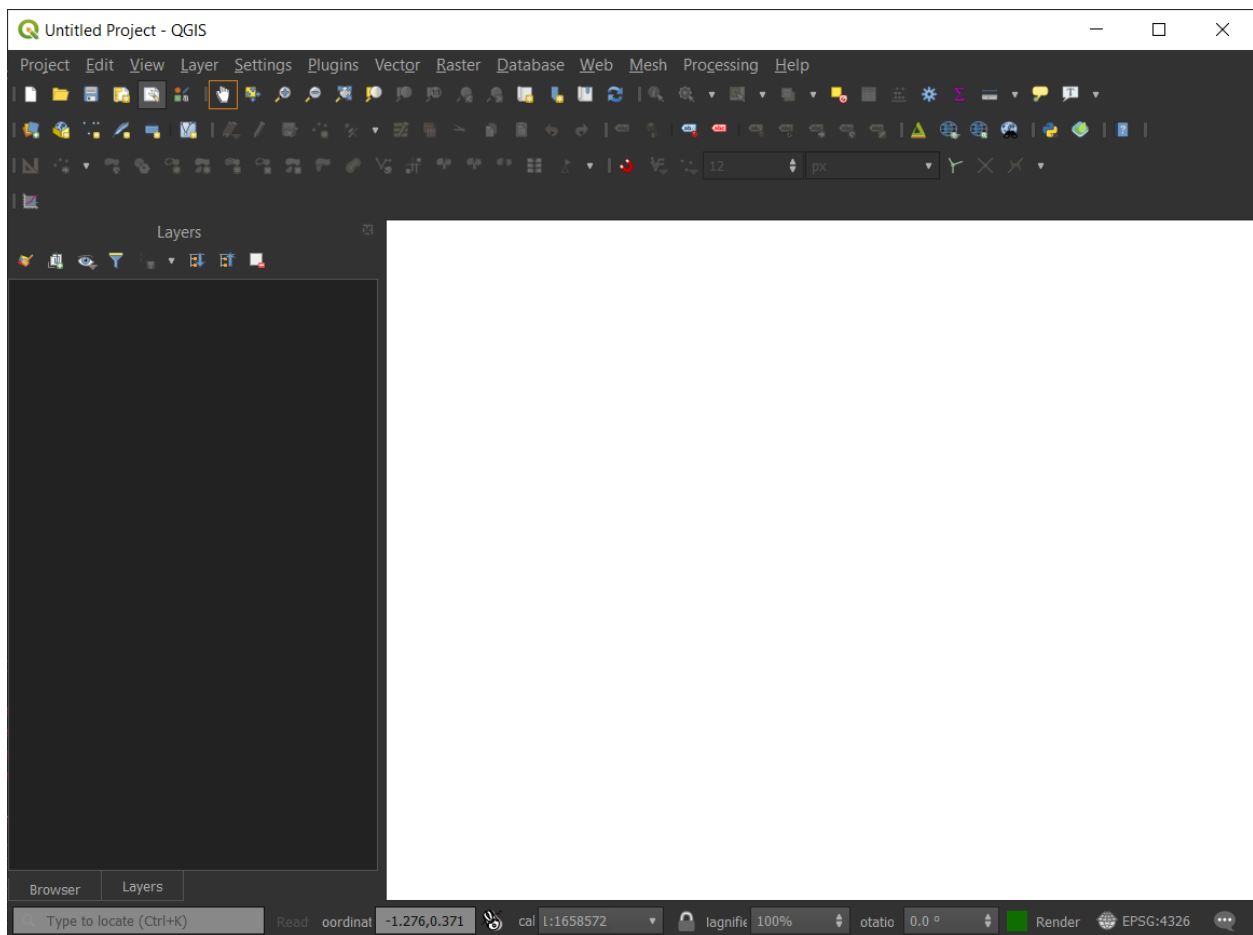


Fig. 229: QGIS Desktop Main Window

How can I connect to Geonode?

Open QGIS Desktop and go to **Layer Menu > Data Source Manager**. At the bottom of Data Source Manager, you can see a tab with the name and an icon related to Geonode. This is because Geonode is recognized as a data source inside QGIS.

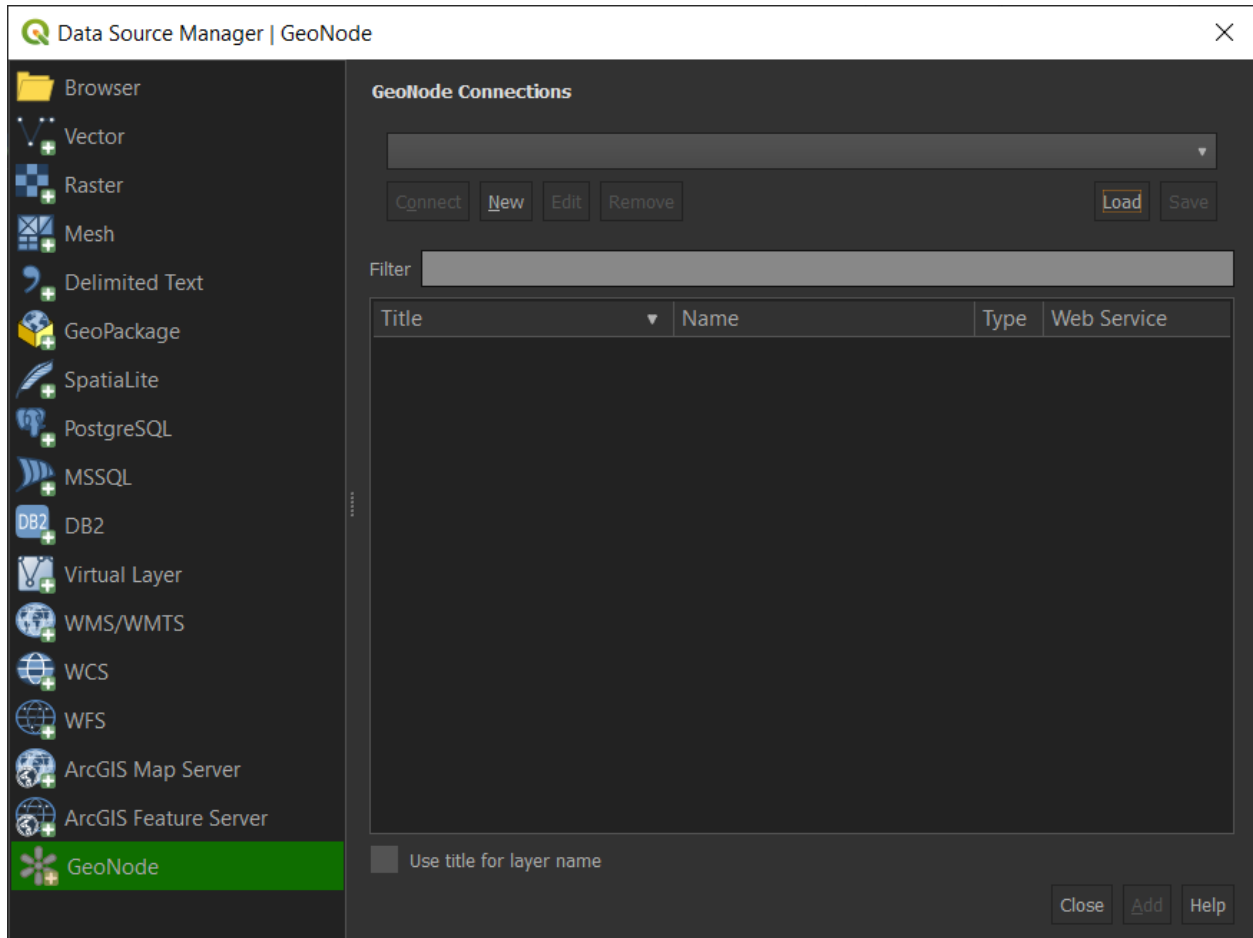


Fig. 230: *Data Source Manager Dialog*

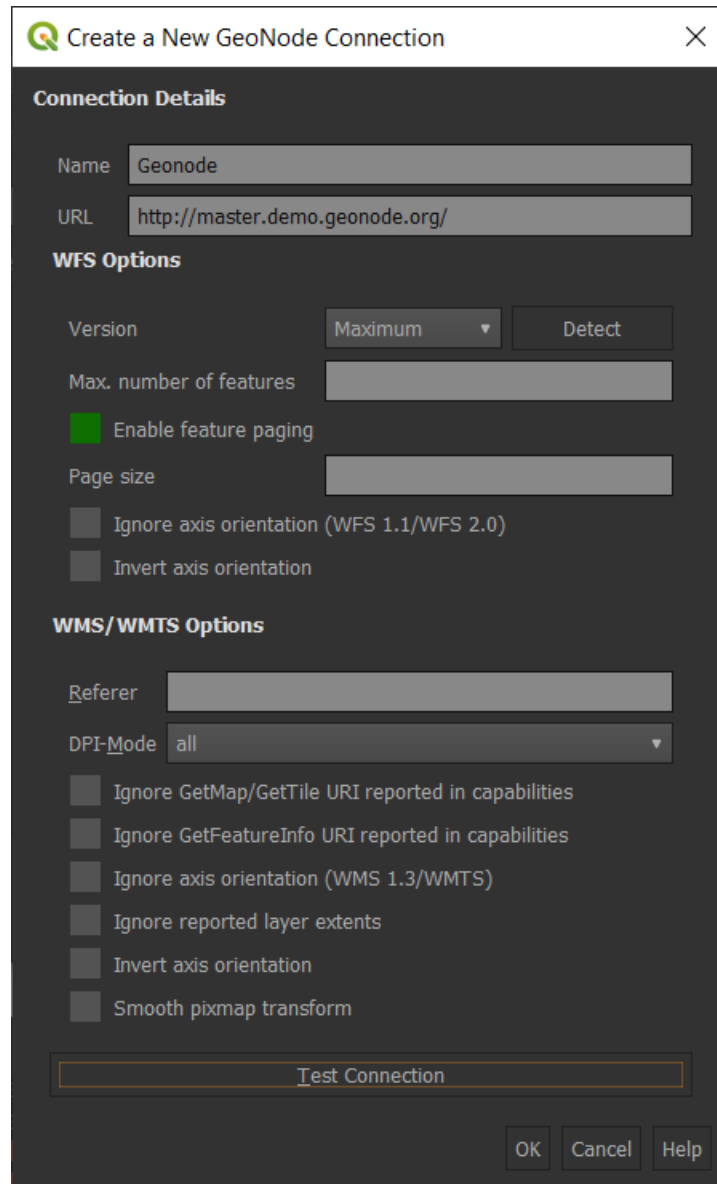
Note: It's possible as well load Geonode instances from an existence file this is useful to share between users or to backup existence connections.

To add a new Geonode instance, in the Geonode tab selected click on **New** and you will see the following dialog:

In the dialog Fill the name as you like and in the URL put the link of the Geonode instance. It's possible edit some WFS and WMS options to optimize the connection. If everything is ok you will receive the following successful connection dialog:

After the successful dialog it's now possible to load all layers of the Geonode instance clicking on **Connect** button. You can see both WMS and WFS connections of the Geonode and you can load to QGIS Desktop.

After select a layer (WMS or WFS) click on the **Add** button and the layer will be displayed in the main window of QGIS.



The dialog box is titled "Create a New GeoNode Connection" and contains the following sections:

- Connection Details**
 - Name:
 - URL:
- WFS Options**
 - Version:
 - Max. number of features:
 - ☒ Enable feature paging
 - Page size:
 - ☐ Ignore axis orientation (WFS 1.1/WFS 2.0)
 - ☐ Invert axis orientation
- WMS/WMTS Options**
 - Referer:
 - DPI-Mode:
 - ☐ Ignore GetMap/GetTile URI reported in capabilities
 - ☐ Ignore GetFeatureInfo URI reported in capabilities
 - ☐ Ignore axis orientation (WMS 1.3/WMTS)
 - ☐ Ignore reported layer extents
 - ☐ Invert axis orientation
 - ☐ Smooth pixmap transform

At the bottom, there is a button and three buttons: , , and .

Fig. 231: *Details of Geonode instance Dialog*

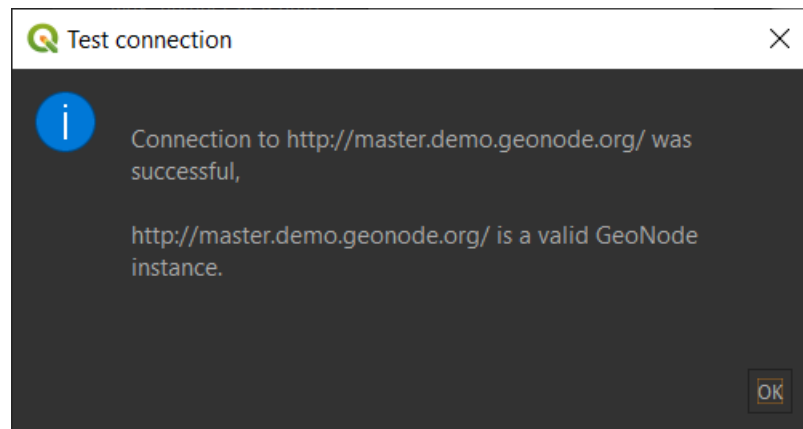


Fig. 232: Successful connection Dialog

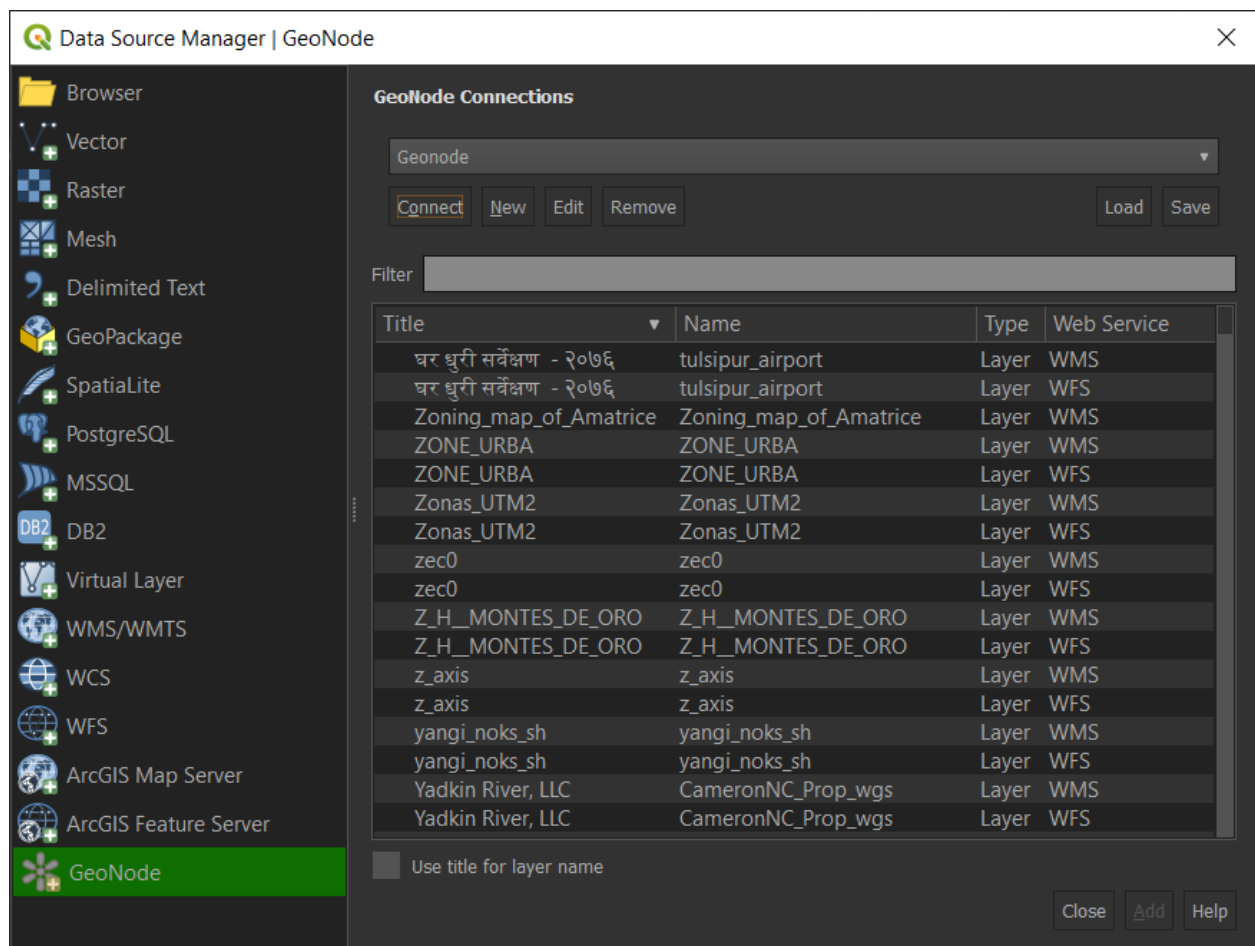


Fig. 233: Geonode instance layers Dialog

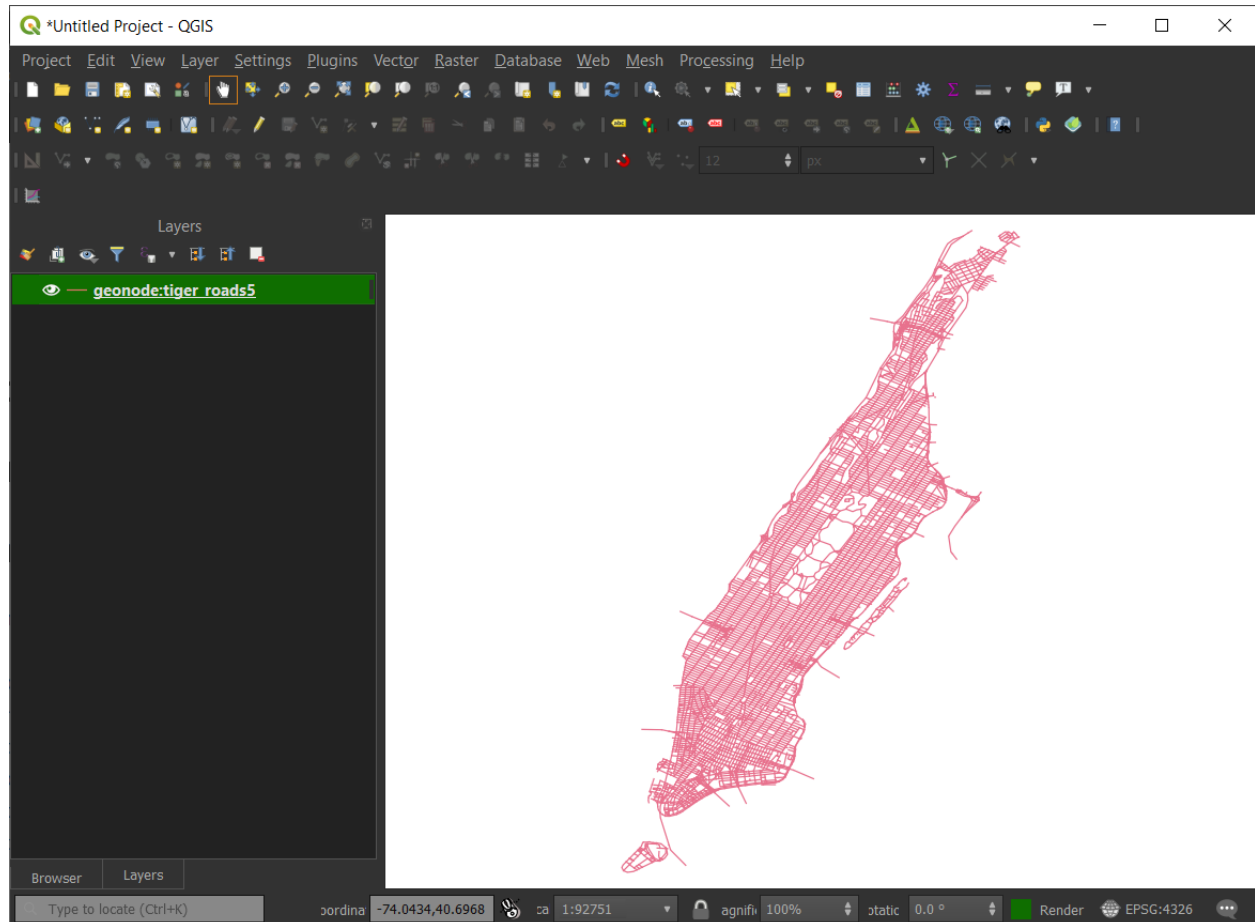


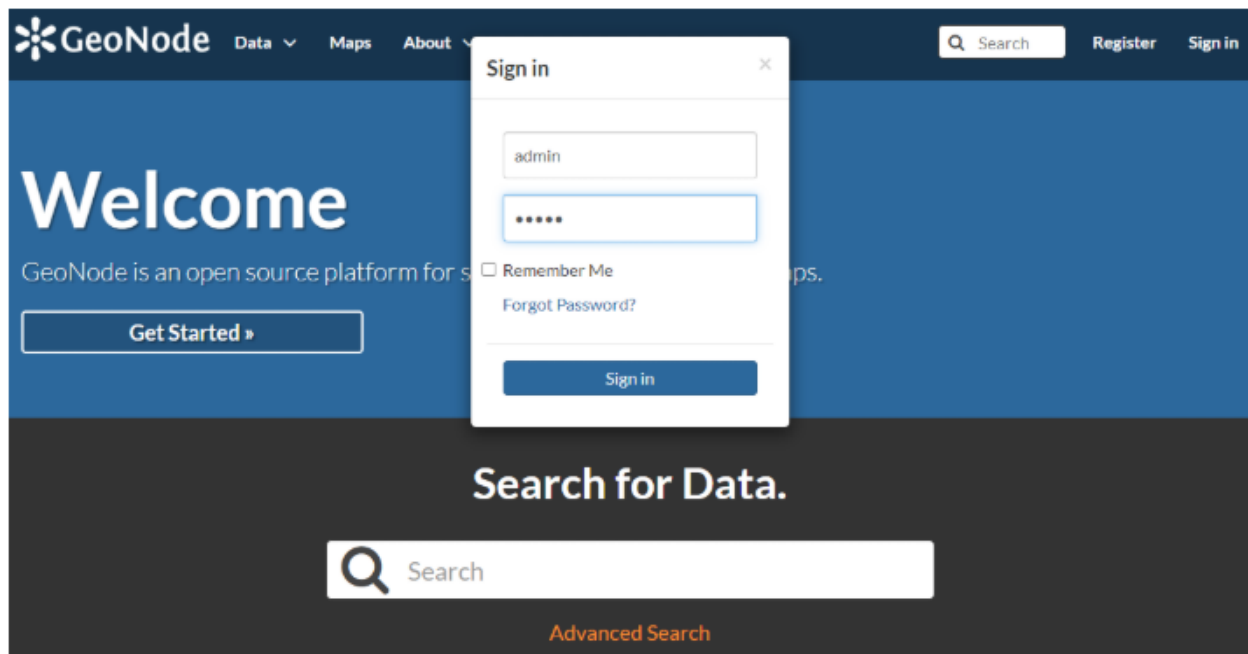
Fig. 234: Example of Geonode layer

Warning: This procedure only work with public layers. If the layers are for private use is necessary to do the standard qgis add remote WMS/WFS layers (through **Data Source Manager**) along with basic auth method and specific endpoints.

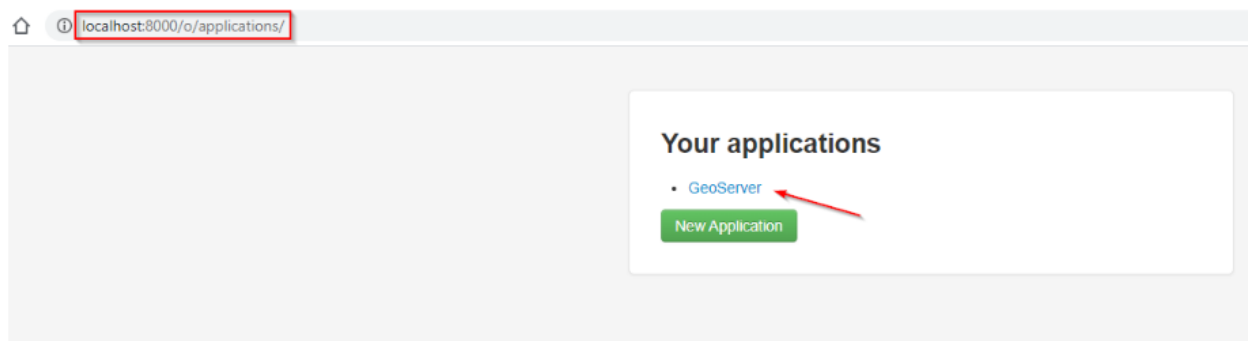
Connect to Private layers by using OAuth2

GeoNode OAuth2 Client App Setup

Login to GeoNode as a superuser



Browse to <http://<geonode>/o/applications/>



Create a new specific app or, better, edit the existing one (“GeoServer”) based on [OAuth2 Authorization Code Grant Type](#)

Click on “Edit” and add the Redirect URI <http://127.0.0.1:7070/qgis-client> as shown below

Note: This is an example. The port and path of the URI can be customized. They must be the same on both GeoNode

and QGIS Client as shown later.

GeoServer

Client id
Jrchz2oPY3akmzndmgUTYrs9gcZlgoV20YPSvqaV

Client secret
[Redacted]

Client type
confidential

Authorization Grant Type
authorization-code

Redirect Uris
http://localhost:8080/geoserver/index.html
http://localhost/geoserver/index.html
http://127.0.0.1:7070/qgis-client

Go Back Edit Delete

Also you will need the *Client ID* and *Client Secret* keys later when configuring QGIS.

Configure QGIS Desktop Client OAuth2 Authentication

Open the QGIS Desktop Client and add a new OWS remote Layer configuration

Create a new service connection

Provide the connection details

Note: *It is Important that the URL ends with /gs/ows*

When finished click on “+” in order to add a new auth configuration

Provide the needed information as shown below:

- Name: *any descriptive string*

Edit application GeoServer

Name

Client id

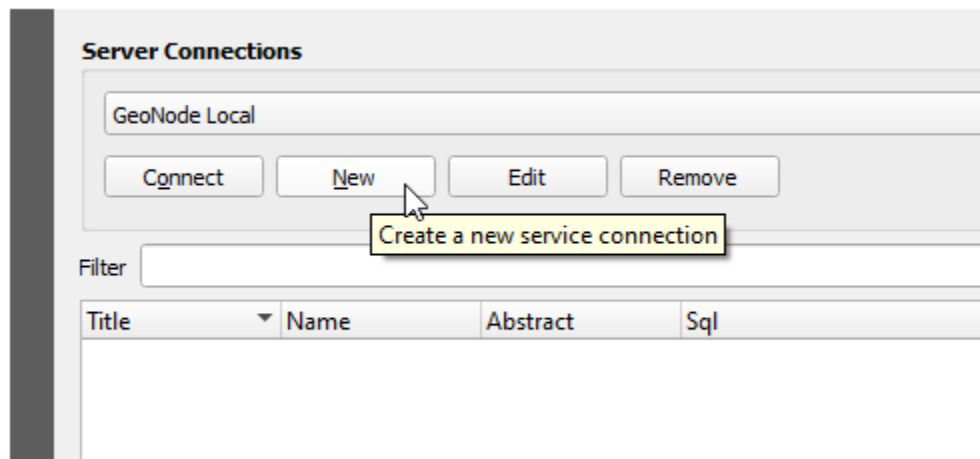
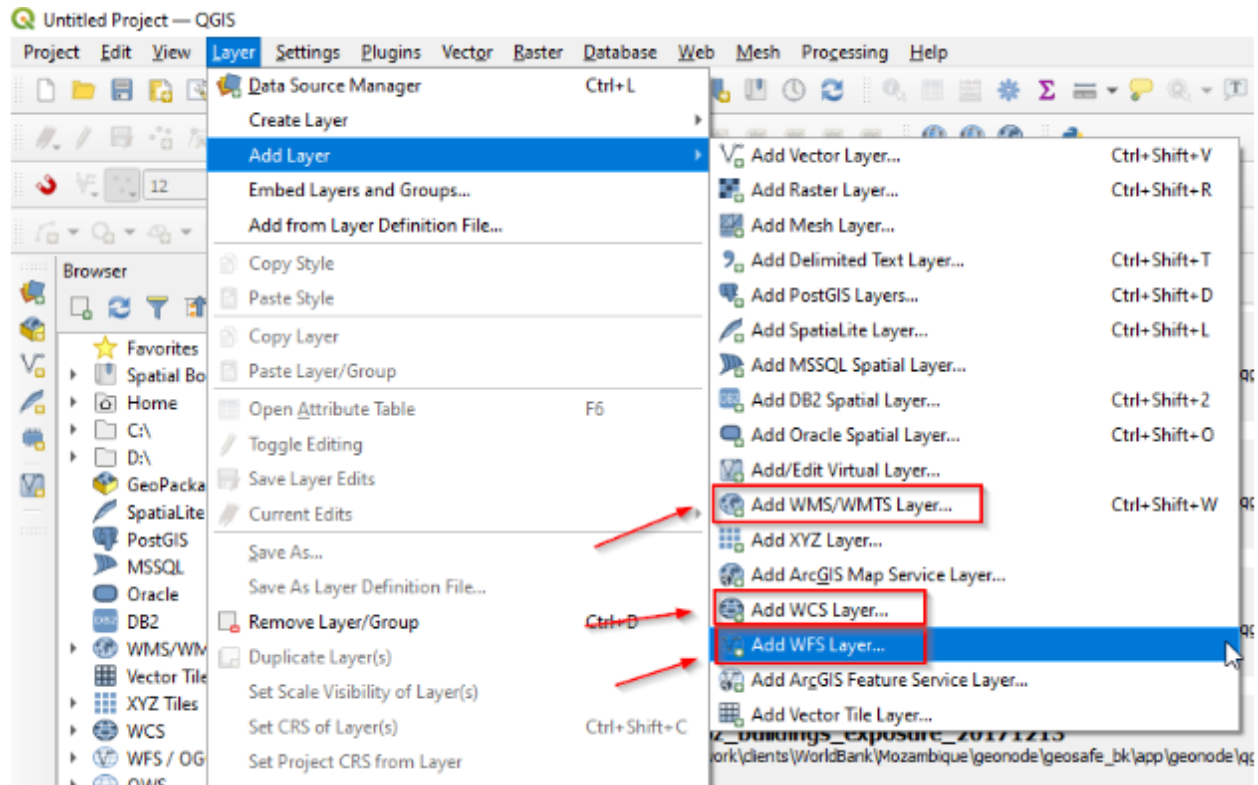
Client secret

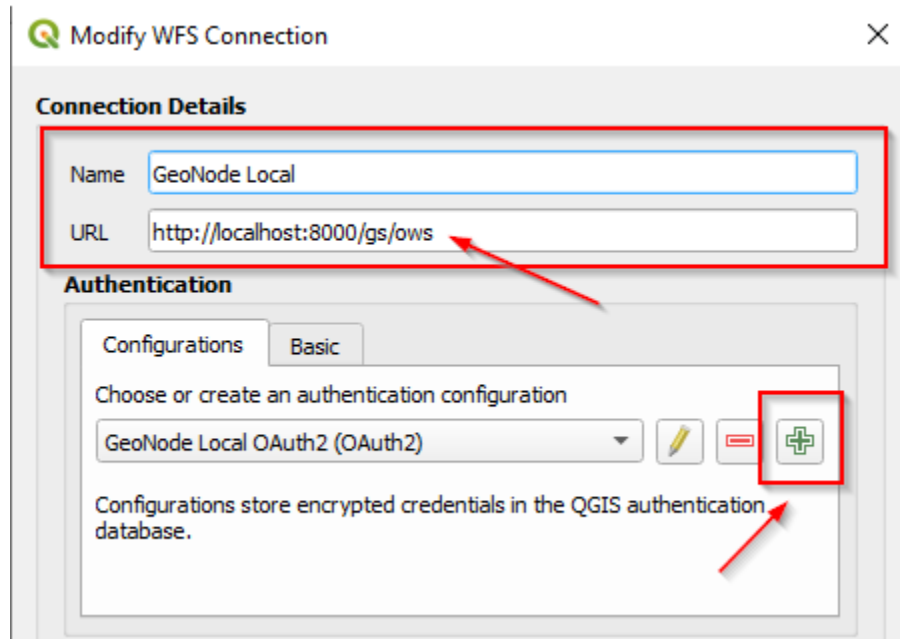
Client type

Authorization grant type

Redirect uris

Algorithm





- Type: *OAuth2 authentication*
- Grant Flow: *Authorization Code*
- Request URL: *must end with /o/authorize/*
- Token URL and Refresh URL: *must end with /o/token/*
- Redirect URL: *must match with the one defined on GeoNode above*
- Client ID and Client Secret: *must match with the one defined on GeoNode above*
- Scopes: *openid write*
- Enable the persistent Token Session via Headers

Save and click on “Connect”. QGIS will redirect you on a browser page asking to GeoNode to authenticate. Approve the Claims and go back to QGIS.

Remove Saved Token Sessions From QGIS and Login with another User

Edit the QGIS configuration

Click on the “pencil”

Clean up the saved *Tokens* and save

Try to connect again.

Authentication

Name: Id:

Resource:

OAuth2 authentication

Configure Defined Software Statement

Grant Flow: **Authorization Code**

Description:

Request URL:

Token URL:

Refresh Token URL:

Redirect URL:

Client ID:

Client Secret:

Scope:

API Key:

Advanced

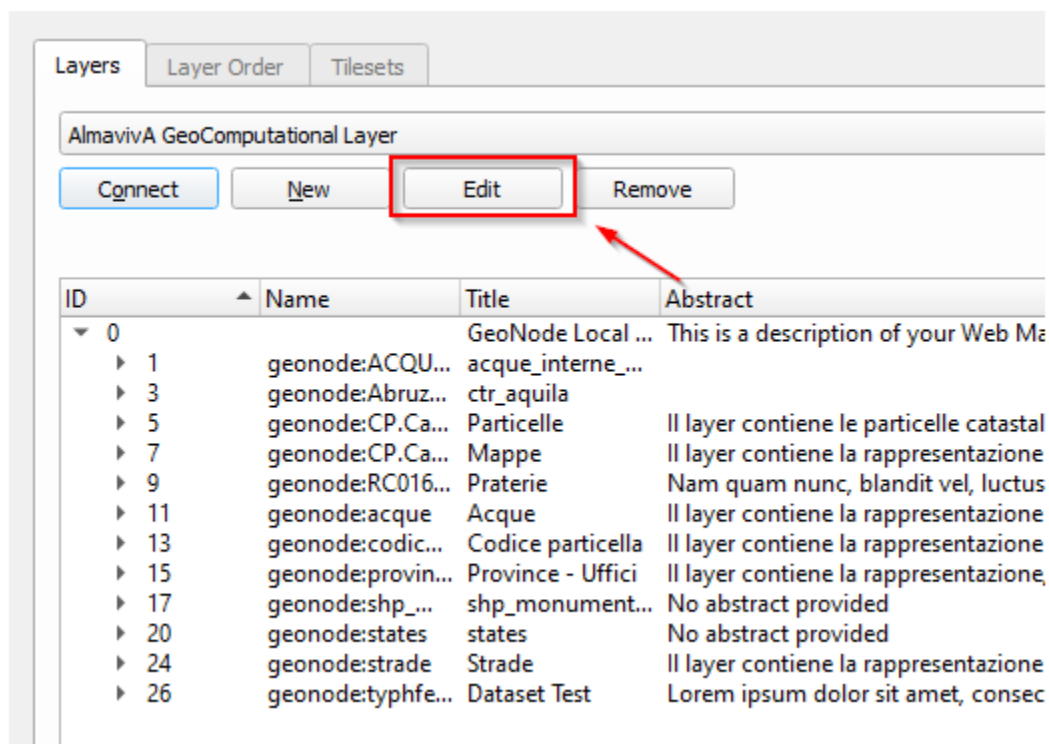
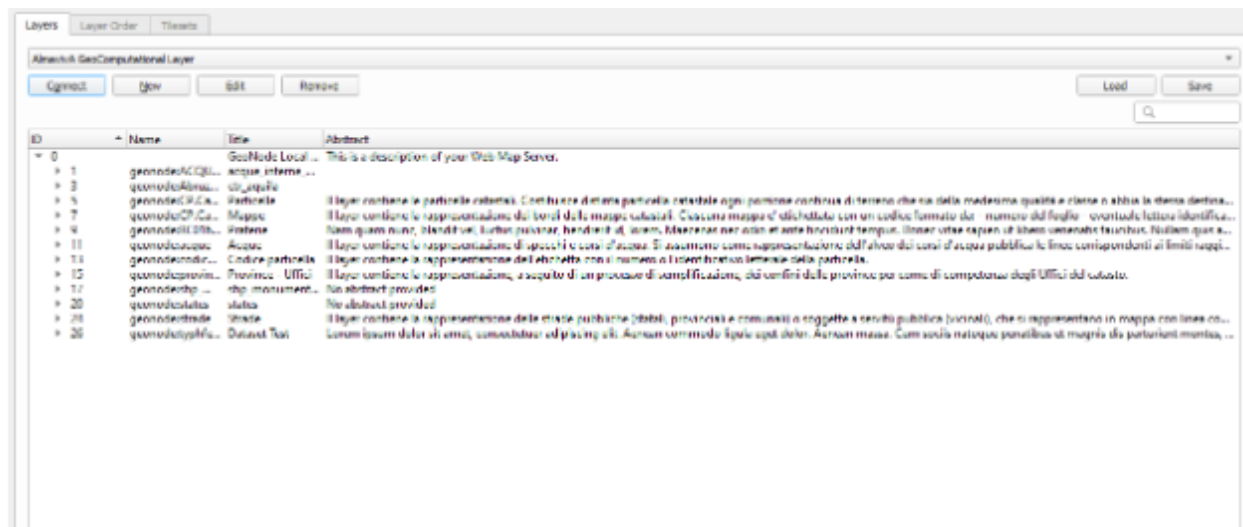
Token Session: ☒ Persist between launches

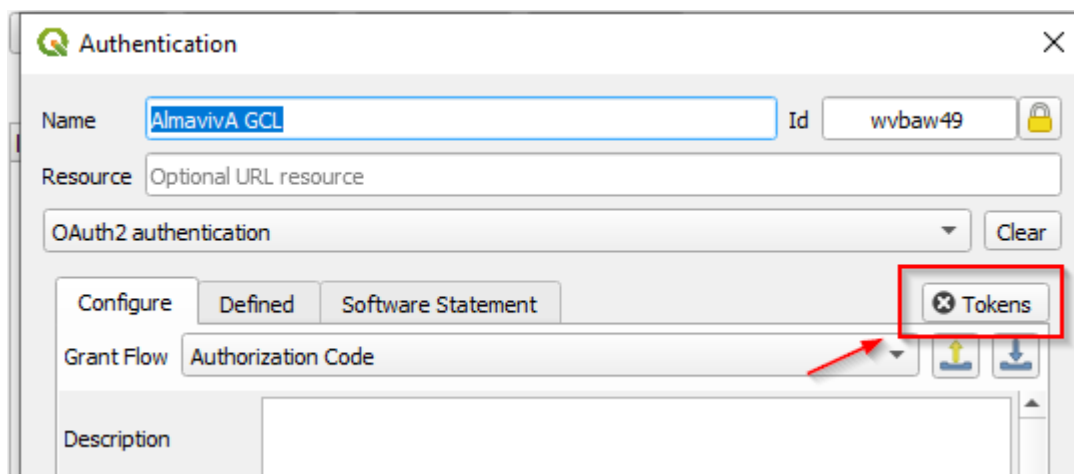
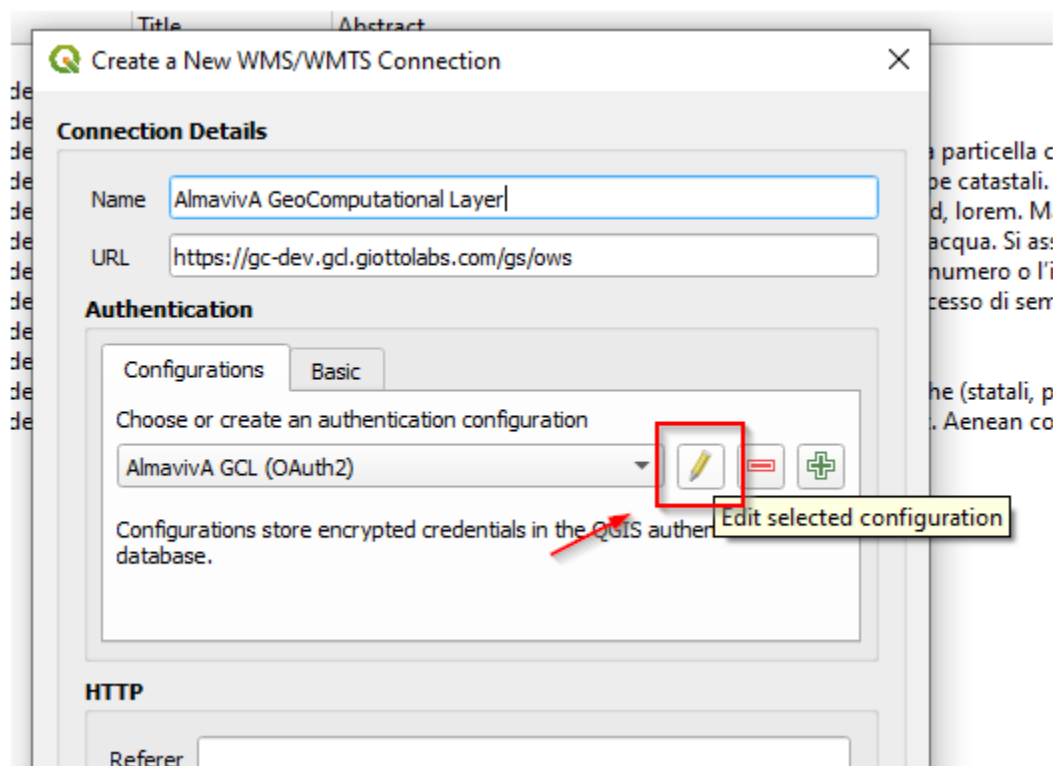
Access Method:

Request Timeout:

► Extra initial request parameters

Note: Saving writes directly to authentication database





GeoStory

GeoStory is a MapStore tool integrated in GeoNode that provides the user a way to create inspiring and immersive stories by combining text, interactive maps, and other multimedia content like images and video or other third party contents. Through this tool you can simply tell your stories on the web and then publish and share them with different groups of GeoNode users or make them public to everyone around the world.

To build a new or explore existing GeoStory go to *Apps* menu and once in *Explore Apps* page on top right dropdown button *Create New Apps* choose *GeoStory*.

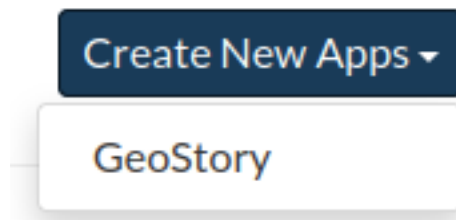


Fig. 235: New GeoStory Apps option

Now you landed on the GeoStory edition page that is composed of the following sections:

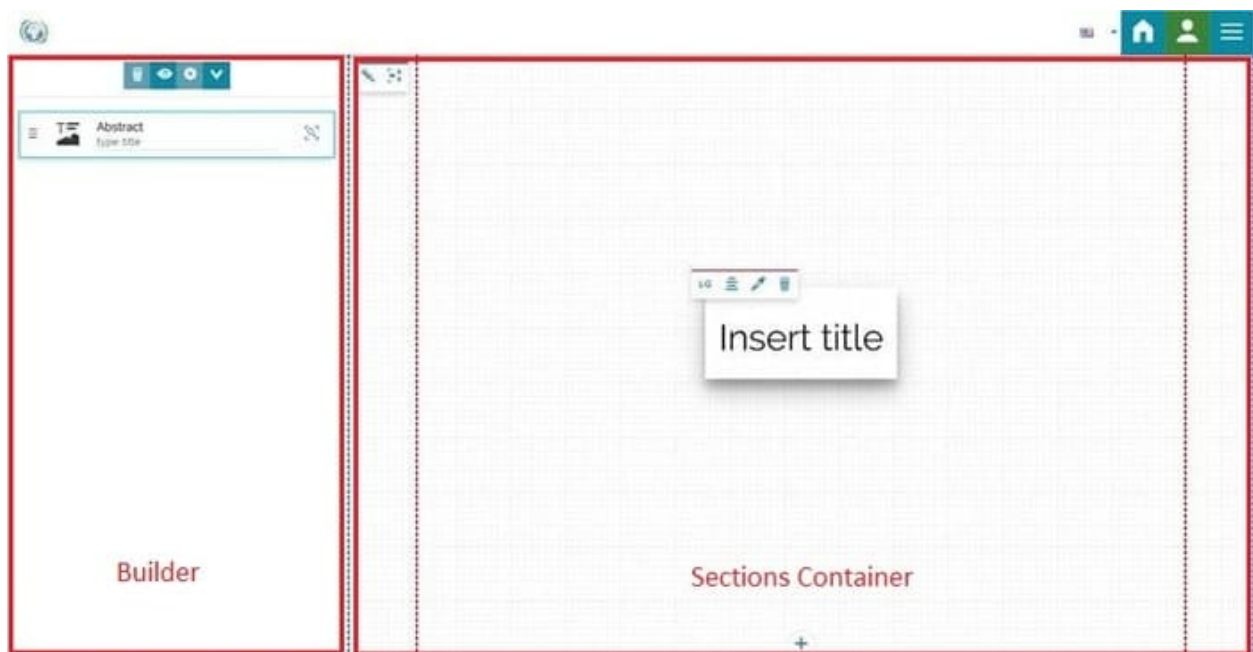



Fig. 236: New GeoStory Apps option

The GeoStory content is organized in Sections, that can be added with the  button in the *Container* area. In particular, the user can add to the story the following kind of sections:

- [Title Section](#)

For more information on these specific section please follow the official MapStore documentation:

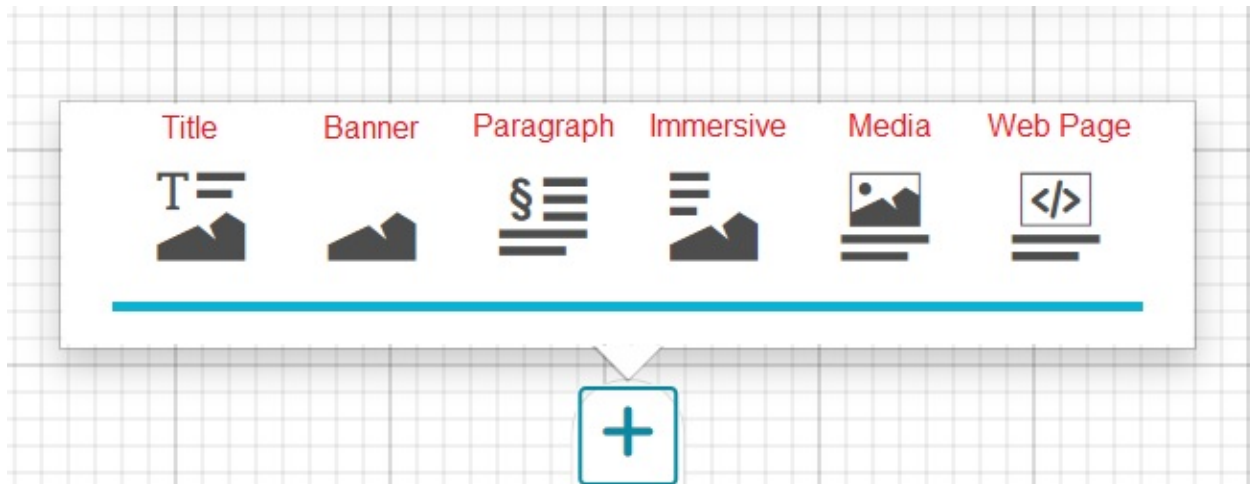



Fig. 237: *GeoStory Sections Types*

- Banner Section
- Paragraph Section
- Immersive Section
- Media Section
- Web Page Section

Add GeoNode content to GeoStory

With GeoNode you can add content to your GeoStory using internal GeoNode documents and maps as well external sources. This ability to add internal GeoNode content makes the GeoStory creation a very usefull feature.

To add GeoNode content to your GeoStory use the  button on top of your GeoStory section.

From here you can add *Images*, *Videos* and *Maps*. To enable GeoNode internal catalog, on *Services* dropdown choose *GeoNode* as shown in picture down. On the left you get a list of media documents available with a complementary text filter feature on top.

To save your GeoStory on the top right hamburger button choose *Save as...*

Now your GeoStory can be shared with everyone!



Fig. 238: Add Media to GeoStory

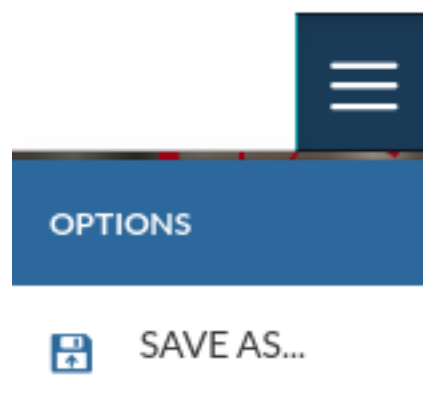


Fig. 239: Save GeoStory

Further Reading

Follow the link below to get more detailed information about the usage of GeoStory.

[GeoStory Documentation](#)