







## GeoNode User & Administration Management

## **Accounts and users**

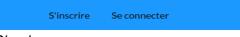
GeoNode is primarily a *social* platform, and thus a primary component of any GeoNode instance is the user account. This section will guide you through account registration, updating your account information, and viewing other user accounts.

- Creating a new account
- Managing your profile
- Setting notification preferences
- Viewing other user accounts

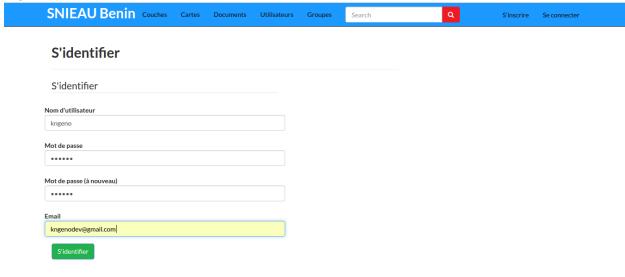
## Creating a new account

Before you can save or edit any layers on a GeoNode instance, you need to create an account.

- 1. From any page in the web interface, you will see a Register link. Click that link, and the register form will appear
- 2. Note
- 3. 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 side does that for you.



4. Sign in screen

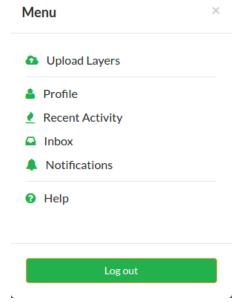


- 5. On the next page, fill out the form. Enter a username and password in the fields. Also, enter your email address for verification
- 6. The admin will confirm your registration

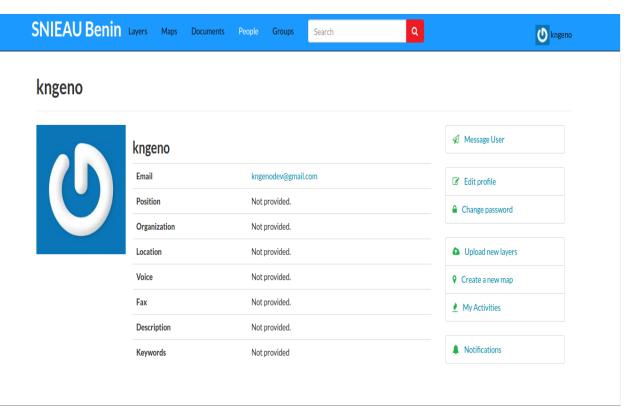
## Managing your profile

Your profile contains personal information.

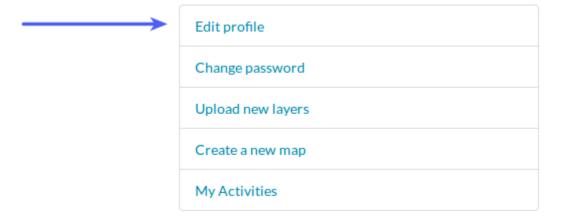
1. Click on your user name in the top right of the screen. A drop-down list will show. Click on Profile to enter the Profile settings page.



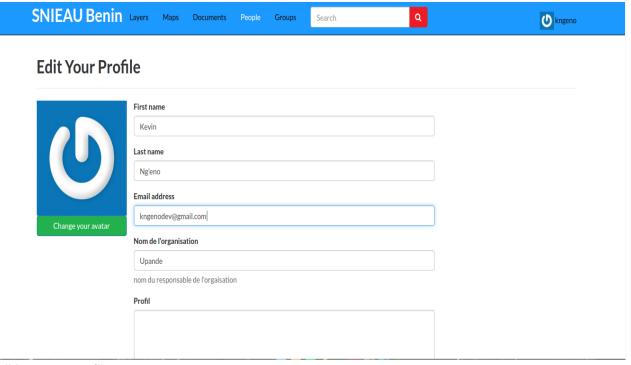
- 2. Link to your profile
- 3. The next page shows your profile, which is currently empty.



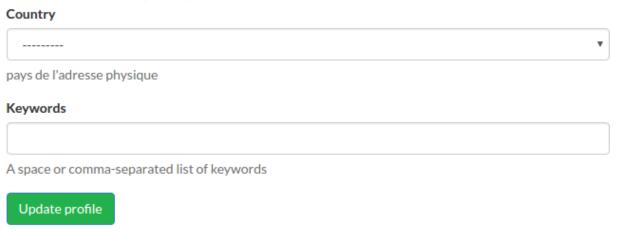
- 4. Profile page
- 5. Click the Edit profile information link.



- 6. Link to edit your profile
- 7. On this page, your personal information can be set, including your avatar. Enter some details in the Profile box as well as your city and country info.



- 8. Editing your profile
- 9. When finished, click Update profile.



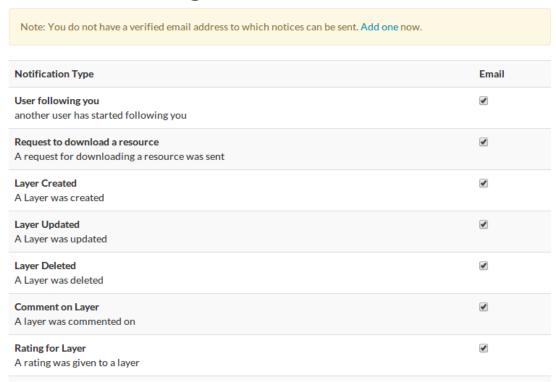
- 10. Link to save your profile updates
- 11. You will be returned to the main profile page. Now click Account settings.

## **Setting notification preferences**

By default GeoNode sends notifications to the users for events that the users could be subscribed such as a new layer uploaded or a new rate added to a map.

 you can adjust your notification settings by clicking on your user name in the top right of the screen. A drop-down list will show. Click on Notifications to enter the Notifications Settings page.

## **Notification Settings**

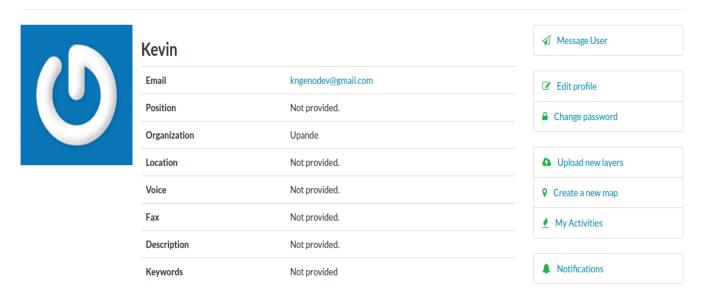


- 2. make sure to have a verified email address to which notices can be sent. If not, click on the proposed link to add one
- 3. now check/uncheck the notification types you wish to receive or not receive. It is possible to be notified for the events listed above

## Viewing other user accounts

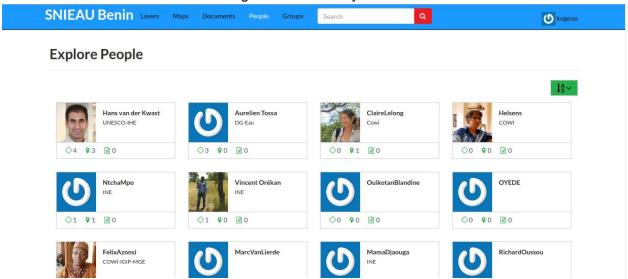
Now that your account is created, you can view other accounts on the system. Note that on the main profile page there are options for following (and blocking) other users.

## Kevin Ng'eno (kngeno)

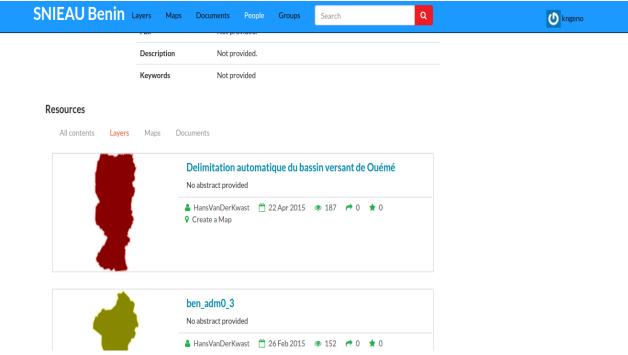


### Profile page

1. To see information about other users on the system, click the People link on the top toolbar. You will see a list of users registered on this system.

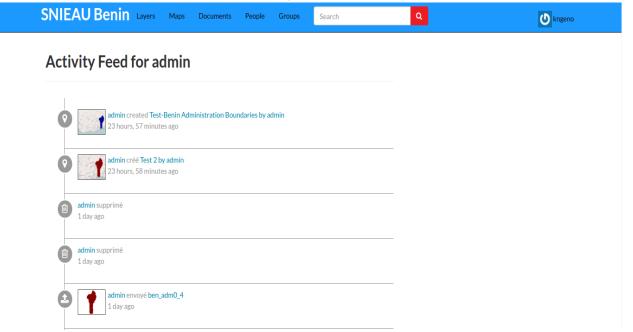


- 2. List of users
- 3. Click on the user name for a particular user. You will see the layers owned by this user.



List of layers owned by a user

1. You can also click Activities to see the activity feed.



## Managing layers

After user accounts, the next primary component of GeoNode is the **layer**. Layers are a published resource representing a raster or vector spatial data source. Layers also can 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.

- Uploading a layer
- Layer information
  - Downloads
  - Laver Detail Tabs
- Sharing layers
  - Anonymous access
  - o Sharing with social media
- Adding more layers

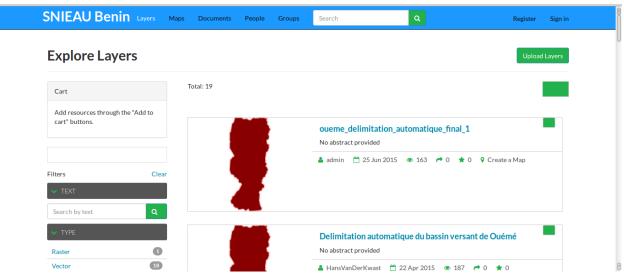
## **Uploading a layer**

Now that we have taken a tour of GeoNode and viewed existing layers, the next step is to upload our own.

In your data pack is a directory called data. Inside that directory is a shapefile called **oueme\_delimitation\_automatique\_final\_1.shp**. This is a data set containing administrative boundaries for the San Andres Province. This will be the first layer that we will upload to GeoNode.

- 1. Navigate to the GeoNode welcome page.
- 2. Click the Layers link on the top toolbar. This will bring up the Layers menu.
- 3. Main toolbar for GeoNode

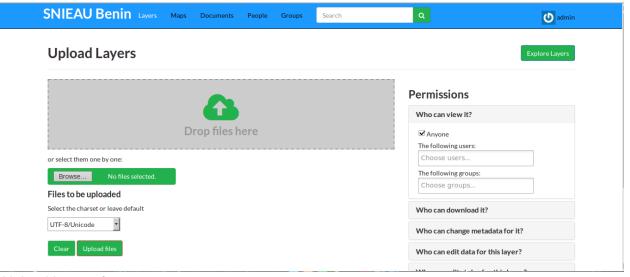




- 4. Layers menu
- 5. Click Upload Layers in the Layers toolbar. This will bring up the upload form

## Upload Layers

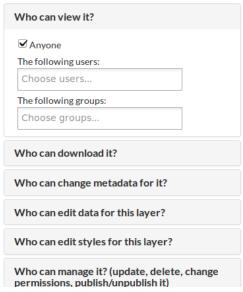
6. Layers toolbar



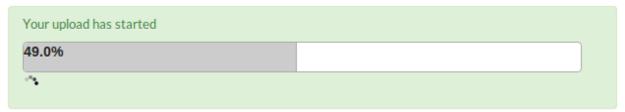
- 7. Upload Layers form
- 8. Fill out the form.
  - Click on the Browse... button. This will bring up a local file dialog. Navigate to your data folder and select all of the four files composing the shapefile (oueme\_delimitation\_automatique\_final\_1.shp, oueme\_delimitation\_automatique\_final\_1.dbf, oueme\_delimitation\_automatique\_final\_1.shx, oueme\_delimitation\_automatique\_final\_1.prj).
  - Alternatively you could drag and drop the four files in the Drop files here area.
  - The upload form should appear like this now:

# Upload Layers Permissions Who can view it? ✓ Anyone The following users: Choose users... The following groups: Choose groups... Who can download it? Who can change metadata for it? Who can edit data for this layer?

- 9. Files ready for upload
- 10. GeoNode has the ability to restrict who can view, edit, and manage layers. On the right side of the page, under Who can view and download this data?, select Any registered user. This will ensure that anonymous view access is disabled.
- 11. In the same area, under Who can edit this data?, select the Only the following users or groups option and type your username. This will ensure that only you are able to edit the data in the layer.



- 12. Permissions for new layer
- 13. Click Upload to upload the data and create a layer. A dialog will display showing the progress of the upload.



- 14. Upload in progress
- 15. Your layer has been uploaded to GeoNode. Now you will be able to access to the its info page (clicking on the Layer Info button), access to its metadata edit form (clicking on the Edit Metadata button) or to manage the styles for it (clicking on the Manage Styles button).



## Layer information

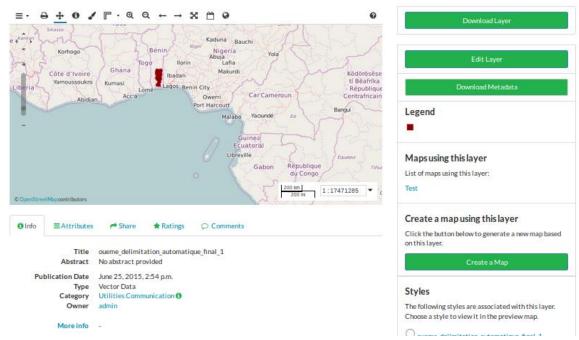
After upload, another form will displaying, containing metadata about the layer. Change any information as desired, and then click Update at the very bottom of the form.



## Layer metadata

After the update, the layer will display in a preview window.

## oueme delimitation automatique final 1



Layer preview

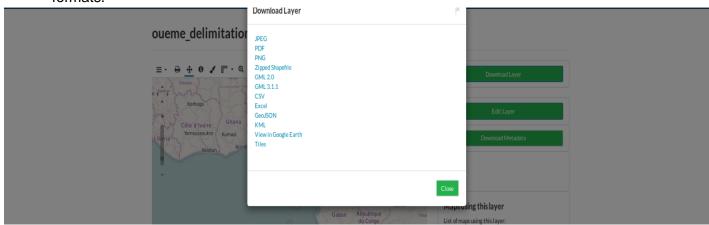
This page contains lots of options for managing this layer. Let's look at a few of them:

## **Downloads**

At the top of the page there are two buttons titled Download Layer and Download Metadata. These buttons provide access to the ability to extract geospatial data and metadata from within GeoNode. In this way, GeoNode allows for two way data and metadata access; one can import as well as export data.

## **Data**

1. Click the Download Layer button. You will see a list of options of the supported export formats.

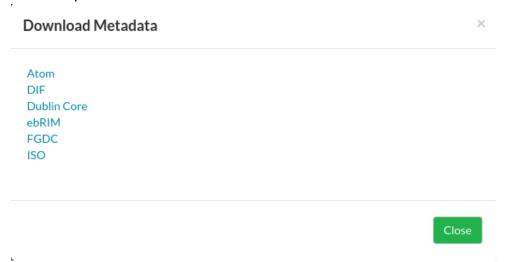


## Available export formats

- 1. Click the option for Zipped Shapefile.
- 2. GeoNode will process the request and bring up a Save As dialog. Save this file to your computer, and note how it is the same content as was uploaded.

## Metadata

1. Click the Download Metadata button. You will see a list of options of the supported export formats.

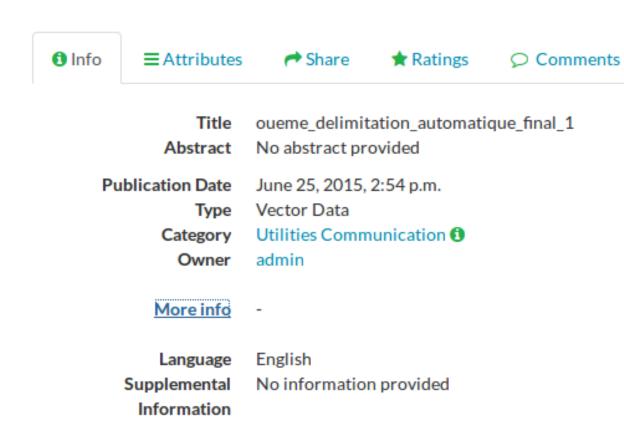


## Available metadata export formats

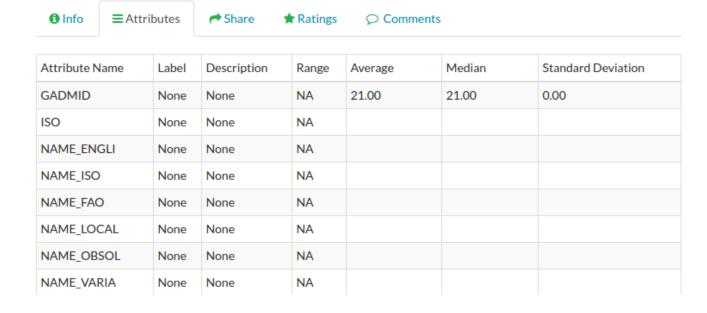
- 1. Click the option for DUBLIN CORE.
- GeoNode will process the request and display XML metadata. Try clicking various metadata formats, and note how it is the same metadata content in various formats compatible with metadata and GIS packages.

## **Layer Detail Tabs**

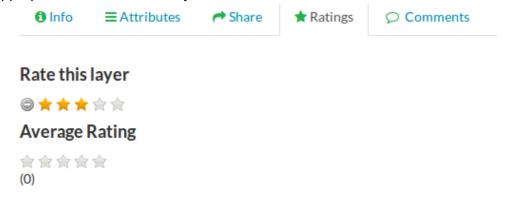
1. Scroll down the page toward the bottom. Five tabs are available: Info, Attributes, Share, Ratings, and Comments. The info tab is already highlighted, and presents basic information about the layer, of the kind that was seen on the layer list page.



- 2. Layer Info tab
- Click the Attributes tab. This lists the attributes of the layer, including statistics (range, average, median and standard deviation). Layer attribute statistics are made available only for numeric attributes. As we can see, this layer's attributes are not numeric, so no statistics are calculated.



- 4. Attributes tab
- 5. Click the Ratings tab. This tab allows you (and others viewing this page) to rate this layer. Ratings can be based on quality, accuracy, or any other metric. Click on the appropriate star to rate this layer.



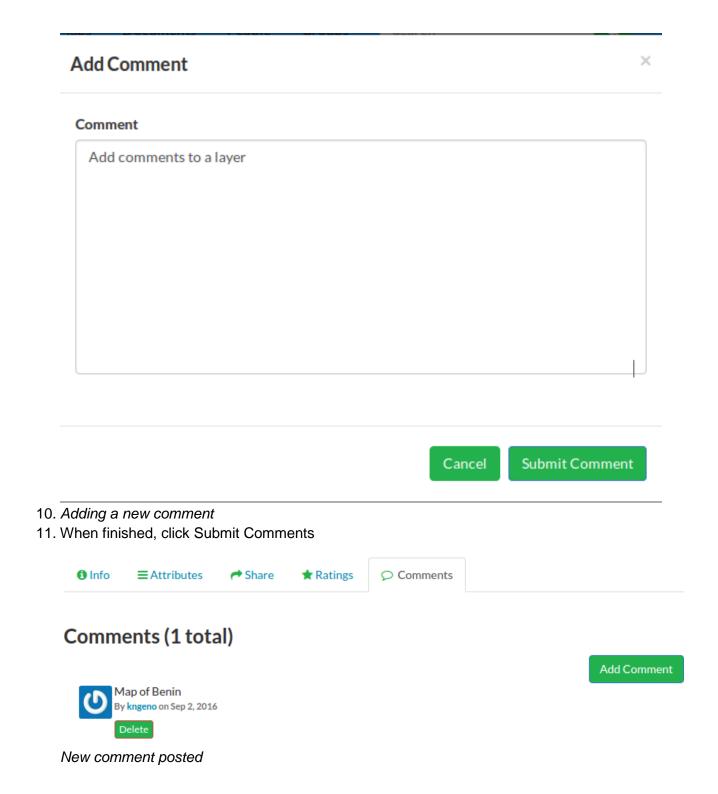
- 6. Layer Ratings tab
- 7. Click the Comments tab. This tab allows you to leave a comment for other viewing this layer.



## Comments (0 total)

Add Comment

- 8. Layer Comments tab
- 9. Click the Add Comment button and enter a comment.

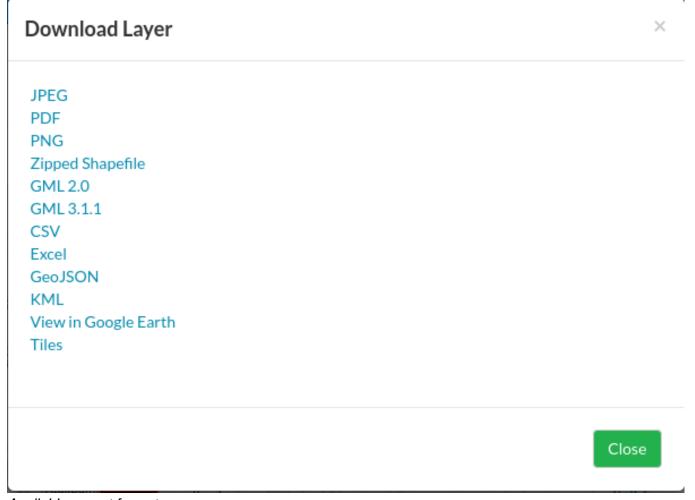


## **Downloads**

At the top of the page there are two buttons titled Download Layer and Download Metadata. These buttons provide access to the ability to extract geospatial data and metadata from within GeoNode. In this way, GeoNode allows for two way data and metadata access; one can import as well as export data.

## **Data**

1. Click the Download Layer button. You will see a list of options of the supported export formats.



## Available export formats

- 1. Click the option for Zipped Shapefile.
- 2. GeoNode will process the request and bring up a Save As dialog. Save this file to your computer, and note how it is the same content as was uploaded.

### Metadata

1. Click the Download Metadata button. You will see a list of options of the supported export formats.

# Atom DIF Dublin Core ebRIM FGDC ISO

Available metadata export formats

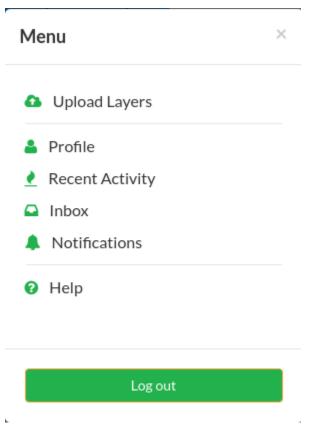
- 1. Click the option for DUBLIN CORE.
- GeoNode will process the request and display XML metadata. Try clicking various metadata formats, and note how it is the same metadata content in various formats compatible with metadata and GIS packages.

## **Sharing layers**

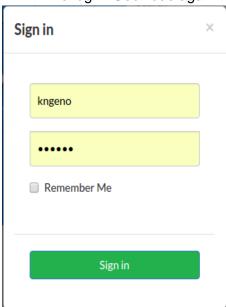
GeoNode has the ability to restrict or allow other users to access a layer and shared on social media.

## **Anonymous access**

- Go to the layer preview of the first layer uploaded, and copy the URL to that preview page.
- 2. Note
- 3. The URL should be something like: http://192.81.212.100/layers/geonode:oueme\_delimitation\_automatique\_final\_1
- 4. Now logout of GeoNode by clicking on your profile name and selecting Logout.

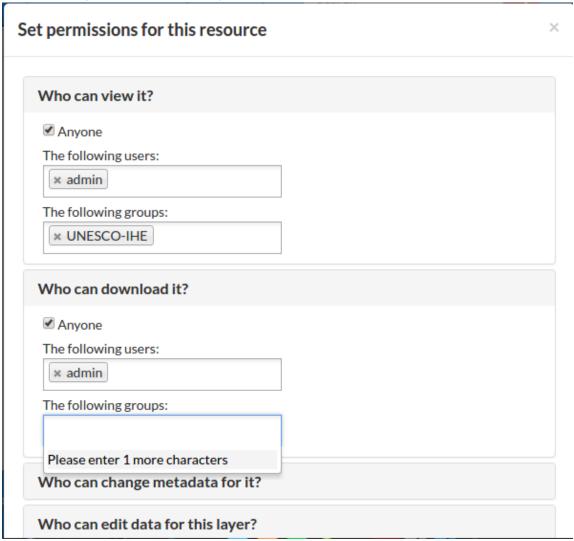


- 5. Logout
- 6. You will be redirected to the Login form. This is because when this layer was first uploaded, we set the view properties to be any registered user. Once logged out, we are no longer a registered user and so are not able to see or interact with the layer, unless we log in GeoNode again.



7. Unable to view this protected layer

8. To stop this process from happening, you need to ensure that your permissions are set so *anyone* can view the layer for others to see it on social networks.



This is done by selecting *anyone* in the layer permissions tab, be aware this now means your layer is public!

## Sharing with social media

1. On the taskbar below your username and profile picture there are three links to social media services, Twitter, Google Plus and Facebook.



## **Share This Layer**

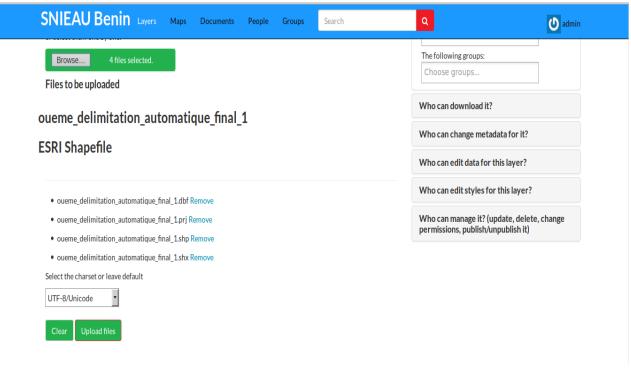
Email Facebook Twitter Google +

2. Upon clicking on these icons you will be taken through the application's process for posting to the social network. Ensure the permissions are set so *anyone* can view the layer if you want unauthenticated to be able to access it.

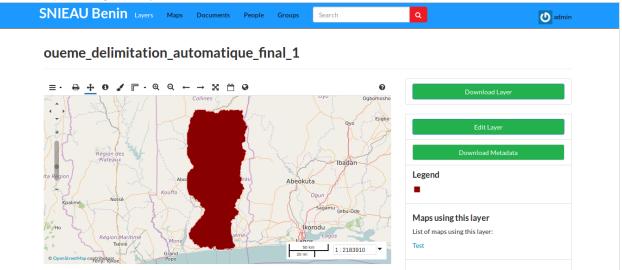
## **Adding more layers**

We've uploaded one layer so far. There is one more layer in the data directory associated with this workshop called **oueme\_delimitation\_automatique\_final\_1.shp**.

1. Upload this layer, referring to the directions on <u>uploading a layer</u>. As a difference, leave the permissions set to their default values.



2. Uploading the layer



3. Finished upload

## **Administrators Workshop**

Welcome to the GeoNode Training Administrators Workshop documentation v2.4. This workshop will teach how to install and manage a deployment of the <u>GeoNode</u> software application. At the end of this section you will master all the GeoNode sections and entities from

You will know how to:

an administrator perspective.

- 1. Use the GeoNode's Django Administration Panel.
- 2. Use the console Management Commands for GeoNode.
- 3. Configure and customize your GeoNode installation.

### **Prerequisites**

Before proceeding with the reading, it is strongly recommended to be sure having clear the following concepts:

- 1. GeoNode and Django framework concepts
- 2. Good knowledge of Python
- 3. Good knowledge of what is a geospatial server and geospatial web services.
- 4. Good knowledge of what is metadata and catalog.
- 5. Good knowledge of HTML and CSS.

## Usage of the GeoNode's Django Administration Panel

GeoNode has an administration panel based on the Django admin which can be used to do some database operations. Although most of the operations can and should be done through the normal GeoNode interface, the admin panel provides a quick overview and management tool over the database.

It should be highlighted that the sections not covered in this guide are meant to be managed through GeoNode.

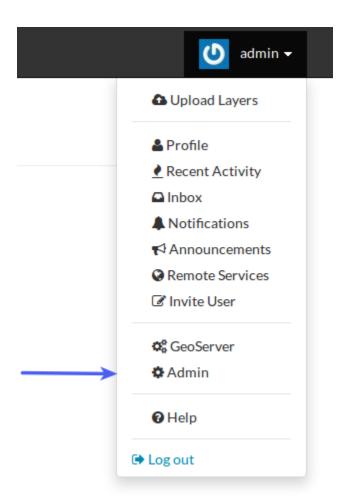
## Accessing the admin panel

Only the staff users (including the superusers) can access the admin interface.

Note

User's staff membership can be set by the admin panel itself, see how in the <u>Manage users and groups through the admin panel</u> section.

The link to access the admin interface can be found by clicking in the upper right corner on the user name, see figure



- Manage users and groups through the admin panel
- <u>Users</u>
- Groups
- Manage profiles using the admin panel
- Manage the metadata categories using the admin panel
- Manage layers using the admin panel
- Manage the maps using the admin panel
- Manage the documents using the admin panel

## Manage users and groups through the admin panel

The admin section called Auth has the link to access the Groups while the section called People has the link to access the Users, see figure



## **Users**

## Adding a user

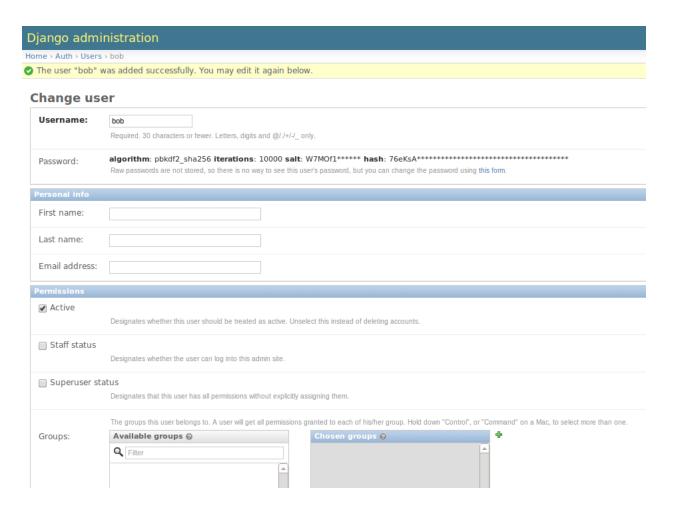
By clicking on the "add" link on the right of the Users link is possible to add a new user to the GeoNode site. A simple form asking for username and password will be presented, see figure



Upon clicking "save" a new form will be presented asking for some personal information and the rights the user should have.

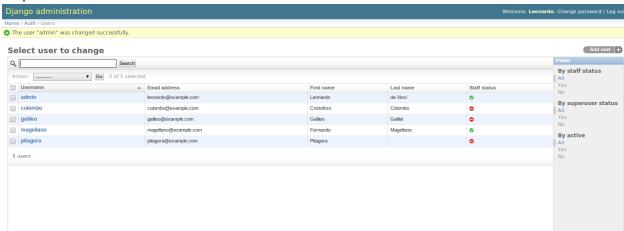
For a normal, not privileged user is enough to just fill the personal information and then confirm with "save".

If the user has to access the admin panel or be a superuser it's enough just to tick the "staff" and "superuser" checkboxes.



## Changing a user

To modify an existing user click on "Users" then on a username in the list. The same form will be presented.



## **Groups**

Although the "Groups" permissions system is not implemented yet in GeoNode is possible to create new groups with set of permissions which will be inherited by all the group members. The creation and management of a Group is done in a very similar way that the user one.

## Manage profiles using the admin panel

So far GeoNode implements two distinct roles, that can be assigned to resources such as layers, maps or documents:

- party who authored the resource
- party who can be contacted for acquiring knowledge about or acquisition of the resource

This two profiles can be set in the GeoNode interface by accessing the metadata page and setting the "Point of Contact" and "Metadata Author" fields respectively.

Is possible for an administrator to add new roles if needed, by clicking on the "Add Role" button in the "Base" -> "Contact Roles" section:



Clicking on the "People" section (see figure) will open a web for with some personal information plus a section called "Users".



Is important that this last section is not modified here unless the administrator is very confident in that operation.



## Manage the metadata categories using the admin panel

In the "Base" section of the admin panel there are the links to manage the metadata categories used in GeoNode



## Manage layers using the admin panel

Some of the layers information can be edited directly through the admin interface although the best place is in the layer -> metadata page in GeoNode.



Is not recommended to modify the Attributes neither the Styles.

Clicking on the Layers link will present a list of layers. By selecting one of them is possible to modify some information like the metadata, the keywords etc. It's strongly recommended to limit the edits to the metadata and similar information.

## Manage the maps using the admin panel

Currently the maps admin panel allows more metadata options that the GeoNode maps metadata page. Thus is a good place where to add some more detailed information.



The "Map Layers" section should not be used.

By clicking on a map in the maps list the metadata web form will be presented. Is possible to add or modify the information here. As for the layers, the more specific entries like the layers stack or the map coordinates should not be modified.

## **Management Commands for GeoNode**

Below is the list of the ones that come from the GeoNode application, the full list can be obtained by doing:

python manage.py help

## Importlayers:

Imports a file or folder with geospatial files to GeoNode. python manage.py importlayers <data\_dir>

**Updatelayers:** python manage.py updatelayers

## fixsitename:

Uses SITENAME and SITEURL to set the values of the default site object. python manage.py fixsitename

## **Debugging GeoNode Installations**

## Viewing the logs

GeoNode main log: This is the output of the Django application generated by Apache, it
may contain detailed information about uploads and high level problems.

The default location is /var/log/geonode/apache.log or /var/log/apache2/error.log.

It is set to a very low level (not very much information is logged) by default, but it's output can be increased by setting the logging level to DEBUG in /etc/geonode/local\_settings.py.

• **GeoServer log**: It contains most of the information related to problems with data, rendering and styling errors.

This one can be accessed at GEOSERVER\_DATA\_DIR/logs/geoserver.log, which is usually /var/lib/tomcat7/webapps/geoserver/data/logs/geoserver.log or /var/lib/geoserver/geonode-data/logs/geoserver.log.

It may also be symlinked in /var/log/geonode/geoserver.log.

- Tomcat logs: Tomcat logs could indicate problems loading GeoServer.
   They can be found at /var/lib/tomcat7/logs/catalina.out or /var/lib/tomcat/geoserver/logs/catalina.out.
- PostgreSQL logs: PostgreSQL is accessed by GeoServer and Django, therefore
  information about errors which are very hard to debug may be found by looking at
  PostgreSQL's logs.

They are located at /var/log/postgresql/postgresql-\$(psql\_version)-main.log where **\$(psql\_version)** depends on your local installation.

## **Security and Permissions**

This tutorial will guide you through the steps that can be done in order to restrict the access on your data uploaded to geonode.

First of all it will be shown how a user can be created and what permissions he can have. Secondly we will take a closer look on to layers, maps and documents and the different opportunities you have in order to ban certain users from viewing or editing your data.

## **Users**

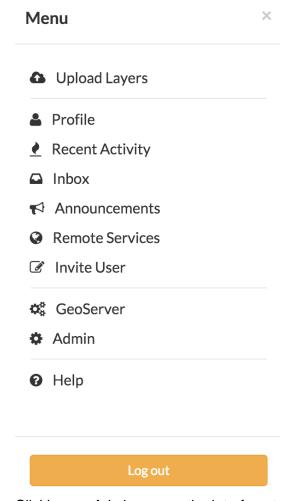
Your first step will be to create a user. There are three options to do so, depending on which kind of user you want to create you may choose a different option. We will start with creating a *superuser*, because this user is the most important. A superuser has all the permissions without explicitly assigning them.

The easiest way to create a superuser (in linux) is to open your terminal and type:

\$ python manage.py createsuperuser

You will be asked a username (in this tutorial we will call the superuser you now create *your superuser*), an email address and a password.

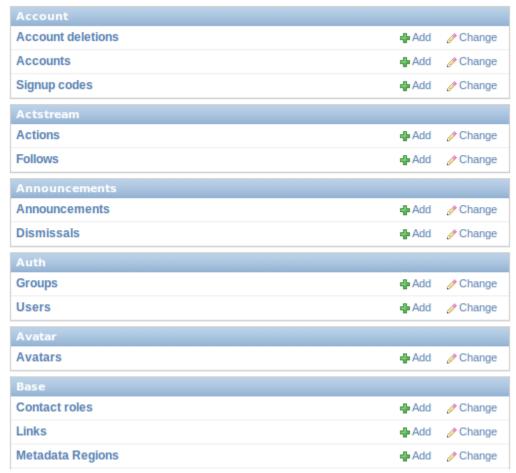
Now you've created a superuser you should become familiar with the *Django Admin Interface*. As a superuser you are having access to this interface, where you can manage users, layers, permission and more. To learn more detailed about this interface check this LINK. For now it will be enough to just follow the steps. To attend the *Django Admin Interface*, go to your geonode website and *sign in* with *your\_superuser*. Once you've logged in, the name of your user will appear on the top right. Click on it and the following menu will show up:



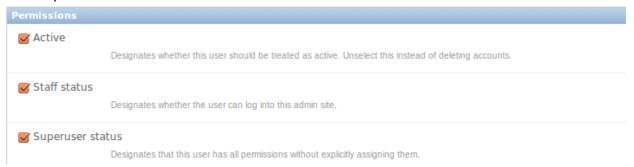
Clicking on Admin causes the interface to show up.

## Django administration

## Site administration



Go to *Auth* -> *Users* and you will see all the users that exist at the moment. In your case it will only be *your\_superuser*. Click on it, and you will see a section on *Personal Info*, one on *Permissions* and one on *Important dates*. For the moment, the section on *Permissions* is the most important.



As you can see, there are three boxes that can be checked and unchecked. Because you've created a superuser, all three boxes are checked as default. If only the box *active* would have been checked, the user would not be a superuser and would not be able to access the *Django* 

Admin Interface (which is only available for users with the *staff* status). Therefore keep the following two things in mind:

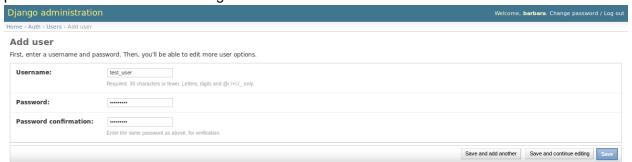
- a superuser is able to access the *Django Admin Interface* and he has all permissions on the data uploaded to GeoNode.
- an ordinary user (created from the GeoNode interface) only has *active* permissions by default. The user will not have the ability to access the *Django Admin Interface* and certain permissions have to be added for him.

Until now we've only created superusers. So how do you create an ordinary user? You have two options:

- 1. Django Admin Interface
- First we will create a user via the *Django Admin Interface* because we've still got it open.
  Therefore go back to *Auth* -> *Users* and you should find a button on the right that says
  Add user.



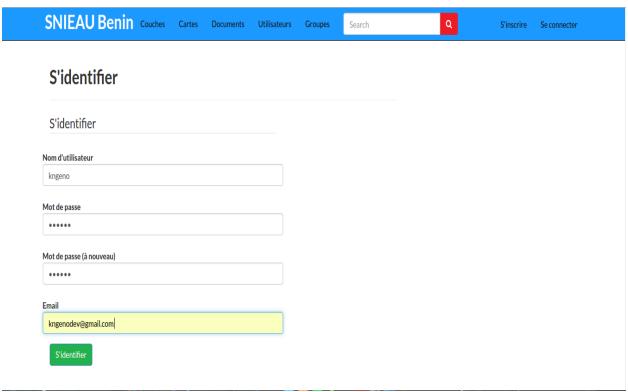
4. Click on it and a form to fill out will appear. Name the new user test\_user, choose a password and click *save* at the right bottom of the site.



- 5. Now you should be directed to the site where you could change the permissions on the user test\_user. As default only active is checked. If you want this user also to be able to attend this admin interface you could also check staff status. But for now we leave the settings as they are!
- 7. To test whether the new user was successfully created, go back to the GeoNode web page and try to sign in.
- 8. GeoNode website
- 9. To create an ordinary user you could also just use the GeoNode website. If you installed GeoNode using a release, you should
- 10. see a *Register* button on the top, beside the *Sign in* button (you might have to log out before).

## S'inscrire Se connecter

12. Hit the button and again a form will appear for you to fill out. This user will be named geonode\_user



13. By hitting *Sign up* the user will be signed up, as default only with the status *active*. As mentioned before, this status can be changed as well. To do so, sign in with *your\_superuser* again and attend the admin interface. Go again to *Auth* -> *Users*, where now three users should appear:

We now want to change the permission of the *geonode\_user* so that he will be able to attend the admin interface as well. Click on to *geonode\_user* and you will automatically be moved to the site where you can change the permissions. Check the box *staff status* and hit *save* to store the changes.

To sum it up, we have now created three users with different kind of permissions.

- your\_superuser: This user is allowed to attend the admin interface and has all available permissions on layers, maps etc.
- geonode\_user: This user is permitted to attend the admin interface, but permissions on layers, maps etc. have to be assigned.
- test\_user: This user is not able to attend the admin interface, permissions on layers, maps etc. have also to be assigned.

You should know have an overview over the different kinds of users and how to create and edit them. You've also learned about the permissions a certain user has and how to change them using the *Django Admin Interface*.

### Note

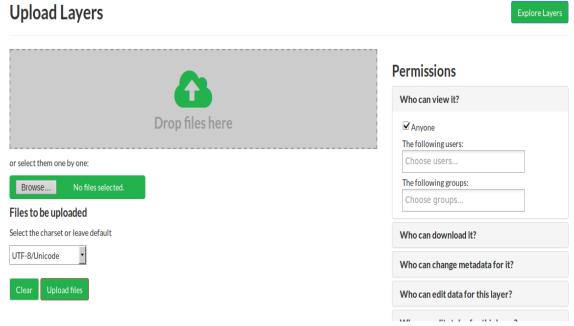
If you've installed GeoNode in developing mode, the *Register* button won't be seen from the beginning. To add this button to the website, you have to change the REGISTRATION\_OPEN = False in the settings.py to REGISTRATION\_OPEN = True. Then reload GeoNode and you should also be able to see the *Register* button.

## Layers

Now that we've already created some users, we will take a closer look on the security of layers, how you can protect your data not to be viewed or edited by unwanted users. Hint

As already mentioned before it is important to know that a superuser does have unrestricted access to all your uploaded data. That means you cannot ban a superuser from viewing, downloading or editing a layer!

The permissions on a certain layer can already be set when uploading your files. When the upload form appears (*Layers -> Upload Layer*) you will see the permission section on the right side:



As it can be seen here, the access on your layer is split up into three groups:

- view and download data
- edit data
- manage and edit data

The difference between *manage and edit layer* and *edit layer* is that a user assigned to *edit layer* is not able to change the permissions on the layer whereas a user assigned to *manage and edit layer* can change the permissions. You can now choose whether you want your layer to be viewed and downloaded by

- anyone
- any registered user
- a certain user (or group)

We will now upload our **test layer** like shown HERE. If you want your layer only be viewed by certain users or a group, you have to choose *Only users who can edit* in the part *Who can view and download this data*. In the section *Who can edit this data* you write down the names of the users you want to have admission on this data. For this first layer we will choose the settings like shown in the following image:

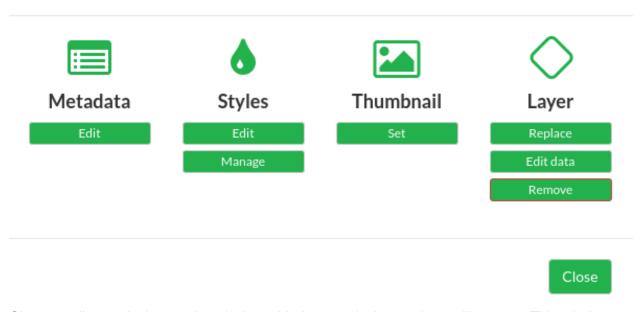
If you now log out, your layer can still be seen, but the unregistered users won't be able to edit your layer. Now sign in as *geonode\_user* and click on the **test layer**. Above the layer you can see this:

## Download Layer Edit Layer

## Download Metadata

The *geonode\_user* is able to edit the **test\_layer**. But before going deeper into this, we have to first take a look on another case. As an administrator you might also upload your layers to geoserver and then make them available on GeoNode using *updatelayers*. Or you even add the layers via the terminal using *importlayers* (LINK TUTORIAL). To set the permissions on this layer, click on the **test layer** (you've uploaded via *updatelayers*) and you will see the same menu as shown in the image above. Click *Edit layer* and the menu will appear.

Edit Layer ×



Choose *edit permissions* and a window with the permission settings will appear. This window can also be opened by scrolling down the website. On the right-hand side of the page you should be able to see a button like this.

Click on it and you will see the same window as before.

Now set the permissions of this layer using the following settings:

When you assign a user to be able to edit your data, this user is allowed to execute all of the following actions:

- edit metadata
- edit styles
- manage styles
- replace layer
- remove layer

So be aware that each user assigned to edit this layer can even remove it! In our case, only the user test\_user and your\_superuser do have the rights to do so. Geonode\_user is neither able to view nor to download or edit this layer.

Now you are logged in as the user *test\_user*. Below the **test\_layer** you can see the following: By clicking *Edit Layer* and *Edit Metadata* on top of the layer, you can change this information. The *test\_user* is able to change all the metadata of this layer. We now want to change to *point of contact*, therefore scroll down until you see this:



Change the *point of contact* from \_who\_ever\_created\_this to test\_user. Save your changes and you will now be able to see the following:

## Warning

If you allow a user to view and download a layer, this user will also be able to edit the styles, even if he is not assigned to edit the layer! Keep this in mind!

To learn how you can edit metadata or change the styles go to this section LINK.

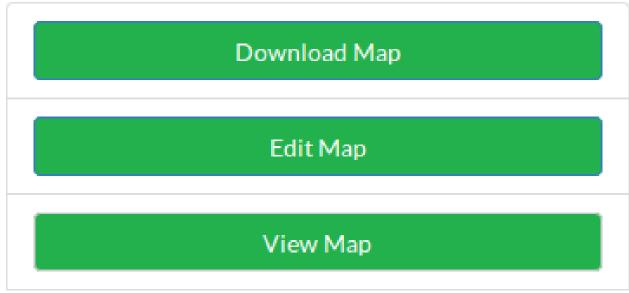
## **Maps**

The permission on maps are basically the same as on layers, just that there are fewer options on how to edit the map. Let's create a map (or already TUTORIAL?). Click on **test\_map** and scroll down till you see this:

# Permissions Specify which users can view or modify this map Change Permissions of this Map

Here you can set the same permissions as known from the layer permissions! Set the permissions of this map as seen here:

Save your changes and then log out and log in as *test\_user*. You should now be able to view the *test\_map* and click on to *Edit map*.



As you may recognize, this user is not able to change the permissions on this map. If you log in as the user *geonode\_user* you should be able to see the button *change map permissions* when you scroll down the page.

## **Documents**

All the same is also valid for your uploaded documents.