
Boundless Exchange Documentation

Release 1.2.0

Boundless

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Boundless Exchange is a web-based platform for your content, built for your enterprise. It facilitates the creation, sharing, and collaborative use of geospatial data. For power users, advanced editing capabilities for versioned workflows via the web browser are included. Boundless Exchange is powered by GeoNode, GeoGig, OpenLayers, PostGIS, GeoServer and pycsw. Boundless Exchange is designed as a platform for collaboration. You can now focus on your community – getting stakeholders quickly involved and empowering them with information. Exchange supports communal editing – allowing you to crowd-source information in an online, powerful, distributed/versioned architecture with an intuitive user interface.

Accounts, Users and Groups

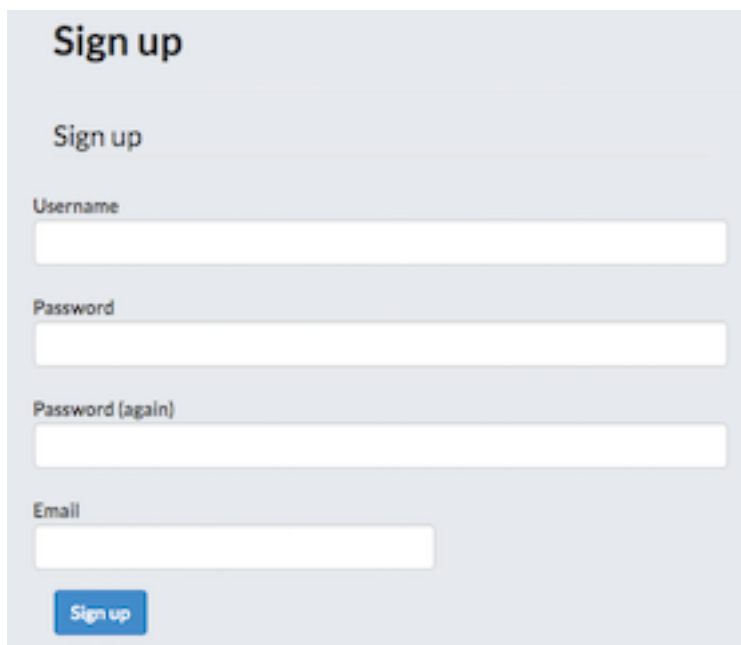
Exchange is a social platform, making the user account the primary component of any Exchange instance.

Creating a new account

Depending on how the Exchange instance was configured, you may have to register for an account. If the *Register* link is not displayed, then you will need to contact the Site Systems Administrator to have an account created.

If the *Register* link is displayed then register a new account by completing the following steps:

1. Select the *Register* link and fill out all fields in the following form.

A screenshot of a 'Sign up' form. The form has a light gray background. At the top, the text 'Sign up' is displayed in a large, bold, black font. Below this, the text 'Sign up' is repeated in a smaller, regular black font. The form contains four input fields: 'Username', 'Password', 'Password (again)', and 'Email'. Each field is a white rectangle with a thin gray border. Below the 'Email' field is a blue button with the text 'Sign up' in white.

2. Depending on how the Exchange site was configured you may have to confirm your email. If this is the case, follow the steps listed in the instructional email you will receive.

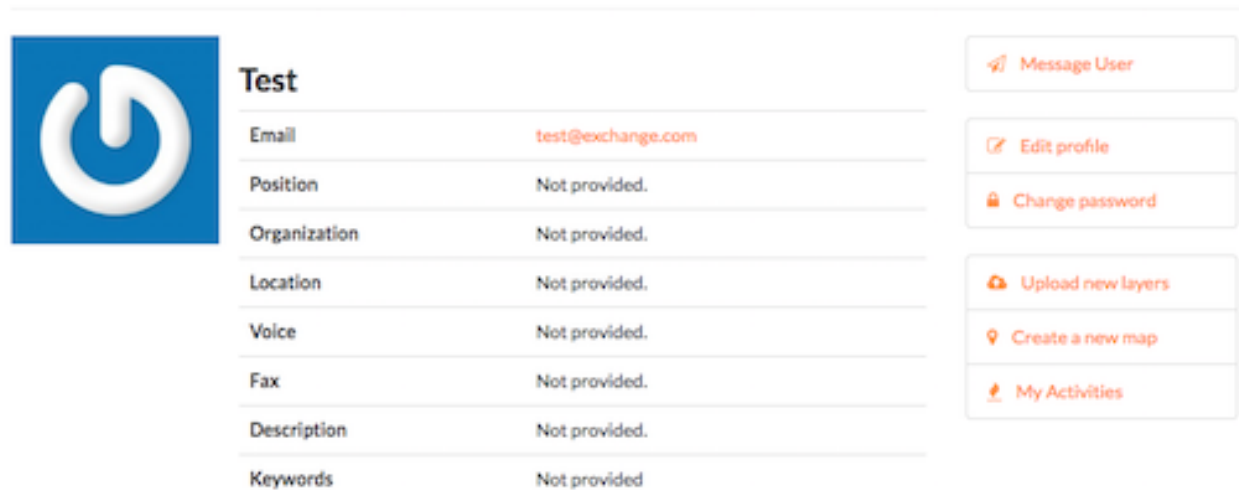
Managing your profile

Your profile in Exchange is where you can add your points of contact, interests, and other related content you may want to publish. This is how other users will find you, and view your work.

To adjust your profile settings complete the following steps:

1. Click on your user name in the top right of the screen. Select *Profile* from the drop-down menu to enter the Profile Settings page. This will display your current profile settings.

Test User (test)



Test	
Email	test@exchange.com
Position	Not provided.
Organization	Not provided.
Location	Not provided.
Voice	Not provided.
Fax	Not provided.
Description	Not provided.
Keywords	Not provided

- Message User
- Edit profile
- Change password
- Upload new layers
- Create a new map
- My Activities

2. To modify your profile, select the *Edit Profile* link.
3. On this page, you can update your information, including your avatar. It is important to include (at a minimum) your **First name**, **Last name** and **Email address**. This is required to properly display history of GeoGig versioned layers.
4. When finished, select the *Update Profile* button.

Viewing other user accounts

Once your account is created in Exchange, you will be able to view other user accounts on the system. This will let you see who else may be interested in the projects you are working on, or help you find additional data through collaboration.

1. Select the *About* link on the Exchange toolbar, and click **People** in the drop-down menu. You will see a list of thumbnails for all users registered on this system. Avatar images will display if the user has provided one.
2. Click on an individual username to see their contact information, and any resources owned by the user. Any layers, maps or documents they have added to Exchange will be listed under Resources.
3. You can also click on the *User Activities* link to see the chronological list of that user's activities.

Edit Your Profile



Change your avatar

First name

Test !!REQUIRED FOR GEOGIG!!

Last name

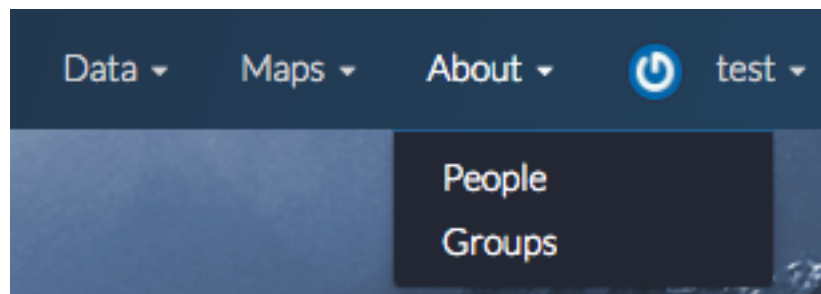
User !!REQUIRED FOR GEOGIG!!

Email address

test@exchange.com !!REQUIRED FOR GEOGIG!!


Organization Name

name of the responsible organization






Explore People

▼ SEARCH




Search by name 


Total: 7







Ami
No
Organization
info

 0  0  0







Test User

 0  0  0







cindi Adams
Boundless

 0  0  0







dhemphill

 1  0  0







Ryan Babler
No
Organization
info

 0  0  0






Administra...

 1  0  0



Stacey Berry
No
Organization
info

 16  3  6

<

page 1 of 1

>

Resources

[All contents](#)[Layers](#)[Maps](#)[Documents](#)

gis_osm_barriers_v06

No abstract provided

test 28 Dec 2016 0 0 0
 Create a Map





gis_osm_adminareas_v06

No abstract provided



test 28 Dec 2016 0 0 0
 Create a Map

< page 1 of 1 >


Activity Feed for test



test uploaded **gis_osm_barriers_v06**
6 minutes ago



test uploaded **gis_osm_adminareas_v06**
6 minutes ago



test deleted DHH_facilites0
7 minutes ago


Managing groups

Registered Exchange users can create and be added to groups. Groups are a great way to organize and manage your team. You can see what action has been taken by the group and its members through the activity feed.

View an existing group


1. Select the *About* link on the Exchange toolbar, and click **Groups** in the drop-down menu. A list of all existing groups within Exchange will display.
2. Click on the name of a group to see the contact information, a list of members, and any additional details provided by the group managers.


Test organization



This group is for anyone interested in test materials.
✉ test@boundlessgeo.com

[Edit Group Details](#)
[Manage Group Members](#)
[Delete this Group](#)
[Group Activities](#)
Permissions
 This group is **Public**. Anyone may join this group.
Managers

 **sberry**
 No Group

 **test**
 No Group

Members

 **Test User**
 ◊ 0 ♀ 0 📄 0

 **Stacey Berry**
 No Organization info
 ◊ 17 ♀ 3 📄 6

 **cindi Adams**
 Boundless
 ◊ 0 ♀ 0 📄 0

Create a group

1. Select the *About* link on the Exchange toolbar, and click **Groups** in the drop-down menu. A list of all existing groups within Exchange will display.

2. Click the *Create a New Group* button, and fill out as much information about your group as possible. Once you have added the group name, contact information, and a brief description of the group, click the *Create* button at the bottom of the page.
3. You will be returned to your group's information page. To add other group members, select the *Manage Group Members* link. Type the name of a registered Exchange user in the **User identifiers** textbox, and select their role as either a Member or Manager.

You can add more than one new member at a time, as long as they are going to have the same role.

4. Click the *Add Group Members* button when you have finished.

You can view all of the managers or members of the group by clicking on their respective tabs.

Note: Groups can only be deleted from Exchange by an administrator. If you have a group you no longer need, please contact your Exchange administrator.

Discovering available content

There are many different ways to find, filter and display data throughout Exchange. Whether you know exactly what you're looking for, or have just a general idea, Exchange helps you find exactly what you need.

Exchange Search - Using just one search, you can find all of the maps, layers or documents that are available to Exchange, as well as services added by other users.

Exchange supports the registration of remote geospatial content using pycsw. This allows a user to organize spatial data in catalogs, but search on all of them at the same time. Once a remote layer is registered, you are able to retrieve metadata and a thumbnail by hitting different endpoints.

What does this mean for you? You can search for records which are stored outside of Exchange. This unified search makes finding data in Exchange faster and easier than ever.

From the Boundless Exchange homepage, simply enter your search term in the Search for Content field. When you type in the search field, Exchange will list the layers, maps, and documents matching the text you've entered. Select a resource in the list to open its information page, or press Enter to open the list of results that are relevant to your search terms.

For example, if you type "te" in the search box, and press Enter, you will get a list of all of the results that begin with the letter combination "te" in the title or abstract.

Note: You can use multiple search terms, separated by 'and' or 'or', but this is a simple search, and does not require wildcards or Boolean operators.

Discover the Available Content - In Exchange, your data is separated into multiple categories based on the content of the information. Your Exchange administrator can configure your datasets and metadata based on your settings and requirements. When searching for data, selecting on one of these available datasets will help you find information faster by returning only those results meeting the category criteria.

This is an example of what the content datasets could be for your Boundless Exchange instance. The specific datasets will depend on your settings and requirements. Hover over the individual categories to see what type of data is in each one.

Featured Content - Featured datasets are available on the Boundless Exchange homepage, and allow users to immediately see maps, layers or documents which have been highlighted as important. A dataset can be featured by editing its metadata, and ensuring the Featured checkbox is selected.

Create a Group

Title

Logo

 No file chosen

Description

This group is for anyone interested in test materials.

Email

Email used to contact one or all group members, such as a mailing list, shared email, or exchange group.

Access

Public: Any registered user can view and join a public group.

Public (invite-only): Any registered user can view the group. Only invited users can join.

Private: Registered users cannot see any details about the group, including membership. Only invited users can join.

Edit Members for Test organization

Members

All

Managers


Members

 **test**  Manager Remove

Role: manager

 **sberry**  Manager Remove

Role: manager

 **cadams**  Remove

Role: member

Add members

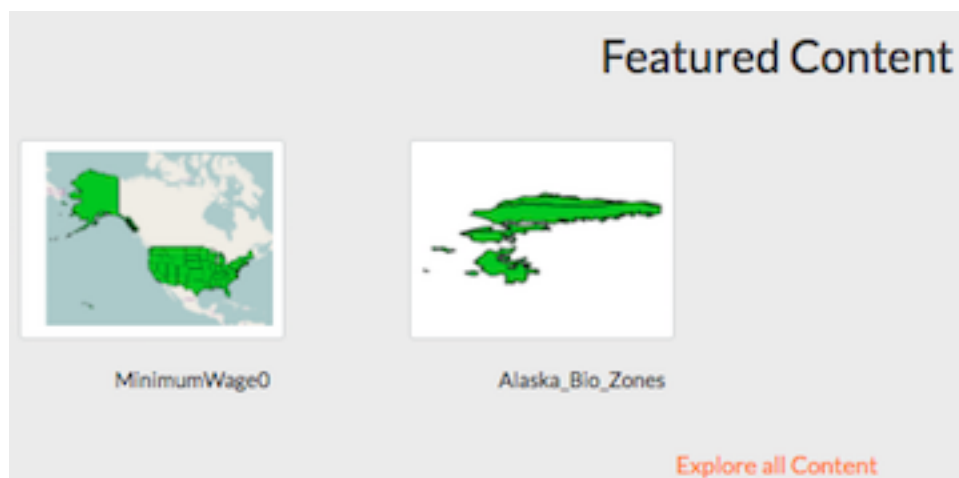
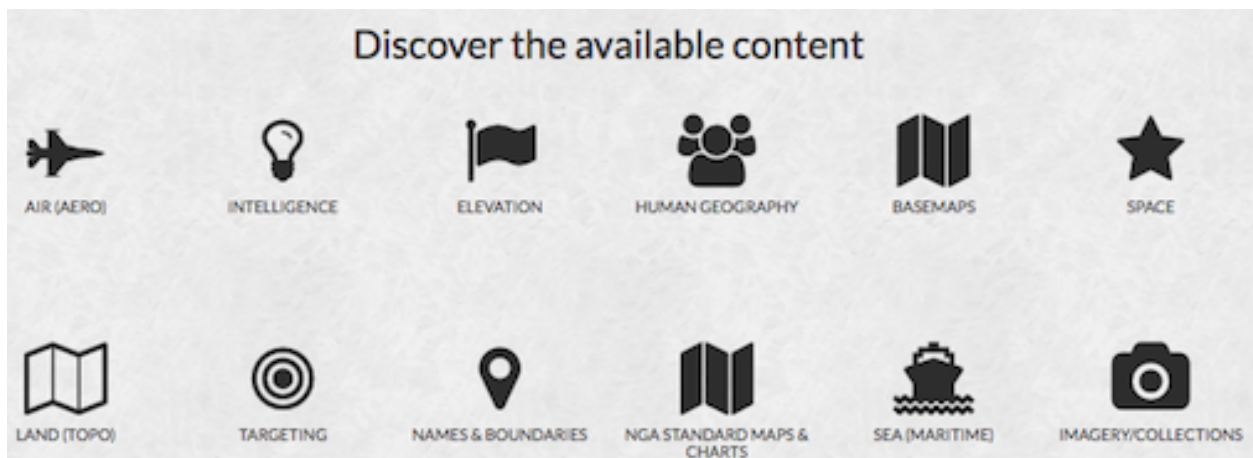
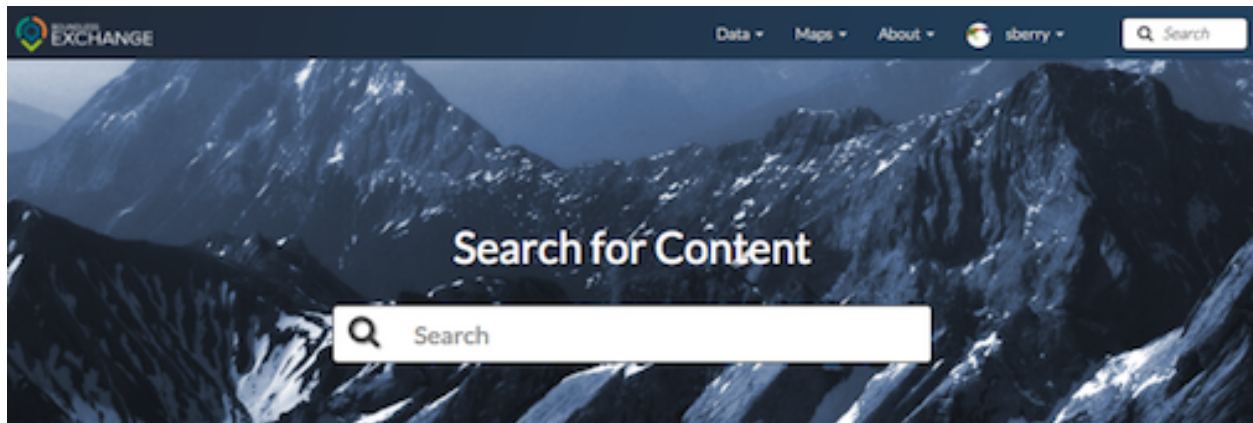
Role

Member

User identifiers

Choose users...

Add Group Members

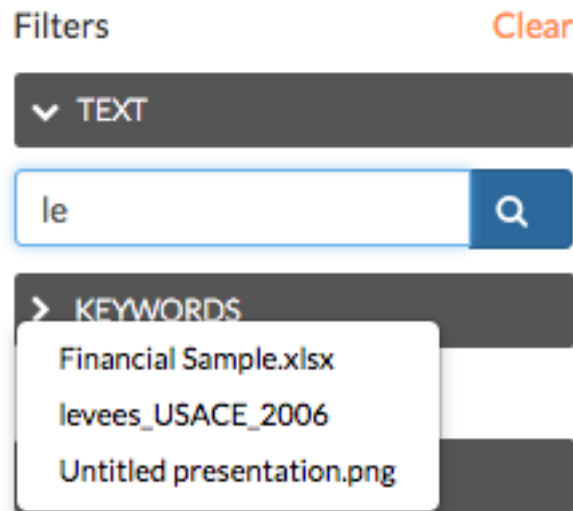


Browsing Layers - To open the Layers page, click on the Data link on the Boundless Exchange toolbar, and select Layers in the drop-down menu. Here you can browse data that has been uploaded into Exchange. From the layers page, you can see how many times a layer has been viewed, and its average user rating. Selecting on the layer's title will take you to the information page where you can download the layer, edit metadata, or view additional information about the layer.

Browsing Maps - To open the Maps page, click on the Maps link on the Boundless Exchange toolbar, and select Explore Maps. Like the Layers page, the Maps page lets you browse the available maps that have been uploaded into Exchange. The map's rating and the number of times it has been viewed are available on this page. Similar to a layer, selecting on the title of a map will take you to its information page.

Filtering - Layers, maps and documents can be filtered to help you better manage the data available in Exchange. Listed below are several options to refine your search results.

- **Filter by Text** - Filters results using basic search terms. Type your search terms in the text box, and select your results from the displayed list. Multiple terms can be used, separated by 'and' or 'or'.



- **Filter by Keywords** - If a user has associated keywords to the layer in the metadata, you can filter layers by those terms. Select on a keyword to limit results to those layers with associated keywords.
- **Filter by Type (layers and documents)** - You can filter layers by raster, vector, remote and WMS. Documents can be sorted by text, image or presentation. The selected filter will display in blue.
- **Filter by Category** - When the metadata for a layer or a map has been tagged with a specific category, it will be reflected in the Categories panel. Your layers can be added to the categories created in your settings:

This is an example of what the categories will look like. They will correspond with the available datasets from the homepage, but may differ among Exchange instances.

When filtering, click on a category to limit the results list to those layers tagged with that category title. Selecting another available category expands your results to include those layers in the results list. Click on the category a second time to remove it from the layer results list.

- **Filter by Owners** - You can select data based on the owner of the product. This may be useful if you are trying to quickly find products created by individuals on a joint project.
- **Filter by Date** - This will limit the list of products by a date range. In the Date panel, select the start date and the end date for the date range. The list will update to reflect those layers, documents or

> KEYWORDS

administrative division and
international codes

capitals

cities

country names

france

▼ TYPE

Vector 10

Document 6




















▼ DOCUMENT TYPE






Text 3

Image 2

Presentation 1

Category

- ☐  Imagery Base Maps Earth Cover
- ☐  Economy
- ☐  Environment
- ☐  Biota
- ☐  Elevation
- ☒  Planning Cadastre
- ☐  Boundaries
- ☐  Transportation
- ☐  Location
- ☐  Farming
- ☐  Society
- ☐  Utilities Communication
- ☐  Oceans
- ☐  Health
- ☐  Geoscientific Information
- ☐  Inland Waters
- ☐  Structure
- ☐  Intelligence Military
- ☐  Climatology Meteorology Atmosphere

▼ CATEGORIES		
	Economy	1
	Environment	1
	Health	1
	Imagery Base Maps	
	Earth C...	1
	Society	2

OWNERS	
cadams	1
dhemphill	1
admin	4
sberry	23

maps created within that timeframe.

DATE

Date begins after:

Date ends before:

- **Filter by Regions** - Type a geographical region in the textbox to find data only associated to that region.

REGIONS

- North Africa
- North America
- Northern Mariana Islands

- **Filter by Extent** - Zoom in and out to find products pertaining only to the extent displayed on the map.

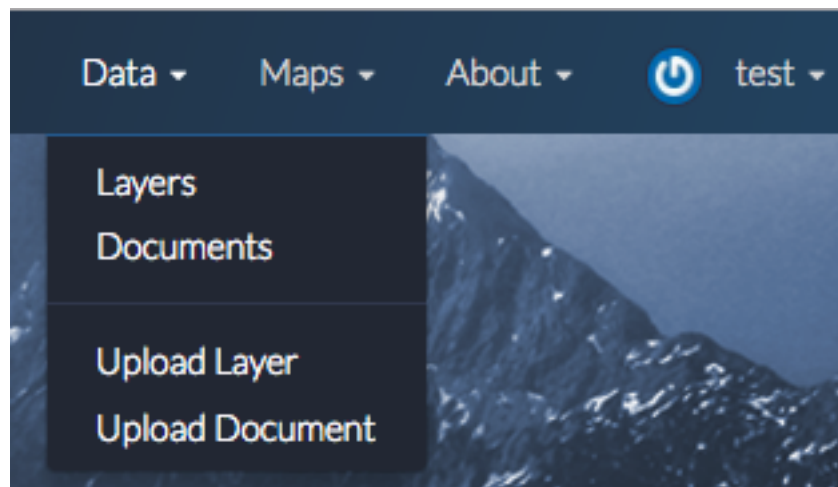
Working with Documents

Uploading documents into Exchange allows you to share them with other users. Documents can be actual files, or they can be links to documents on other websites. You can also associate a document to a layer or a map, which will display in the information page.



Uploading documents

1. Select the *Data* link on the Exchange toolbar, and click **Upload Document** in the drop-down menu.



The following file types can be uploaded: **.doc, .docx, .gif, .jpg, .jpeg, .ods, .odt, .pdf, .png, .ppt, .pptx, .rar, .sid, .tif, .tiff, .txt, .xls, .xlsx, .xml, .zip, .gz, .qml**

Important: Your Site Administrators may limit specific file types.

2. Add a title to the document as you would like it to appear in Exchange. It could be the same as the file name,

but it doesn't have to be.

3. Select the *Choose File* button, and browse to the file to be uploaded.

OR: Enter the URL for an existing document.

File:



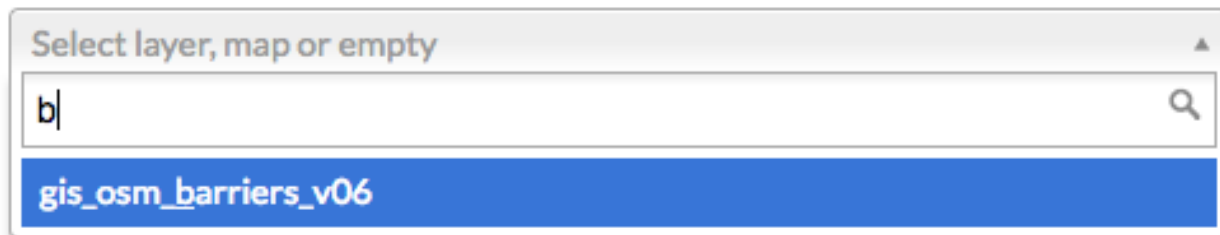
URL:



The URL of the document if it is external.

4. To link your document to an existing map or layer, type the name of the map or layer in the **Link to** section, and select it from the list.

Link to:



The social design of Exchange allows users to coordinate on projects by sharing access to the same data; however, there may be instances when you want to limit who has access to your documents. In Exchange, you can establish permissions for who can view, edit, and manage documents. Permissions can also be set for editing metadata.

5. On the right side of the page, under the **Who can view** and **Who can download** sections, add the name(s) of registered users or groups. This will ensure anonymous view access is disabled, and only those registered users specified are able to see your documents.

Select the checkbox next to **Anyone** to leave viewing or downloading available to all users.

6. In the same area, under **Who can download it?**, add the users or groups who have permission to download the document.
7. Set permissions accordingly for who is able to change metadata and manage the document.

8. Click the *Upload* button.

Enter the document's metadata on the next page. It's recommended that you add an abstract at a minimum. Metadata helps other users know more about what you are uploading, and why.

9. Fill out as much of the metadata as you can, or as needed, to include selecting a category.

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

10. **Optional:** To create a custom thumbnail for a document, the image URL is needed. Copy and paste the link into the Thumbnail URL box. Custom thumbnails can also be created in this manner for maps and layers.

Thumbnail url

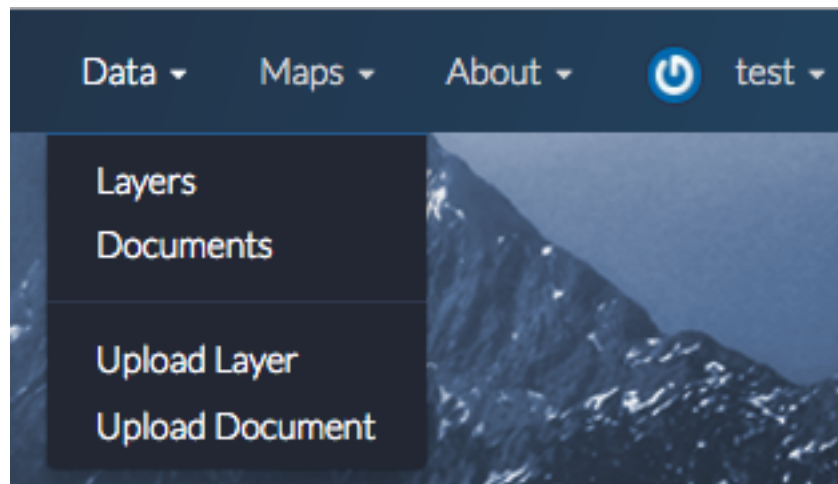
https://en.wikipedia.org/wiki/Map#/media/File:World_Map_1689.JPG

11. When you have finished entering metadata, click the *Update* button at the bottom of the page. The document will now be listed as an available result under the Explore Documents page.

Browsing documents

Finding documents that other Exchange users have added is quick and easy. As long as you have the proper permissions, you are able to view, download and edit any document you see in Exchange.

1. Select the *Data* link on the Exchange toolbar, and click Documents in the drop-down menu.



As you learned in the **Discovering Content** section, you can filter the document results to find the type of documents you need.

2. Click on the title of the document you want to view. This will open the document's information page.

From here, you can view or download the metadata, edit, change permissions or download the document. You will also be able to view or add ratings and comments to the document.

3. Click the **Ratings** tab, and select a star rating for the document. The more stars, the better the rating.
4. Select the **Comments** tab to provide any feedback regarding the document. Click the *Add Comment* button, and type your comments in the text box. Click the *Submit Comment* button when you are finished.

Eritrea (1).docx

Download the Eritrea (1).docx document

 Info

 Ratings

 Comments

Title	Eritrea (1).docx
Abstract	No abstract provided
Publication Date	Jan. 9, 2017, 1:51 p.m.
Category	Society 
Owner	sberry

More info -

Metadata Detail

Download Document

Edit Document

Download Metadata

Resource 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



Info
★ Ratings
Comments

Title	DHH_editing_procedures.txt
Abstract	No abstract provided
Publication Date	Jan. 9, 2017, 1:51 p.m.
Category	Health
Owner	sberry

More info -

Rate this document



Average Rating



DHH_editing_procedures.txt

Download the DHH_editing_procedures.txt document

Info
★ Ratings
Comments

Title	DHH_editing_procedures.txt
Abstract	No abstract provided
Publication Date	Jan. 9, 2017, 1:51 p.m.
Category	Health
Owner	sberry

More info -

Comments (0 total)

Add Comment

Working with Layers

Exchange allows you to upload layers for better visualization of your data, and to create a more detailed map.

Exchange supports the following Vector formats:

- ESRI Shapefile
- CSV (Comma Separated Value)
- Google Earth KML
- GeoJSON

The following are the supported Raster formats:

- GeoTIFF
- ERDAS Imagine
- JPEG2000
- NITF (National Imagery Transmission Format)
- CIB (Controlled Image Base)
 - 1 Meter
 - 5 Meter
 - 10 Meter
- CADRG (Compressed Arc Digitized Raster Graphic)
 - GNC (Global Navigation Chart)
 - JNC (Jet Navigation Chart)
 - ONC (Operational Navigation Chart)
 - TPC (Tactical Pilotage Chart)
 - JOG (Joint Operations Graphic)
 - TLM100 (Topographic Line Map 100K)
 - TLM50 (Topographic Line Map 50K)

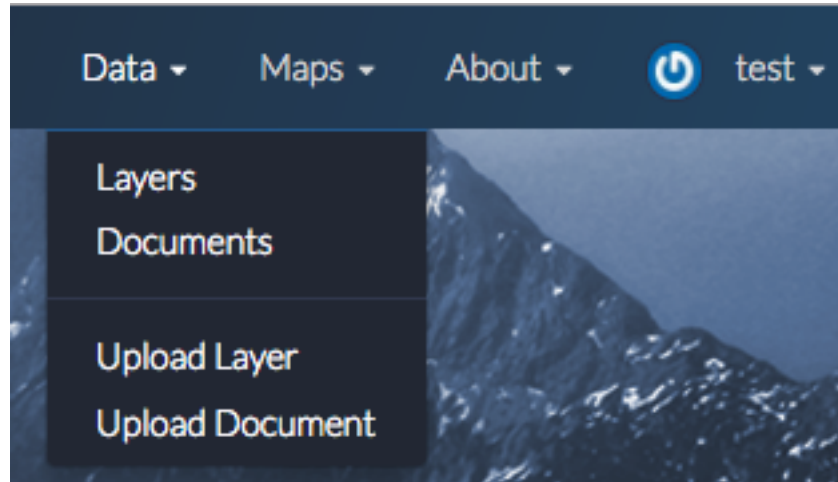
All file types listed can be uploaded as a Zip Archive (.zip).

Once the layers are uploaded, they will be available to other users in Exchange.

Upload a layer

1. Click the *Data* link on the Exchange toolbar, and select **Upload Layers** in the drop-down menu to open the Upload Layers page.
2. Click the **guilable:‘Choose Files‘** button. This will open a local file dialog. Navigate to your data folder and select the file(s) for the geospatial layer..

Note: Some file types require multiple files to create a complete layer. If you are uploading an ESRI Shapefile, be sure to include the .dbf, .prj, .shp, and .shx files.



Add Data

choose file(s)

Valid file extensions: shp, shx, prj, dbf, kml, geojson, json, tif, tiff, gpkg, csv, zip, xml, sld, ntf, nitf

- Click on your file under **Manage Your Data**. Verify the file information is correct, and select **Create Layer**.

Manage Your Data

Showing uploads 1-3 of 3.

gis_osm_natural_a_v06.shp
May 18 2017 13:01:112.3KB

gis_osm_natural_a_v06_0ecd8db2
(in gis_osm_natural_a_v06.shp)

File Type	ESRI Shapefile
Features	2
Status	UNKNOWN
osm_id	Integer
lastchange	IntegerList
code	Real
fclass	RealList
geomtype	String
name	StringList
elevation	(unknown)

Create Layer →

Download
Delete

gis_osm_coastline_v06.shp
May 18 2017 12:48:13504.0bytes

DHH_facilities0.shp, USA_adm2.shp, airports_idotd_2007.shp, cemetery0.shp
May 8 2017 15:10:0570.0MB

Previous
1
Next

- Verify the name of your layer is correct, and click the *Continue* button. A unique identifier will be added to the end of your layer.

Configure time attributes

A feature can currently support one or two time attributes. If a single attribute is used, the feature is considered relevant at that single point in time (start date). If two attributes are used, the second attribute represents the end of a valid time period for the feature.

Name your layer.

gis_osm_natural_a_v06_0

Continue ➞

Close

A time attribute can be:

- A date - 02/15/2016 11:23 AM
- Text that can be converted to a timestamp - Wednesday December 7, 2016 9:47 AM
- A number representing a year - 2016, 1978

You will select the attribute you want to use from the drop down list. Exchange can handle the following formats:

The most common formatting flags are:

- y - year
- M - month
- d - day of month
- h - hour of the day (0 - 23)
- k - hour of the day (1-24)
- m - minute in an hour
- s - seconds in a minute

Exchange will also handle date and optional time variants of ISO-8601. In terms of the formatting flags noted above, these are:

yyyy-MM-dd'T'HH:mm:ss.SSS'Z'

yyyy-MM-dd'T'HH:mm:sss'Z'

yyyy-MM-dd'T'HH:mm:ss'Z'

yyyy-MM-dd'T'HH:mm'Z'

yyyy-MM-dd'T'HH'Z'

yyyy-MM-dd

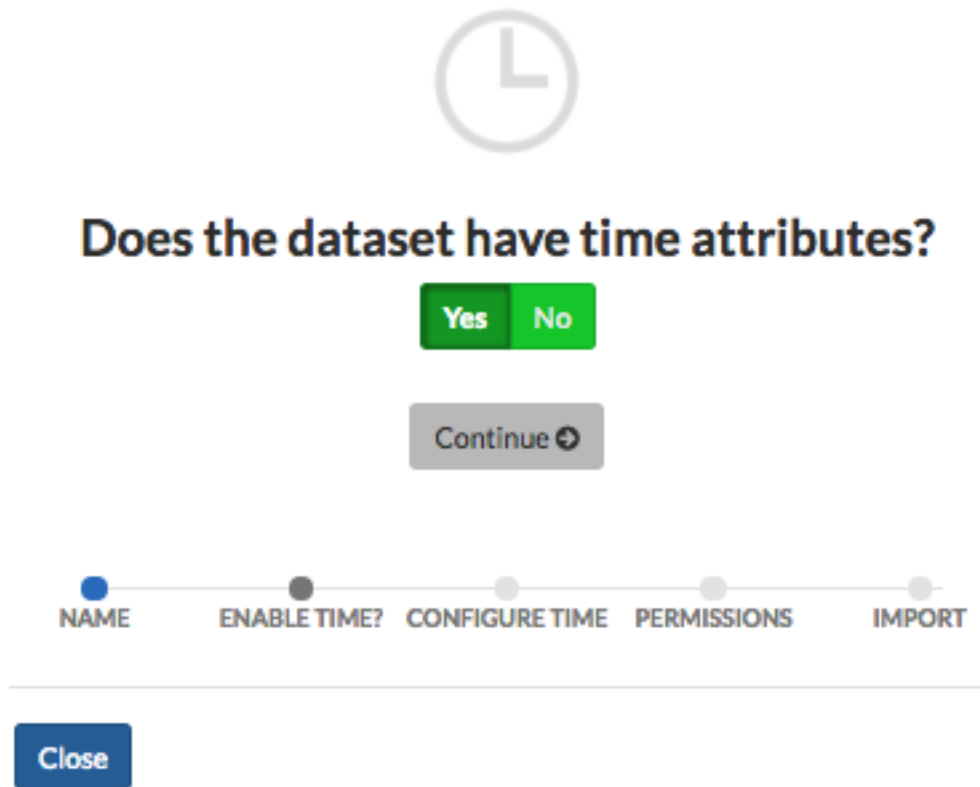
yyyy-MM

yyyy

Note: Single quotes represent a literal character.

To remove ambiguity, repeat a code to represent the maximum number of digits. For example, yyyy or MM instead of yy or M.

5. Select a time attribute option for your layer.



Yes - If your layer has an attribute for time configuration, and you'd like to enable the playback feature, select Yes. Configure the time attribute by selecting which data field is the Start Date. Selecting an end date is optional.

No - Select No if your data does not include temporal information.

Click the Continue button.

Enable version history

6. Select whether or not you'd like to enable version history.

Exchange uses GeoGig repositories to maintain version control of your vector data. By enabling version history, you can see the history of changes and who made them. Please reference the **Editing and Version Management** section for further information. Establishing permissions for your layers allows you to see edits made to the information through version history. Please see the below section on **Setting Permissions** for more information.

Note: Attempting to enable version history for a raster file will cause an error, notifying you to verify your configuration before you can proceed with the import.

Select Yes or No, followed by the Continue button.

Configure your time attributes:

Date field (start date):

--Please select a field--

Optional end date field:

--Please select a field--

Continue →

NAME ENABLE TIME? CONFIGURE TIME PERMISSIONS IMPORT

Close



Enable version history?

Yes

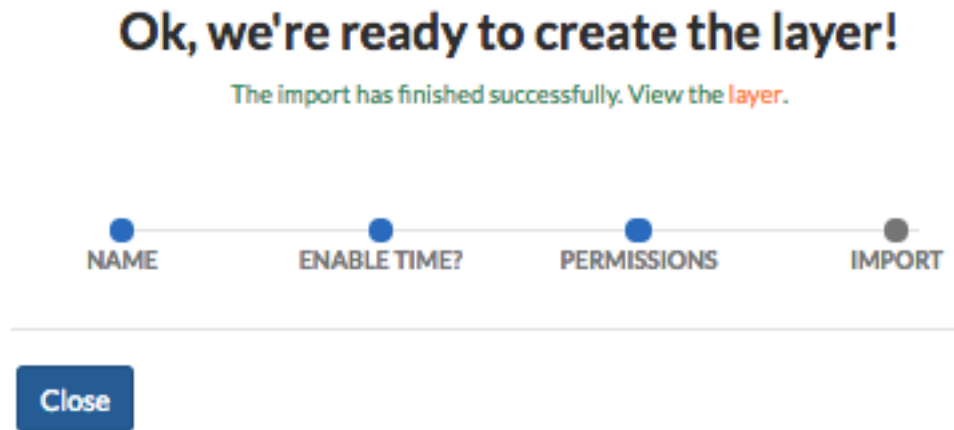
No

Continue →

NAME ENABLE TIME? PERMISSIONS IMPORT

Close

7. Click the *Create my layer* button to begin the import. You will be notified that the importer has successfully finished. Select the hyperlink to view your layer, or click the *Close* button to continue importing data.

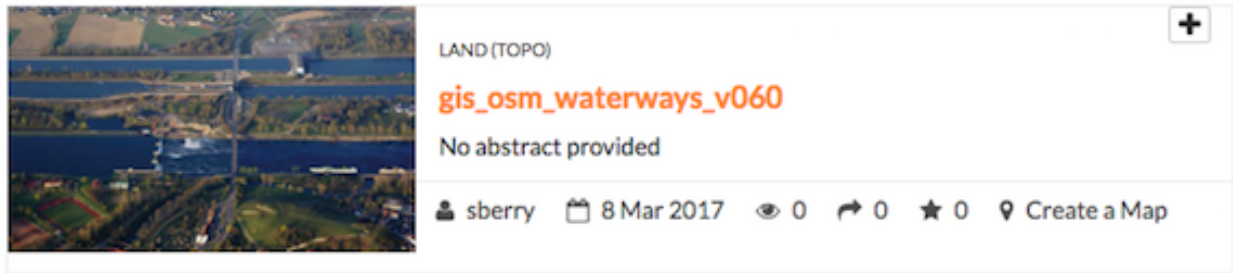


Selecting **View the layer** will take you to the layer's information page, where you can create permissions for viewing and editing your data.

Layer information

Each layer has an information page associated to it, which has several options for managing the layer's data. Information is available for the following:

- Info – Displays general information about the layer
 - Attributes - Lists the features in a layer, and the nonspatial information about the feature
 - Ratings – Based on the ratings of other users
 - Comments – Any comments on the layer from users
 - Legend – Maps using this layer – What other maps within Exchange are using the layer
 - Permissions – How others can see or modify this layer
 - Styles – What styles are associated to the layer
 - About – Provides information on the owner, Point of Contact and Metadata Author
1. To access Layer Information, click the *Data* link on the Exchange toolbar, and select **Layers** from the drop-down menu. This will open the Explore Layers page. Here you will see a list of all of the available layers. Each layer has a thumbnail image, as well as the title, author, and any associated keywords.
 2. Click the title of the layer you want to access.
 3. The information page for the layer will open.



Using the map features

Within the Map Information page, there are some map features that will help you view the layer more in depth.

Zoom - Select the Zoom In or Zoom Out button to zoom to a specific location. Depending on the basemap, you may be able to zoom in as close as 1:10 meters.

Zoom to the Initial Extent - Return to the original extent of the map.

Switch to Globe (3D) - Select this button to view this map as 3D.

Print Map - Select Print Map to print a copy of the layer.

Layers - Select the Layers button to turn any of your layers off or on.

Click the *Basemap* button to select a different basemap style.

Layer detail tabs

There are five tabs with information pertaining to the particular layer: Info, Attributes, Ratings, Comments, and GeoGig.

The Info tab is the default display, and contains basic information about the layer, such as the title, who created it, and when it was published.

The Attributes tab displays the layer attribute table. Layer attribute statistics will only display if the value is a numeric attribute, otherwise, no statistics will be calculated.

The Ratings tab displays all ratings given to a layer by other users. Click on a star to rate the layer (one to five stars). Click the **Cancel this rating** icon to delete your rating.

The Comments tab allows you to see what others are saying about this layer, as well as leave your own comment. Click the *Add Comment* button to leave a comment about the layer. When you've finished, click the *Submit Comment* button.

gis_osm_waterways_v060



Info Attributes Ratings Comments

Title gis_osm_waterways_v060

Abstract No abstract provided

Publication Date March 8, 2017, 10:32 p.m.

Type Vector Data

Keywords france, toulouse

Category Names & Boundaries

Owner sberry

More info

Download Layer

https://dev.exchan

Copy WMS URL

Metadata Detail

Edit Layer

Download Metadata

Legend

cyan line

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 cyan line style

Permissions

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

Change Layer Permissions

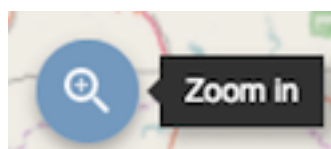
About

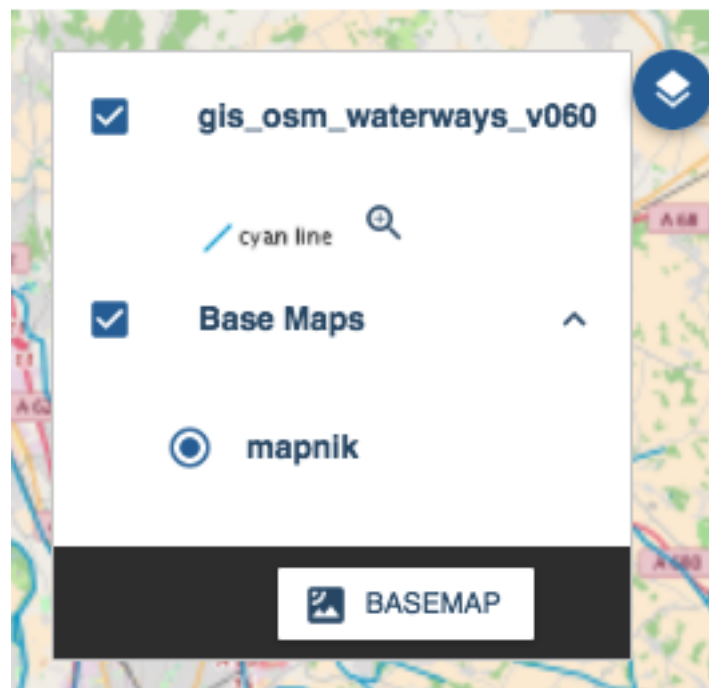
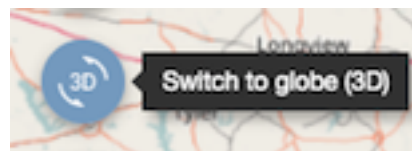
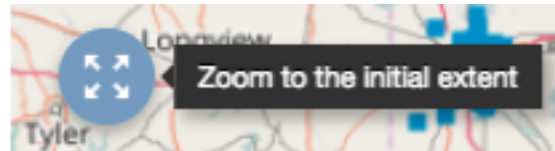
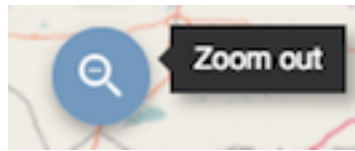
Owner, Point of Contact, Metadata

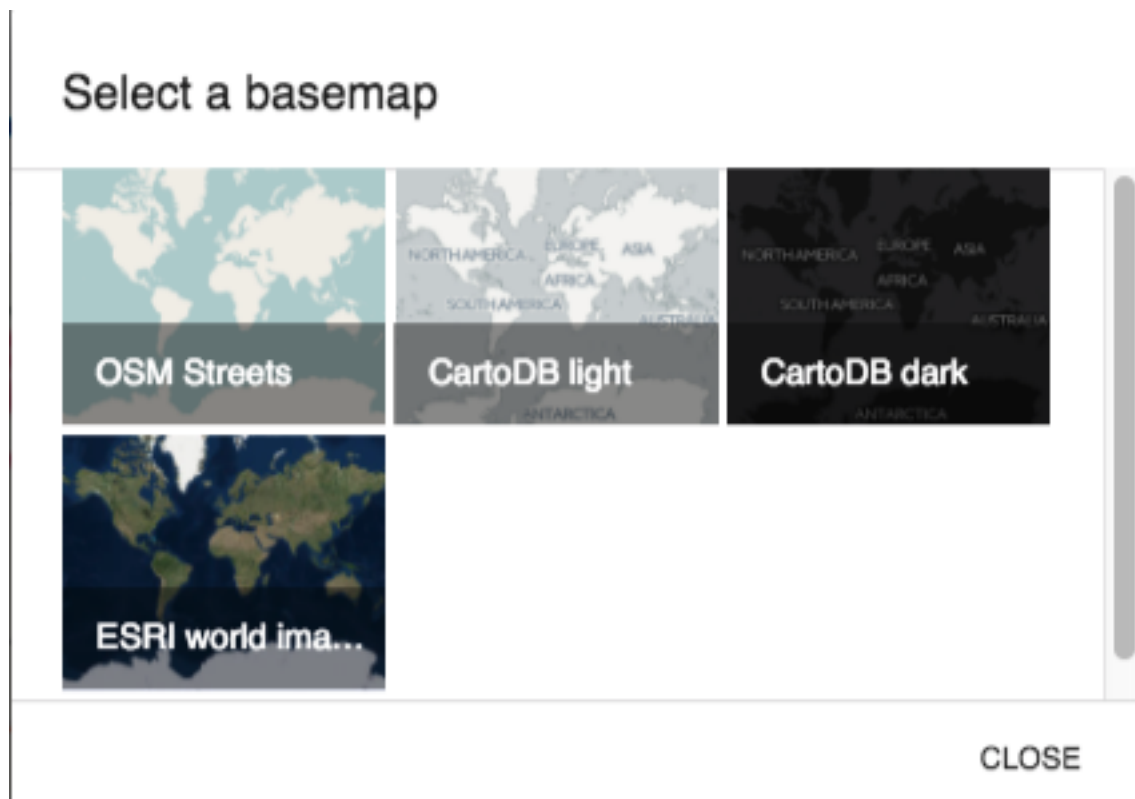
Author

sberry

No Group







i Info **≡** Attributes **★** Ratings **💬** Comments **📍** GeoGig

Title	gis_osm_barriers_v06
Abstract	No abstract provided
Publication Date	Dec. 28, 2016, 10:17 a.m.
Type	Vector Data
Owner	test
More info	-

Info

Attributes

Ratings

Comments

GeoGig

Attribute Name	Label	Description	Range	Average	Median	Standard Deviation
osm_id			NA			
lastchange			NA			
code			NA			
fclass			NA			

Info


Attributes

Ratings


Comments

GeoGig

Rate this layer



Average Rating



(0)

Info


Attributes

Ratings

Comments

GeoGig

Comments (1 total)




This layer has been edited several times.
By **test** on Jan 4, 2017

Delete

Add Comment

The GeoGig tab shows you the history of edits that have been made to the layer, when they were made, and by whom.


[Info](#) [Attributes](#) [Ratings](#) [Comments](#) [GeoGig](#)


Clone URL:
 `https://dev.exchange.boundlessps.com/geoserver/geogig/repos/test_repo`

About this GeoGig Layer:

TOTAL COMMITS	TOTAL CONTRIBUTORS
2	2

Recent Commit History:

added 2388 features via unversioned legacy client. added  3a1ef7a9b1
gis_osm_barriers_v06/503ad6592363 added gis_osm_barriers_v06/503ad6592364 added
gis_osm_barriers_v06/503ad6592367 added gis_osm_barriers_v06/503ad6592360 added
gis_osm_barriers_v06/503ad6592361 added gis_osm_barriers_v06/503ad6592362 added
gis_osm_barriers_v06/503ad6592365 added gis_osm_barriers_v06/503ad6592366 added
gis_osm_barriers_v06/503ad6592368 added gis_osm_barriers_v06/503ad6592369 And
2378 more changes.
Authored Tuesday at 12:14 PM by: Unknown

Created feature type tree gis_osm_barriers_v06  80b23ef8a4
Authored Tuesday at 12:14 PM by: test

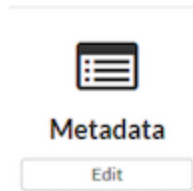
Editing metadata and managing layers

Each layer's information page allows you to view the information that makes up the layer. Exchange allows you to edit metadata pertaining to a layer that you have uploaded, as well as any layers you are given permissions to access by other users.

Edit metadata

Metadata is information about the layer, such as the owner, title, purpose or restrictions on a layer. You can include as much information about the layer as you feel is important; the more you can tell other users about your layer, the better. If you have questions about what to put in a field, hover your mouse over the area. An information balloon will explain what is required.

1. Click the *Edit Layer* button, and select the *Edit* button under Metadata. The Edit Metadata page will display.
2. Edit the information fields to include anything pertinent to the layer. **Note:** Once you begin to edit the metadata, the Category field becomes mandatory, and you must select at least one.
3. Click the *Update* button at either the top or bottom of the page to save your changes.



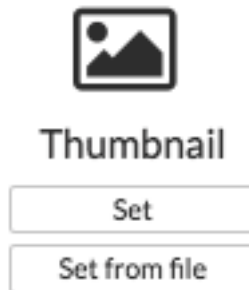
Create a custom thumbnail

Custom images related to your map can be created, and will display next to the map on the Explore Maps page.

1. From the layer's info page, click the *Edit Layer* button.



2. Click the *Set from file* button to browse to the image.



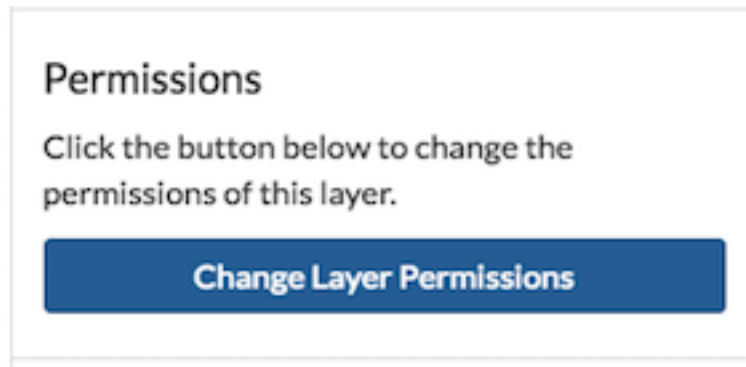
3. Browse to the image you'd like to use. Once added, the new image will display.

Set permissions

The social design of Exchange allows users to coordinate on projects by sharing access to the same layers and maps; however, there may be instances when you want to limit who has what access to your layers. In Exchange, you can establish permissions for who can view, edit, and manage layers. Permissions can also be set for editing styles and metadata.

By default, when a layer is uploaded, the permissions are set so that only the person who uploaded the layer has access to it. If you want other people to view, download, or edit the layer, you must change the permissions to allow it. Without changing permissions, other registered users will not see it listed as an available layer.

1. Click the *Change Layer Permissions* button.
2. Under the Who can view and Who can download sections, add the name(s) of registered users or groups. This will ensure anonymous view access is disabled, and only those users specified are able to see your layers. You can also leave the checkbox checked to allow all users access to the layer.



3. You can make the same changes for who can edit, change metadata, styles and who can manage the data. Add the names of users or groups who have permission to edit the layer. Click the *Apply Changes* button when you are finished.

Manage styles

Layers can have multiple associated styles. The Styles section tells you which style(s) is currently associated to the layer.

1. Click the *Edit Layer* button, and then **Manage** under Styles
2. Click the name of a style in the left-hand list to select it, and move it to the right-hand list.
3. Click a style in the right-hand list, and click the arrows between the lists to remove a style.
4. Click the *Update available Styles* button to save changes.

Replace a layer

Replacing a layer allows you to upload a new layer, taking the place of the current layer.

1. Click the *Edit Layer* button, and select the *Replace* button.
2. Follow the instructions to upload a new layer.

Remove a layer

Removing a layer will delete it completely from Boundless Exchange.

1. Click the *Edit Layer* button, and select Remove.
2. Verify your selection by clicking the *Yes, I am sure* button.

Who can view it?
<input checked="" type="checkbox"/> Anyone
The following users:
<input type="text" value="sberry"/>
The following groups:
<input type="text"/>

Who can download it?
<input checked="" type="checkbox"/> Anyone
The following users:
<input type="text" value="sberry"/>
The following groups:
<input type="text"/>

Who can change metadata for it?
The following users:
<input type="text" value="sberry"/>
The following groups:
<input type="text"/>

Who can edit data for this layer?
The following users:
<input type="text" value="sberry"/>
The following groups:
<input type="text"/>

Who can edit styles for this layer?

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

Styles

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

☒ A dark yellow line style



Styles

Manage

Manage Styles

Manage Available Styles for **geonode:gis_osm_barriers_v06**

Layer Default Style

A dark yellow line style ▾

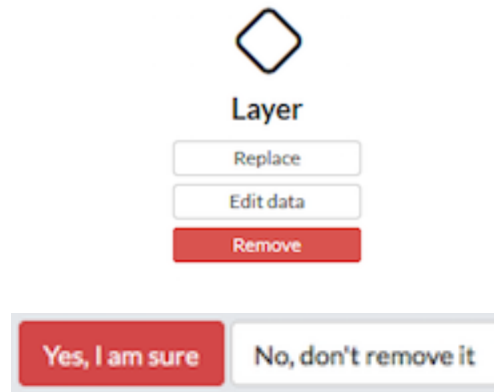
Available styles

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

Default Line
Default Point
Default Polygon
Default Raster
Generic
A dark orange polygon style
gold square point style

A dark yellow line style

Update Available Styles



Downloading data from a layer

Within Exchange, there are two ways to extract data and metadata, download a layer or download a layer's metadata. This facilitates the flow of geospatial data in (import) and out (export) of Exchange.

Download data

1. Click the *Download Layer* button.
2. Select the format in which you'd like the data to be downloaded. Exchange currently offers the following formats for use in multiple geospatial platforms:

Download Layer

View in Google Earth

KML

GeoJSON

Excel

CSV

GML 3.1.1

GML 2.0

Zipped Shapefile

PNG

PDF

JPEG

3. Save the file to your computer when the Save As dialog box opens.

Download metadata

1. Click the *Download Metadata* button.
2. Select the format in which you'd like to download the metadata.

Download Metadata

Full metadata

Text format

HTML format

Standard Metadata - XML format

Atom

DIF

Dublin Core

ebRIM

FGDC

ISO

3. Save the file to your computer when prompted.

Working with Maps

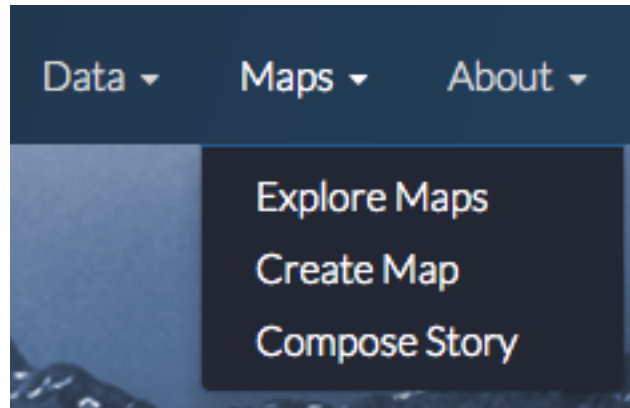
Maps are comprised of various layers and their styles. Layers are available as local layers, or they can be remote layers, served from other web servers. Exchange maps can be manipulated via map zoom and extent, layer ordering, and style.

Create a map

Maps can be created in the Explore Maps section, or from one or more layers in Explore Maps.

Create a new map

1. Select the *Maps* link on the Boundless Exchange toolbar.
2. Click **Create Map** in the drop-down menu.

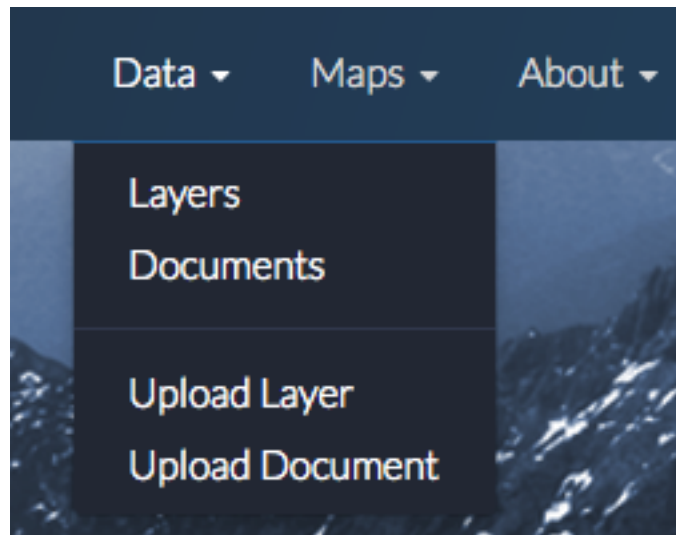


A new map environment will open, and you can begin working.

Create a new map from a single layer

Maps can be created in the Explore Layers section, or from one or more layers in Explore Maps.

1. Select the *Data* link on the Boundless Exchange toolbar, and click **Layers** in the drop-down menu.



2. Select the **Create a Map** link under the layer you'd like to add to the map. A new map will open with the layer as part of the map.

Create a new map from multiple layers

1. Click the *Shopping Cart* icon next to the layers you'd like to add to your map. They will display in your cart until you are ready to build your map.
2. Click the *Create a map* button to add all of the layers to a new map.

Explore Layers

Workspace	
DHH_facilities	✕
boundaries	✕
Set permissions	Create a Map

Remove a layer from the cart by clicking the X next to its name.

A new map will open with all of the layers displayed.

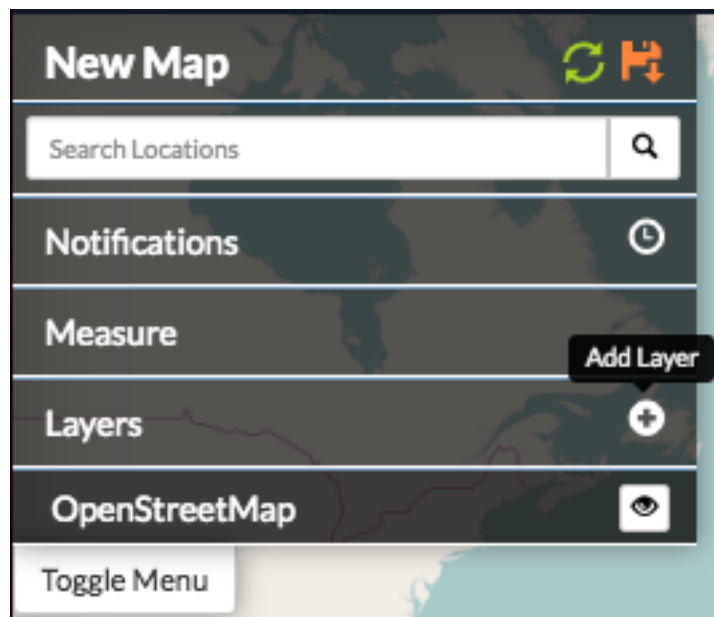
Add layers to a map

You can add layers to the map from within the map environment using the Add Layer feature. Layers can be added from either the local geoserver within Exchange, or from a registry.

The local geoserver hosts layers that have been added to Exchange by other registered users. Local layers can be discovered through an advanced search from the Boundless Exchange homepage, from the Explore Layers page, and from within the map.

Registry is a system for building, maintaining, and deploying a public registry of web map services of various types, OGC and Esri services. From a user's perspective, registry integration is within the mapping client. Rather than having to add multiple services into Exchange, registry exposes external services and allows the user to add them to their map.

1. Click the Add Layer (+) button in the Layers field.



The Add Layers window will open. A list of available layers will display on the right, but you can refine your search to find specific information.

Add Layers

KEYWORDS ?


Search

Clear

BOUNDING BOX ?

+

-



i

Refine layer list

Clear all

DATE CREATED ?

100

2100

Clear

OWNER ?

☐ sberry
☐ amiller
☐ whamilton
☐ ctesterman
☐ test
☐ dhemphill

☐ admin
☐ sstout
☐ rbabler
☐ cdavis
☐ cadams
☐ mcenac

Clear

CATEGORY ?

☐ Air (Aero)
☐ Basemaps
☐ Biota
☐ Boundaries
☐ Climatology Meteorology Atmosphere
☐ Economy

Clear

0 layers will be added to the map

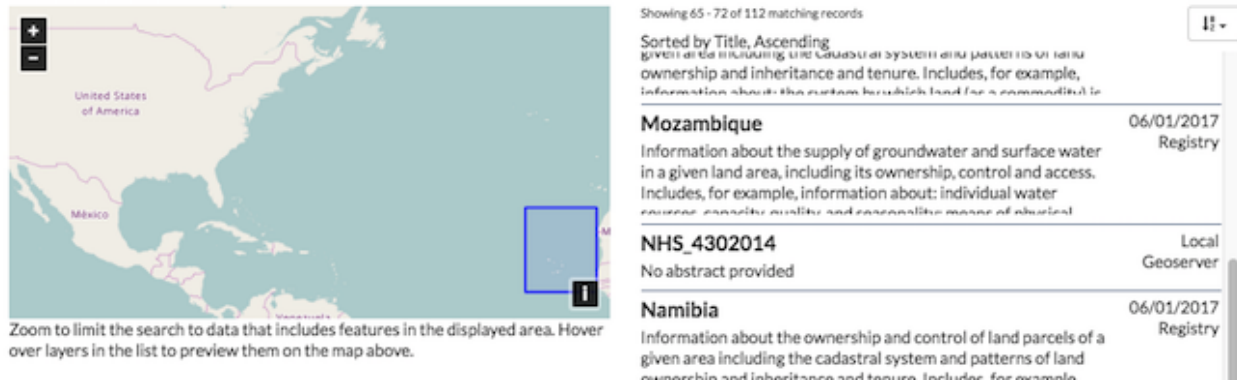
2. **Using the map** - Zoom in or out to your area of interest. The list of available layers will change to show you what is within the map extent (minus any layers currently on your map).

Hover your mouse over a layer in the results list. A bounding box will display over the layer's coverage area. Each layer will tell you whether it is from the local geoserver, or the registry.

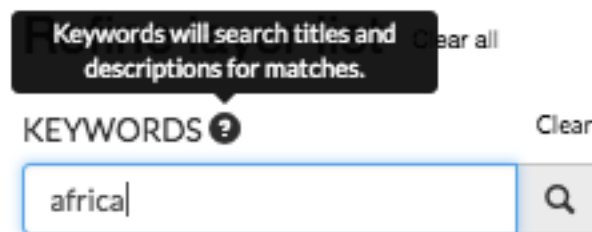
3. **Keywords** - Add keywords to find specific layers. Words associated in the metadata, and the title are used for

1.5. Working with Maps

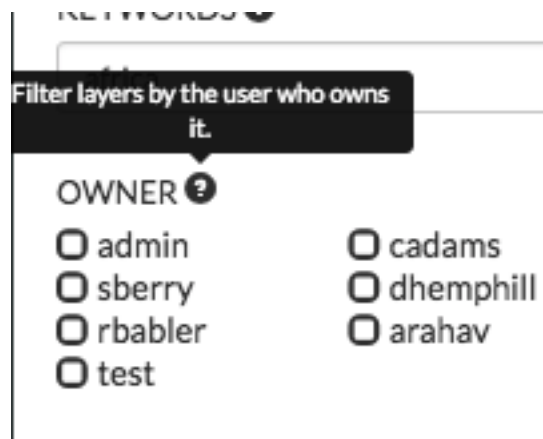
45



results. Select the Clear link to remove the filter.



4. **By owner** - Click the checkbox next to an individual's name to return layers added by that user. If you are collaborating on a project, this is a fast way to find layers from your team members.



5. **Date Created** - Click and drag the time bar to filter layers by their creation date.
6. **Category** - Click the checkbox next to one or more categories to filter layers by their metadata category.
7. Once your results have been filtered, select the layers you'd like to add to your map from the results list, and click the *Add Layers* button. Your layer(s) will now display on your map, and in the layers list.

2 layers will be added to the map

DIVA GIS State LO Admin Boundaries X

DHH_facilites X

Change layer order

Layers on a map are drawn from bottom to top. The top layer in your list will display on top of any layers below it. Each layer will appear in the order it is displayed in your list. Sometimes a layer may need to be reordered so it can be more clearly displayed.

1. Click on the name of the layer you want to reorder.
2. Drag the layer up or down to the desired position.

Toggle layer visibility

Toggle Visibility allows you to turn a layer's display off and on without having to remove the layer from the map completely.



1. Click the Toggle Visibility button to turn a layer off.
2. Click the Toggle Visibility button again to turn a layer back on.

Zoom to data

The Zoom to data button allows you to center the map quickly on a particular layer. It is particularly convenient when you need to quickly return to the extent of the data for that layer.

1. Click a layer in the layer list.
2. Click the *Zoom to data* button. The map will zoom in and center on that particular layer's extent.

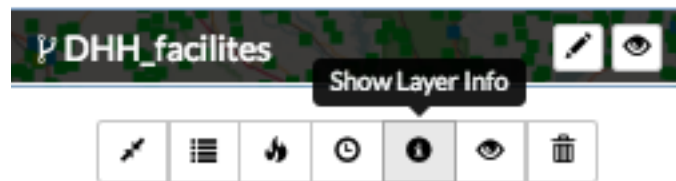


Important: If a layer's visibility is dependent on scale, and the data extent is at a lower scale, you will need to zoom in to view the data.

Show layer info

Information about a layer is available in the map by clicking the Show Layer Info button. Show Layer Info will include server information, basic metadata, and the projection (SRS).

1. Click on a layer name in the layer list to expand the layer options.
2. Click the *Show Layer Info* button.



The Layer Info window will display.

Remove a layer from the map

1. To remove a layer from the map, click the name of the layer you'd like to remove, and click the *Remove layer* button in the layer tools.
2. Click the *Yes* button to confirm.


Get feature information

To get information in a vector layer, simply click a feature on the map. Once you click the feature, the information window will display. The point of the information window will touch the feature you clicked.

Change attribute visibility

Individual attribute visibility can be turned off and on in a feature window. This can make managing large numbers of attribute fields in a layer easier.

1. In the layers list on the map, select on the layer whose attribute visibility you'd like to change. The layer's additional options will display.
2. Click the *Show Attribute Visibility* button to open the list of attributes for the layer.
3. Click on the *Toggle Visibility* button for an attribute to turn it off and on.

Layer Info 

Name

DHH_facilites

Title

DHH_facilites

Workspace

geonode

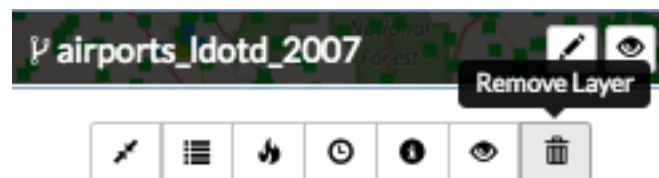
FeatureType

DHH_facilites

Abstract

No abstract provided

Keywords

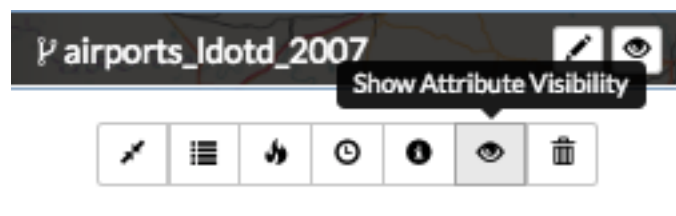
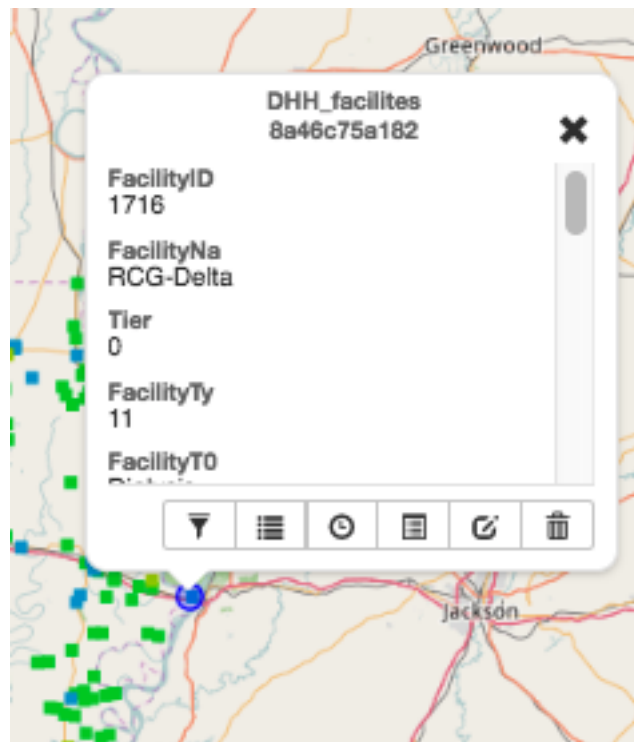


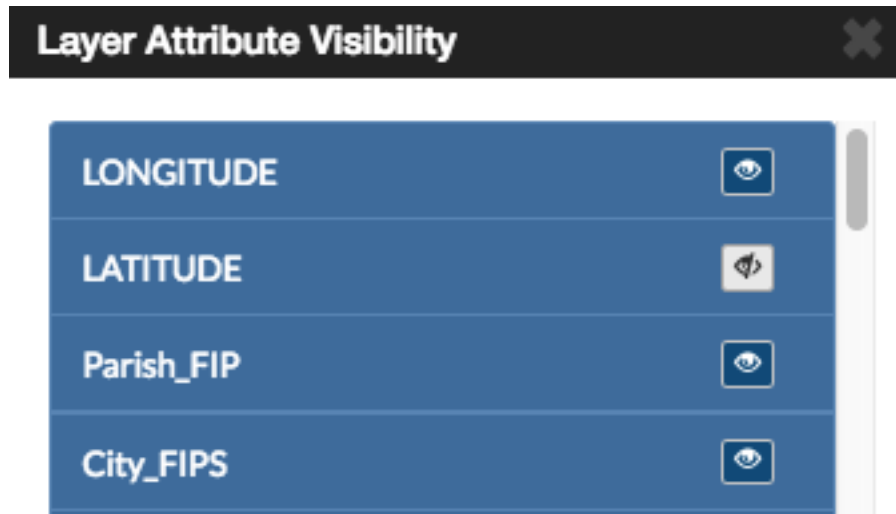
Remove Layer

Are you sure that you want to remove this layer?

Yes

No

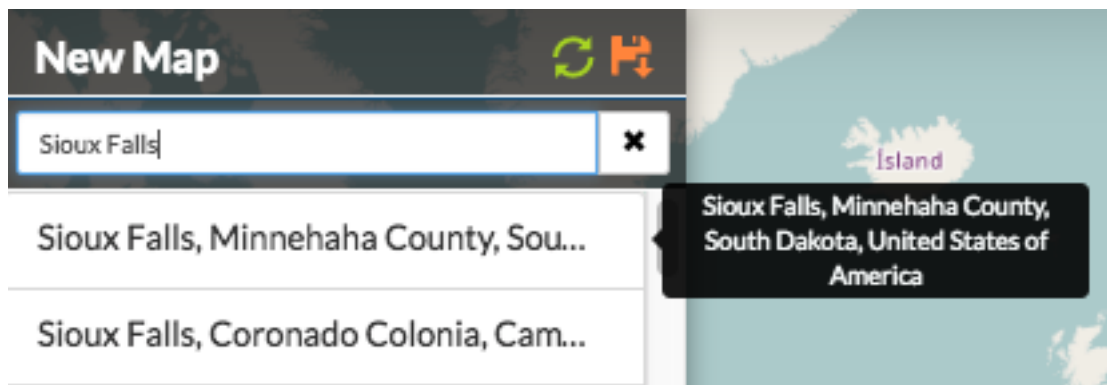




4. Select a feature on the map from that layer. The attribute will no longer appear in the feature information window, as it has been toggled off. Repeat these steps to toggle it back on.

Search for locations

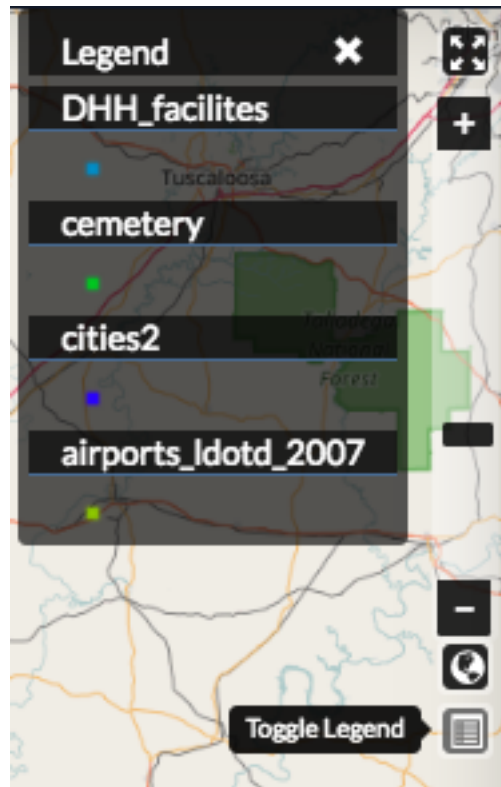
Find a specific location on the map simply by typing the name of a place, zip code, address or lat/long (DMS or DD) in the Search Locations text box. Click the search button to return a list of possible matches. Scroll through the list, and select one of the matches. The map will recenter on that location. This is a simple search, and does not allow wildcards.



Using the legend

A legend displays the symbols used for vector layers in a map. It can be toggled off and on to maximize screen space when necessary.

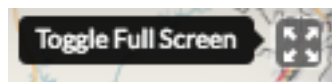
Click the Toggle Legend button to toggle the legend off and on.



Additional map features

There are additional features which allow you to change your coordinate display, your full screen extent, and your map scale.

1. Click the *Toggle Full Screen* button to maximize your map environment to the full screen.

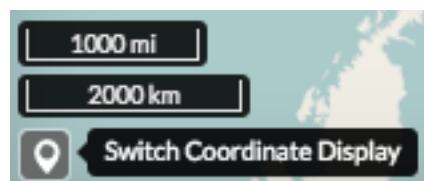
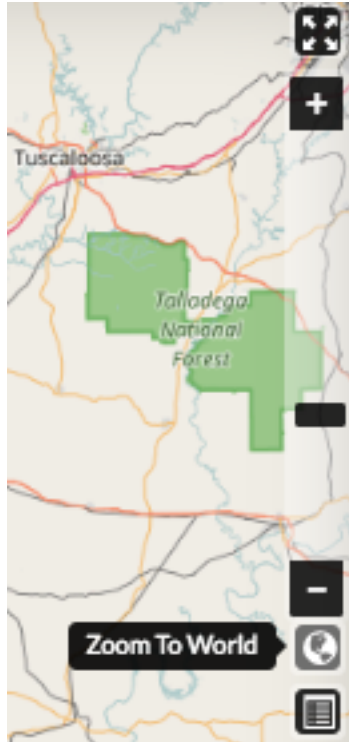


2. Click the *Zoom In (+) / Zoom Out (-)* buttons, or click and drag the scroll bar to zoom in and out on the map. Click the *Zoom to World* button to return to the world view.
3. Click the *Switch Coordinate Display* button, in the lower left corner of your map, to change the coordinate system. Your available options are DMS, DD (or XY) and MGRS. Click the button additional times to cycle through to your desired display. Your scale bar is located just above the coordinate display.

Measure distance or area

You can measure distance or areas on your map using the Measure tool.

1. To measure an area or distance on the map, select the Measure field. The measure tools will open, and you can select whether you want to measure a line distance, or an area.



2. **Area** - Click the *Area* button in the Measure tools. Begin drawing by clicking your mouse on your map at your starting point. Click subsequent points around the area you want to measure. To complete your measurement, you will need to ensure you close your polygon by clicking on your starting point.

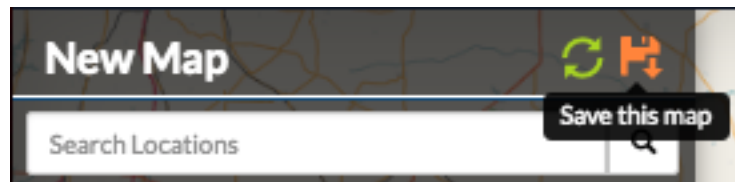
Line - Click the Length button in the Measure tools. Begin drawing by clicking your mouse at your starting point. Click subsequent points along the route or feature you want to measure.

3. To complete your measurement, click your mouse at the end distance. The line will turn from a bold blue to a thin blue line. The distance will display as meters/kilometers, miles or feet, depending which unit you have selected.
4. Click the *Stop Measuring* button to clear your map and measurements.

Save a map

Saving a map allows you to maintain your preferences for the next use, as well as makes it available for other Exchange users.

1. Click the Save this map button.



2. Add a title and an abstract for your map so it is searchable by others. Click the Save button to save your changes. The name will be reflected in the title, and replace “New Map.”

The Map is now saved in the list of maps on the Maps page.

Create a copy of a map

You can use an existing map as a starting point for another map. This allows you to incorporate the work others have done without changing their maps.

1. Click **Maps** on the Boundless Exchange toolbar, and select Explore Maps in the drop-down menu.
2. Select on the map you would like to copy. This will open the map details page.

Click the *Create a New Map* button under the Copy this map section.

A new map will open, populated with all of the layers of the map you copied.

3. Click the *Save this map* button on the toolbar.
4. Add a new title and an abstract, possibly indicating this is a copy of another map.
5. Click the *Save Copy* button.

Save this map

Title

Title

Abstract

Close

Save

Copy this map

Duplicate this map and modify it for your own purposes

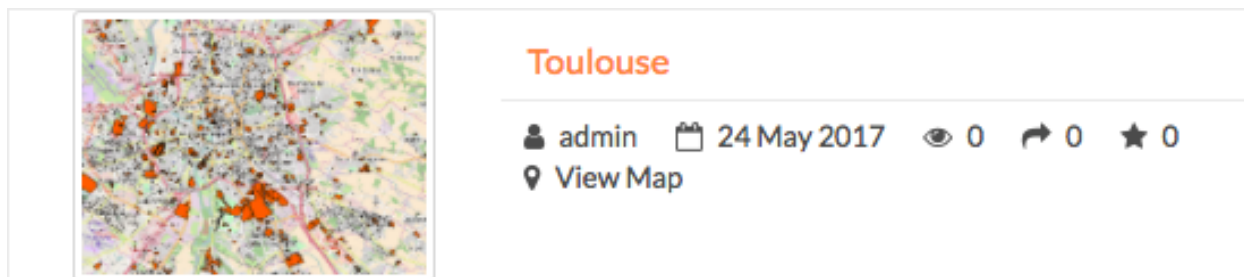
Create a New Map

Your new map is now saved, and can be accessed from the maps page.

Important: You are only copying the map. Any changes you make to the layer (data set) will affect both maps. Copying the map would primarily be used to make visual changes.

Managing Maps

Every map has its own details page, which provides more information about the map, the metadata and who has what permissions for making edits. To get to the details page for a map, click on the map title.



The map details page provides a view of the map, along with information about the map. It also tells you which layers are used in the map.

Download data layers

Here you can download the contents of a map that is stored in Exchange. It does not download data from other servers, however.

1. Click the *Download Map* button.
2. Select **Download Data Layers**.

If multiple layers exist, you will be able to select one or more of the available layers.

3. Select the layer(s) you want to download individually, or the *Start downloading this map* button to begin downloading.

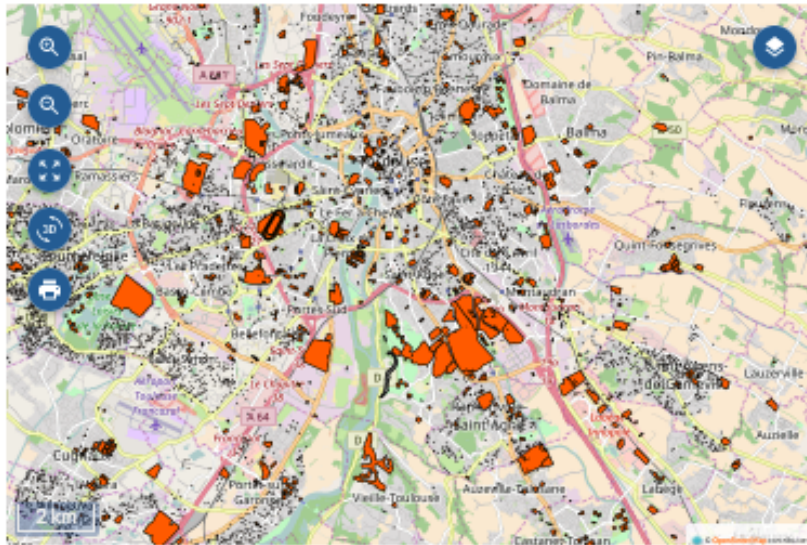
Download Web Map Context

The Web Map Context (WMC) is an open geospatial consortium (OGC) standard for metadata describing a map service.

1. Click the *Download Map* button.
2. Select **Download Web Map Context** from the menu.

A new tab will open with the XML for the web map context.

Toulouse



Info

★ Ratings

Comments

Title Toulouse

Publication Date May 24, 2017, 11:43 a.m.

Owner admin

More info

Download Map

Metadata Detail

Edit Map

View Map

Map Layers

This map uses the following layers:

[gis_osm_natural_a_v06_0ecd8db2](#)

[gis_osm_pois_a_v06](#)

Thumbnail



Permissions

Specify which users can view or modify this map

Change Permissions of this Map

Copy this map

Duplicate this map and modify it for your own purposes

Create a New Map

Map WMS

WMS layer group for local map layers:
(on [local OWS](#))

Publish local map layers as WMS layer group

Publish Map WMS

About

Owner, Point of Contact, Metadata

Author



admin

No Group

Download Map

[Download Data Layers](#)

[Download Web Map Context](#)

Map Layers

This map uses the following layers:

[levees_USACE_2006](#)

[cemetery](#)

[DHH_facilities](#)

[airports_idotd_2007](#)

Download Map

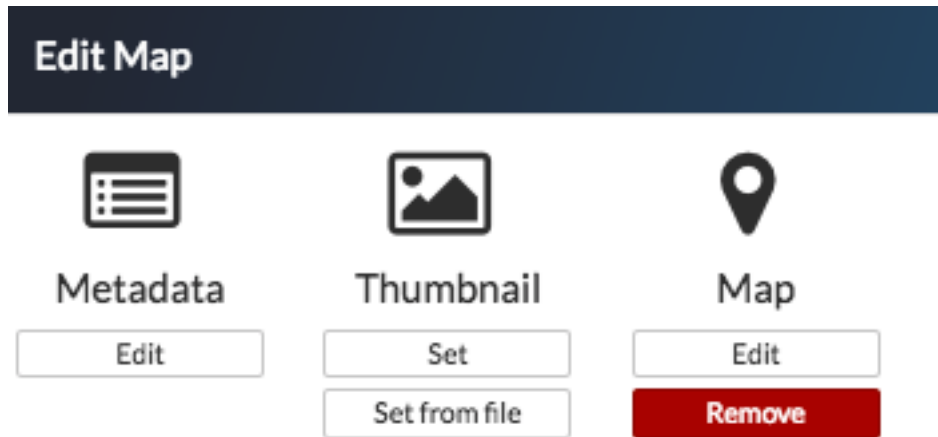
[Download Data Layers](#)

[Download Web Map Context](#)

Edit map metadata

Metadata plays an important role for maps. It describes the map in a way that the legend does not; why it was created, the date it was published, and who created it, for example. When a map is updated, it is important to update the metadata, as well. You can edit the information about the map if you have the proper permissions.

1. Click the *Edit Map* button
2. Click the *Edit* button under Metadata on the Edit Map menu.



3. In the metadata page, fill in the fields with information about the map. The more information you provide, the better others will understand your map.
4. Click the *Update* button at the top or bottom of the page to save your changes.

Set map thumbnail

By default the thumbnail images for maps will only have the vector layers. In order to include the background map you will need to use the Set Map Thumbnail button.

1. Pan and/or zoom the inset map on the **Map Details** page so that it's centered on the view you would like for the map thumbnail.
2. Click the *Edit Map* button.
3. Click the *Set* button under Thumbnail on the Edit Map menu.

This will set the map thumbnail with the base map and layers included.

Create a custom thumbnail

Custom images related to your map can be created, and will display next to the map on the Explore Maps page.

1. From the map's info page, click the *Edit Map* button.
2. Click the *Set from File* button to browse to the image. Select the image you want to use, and verify it displays in the thumbnail section.

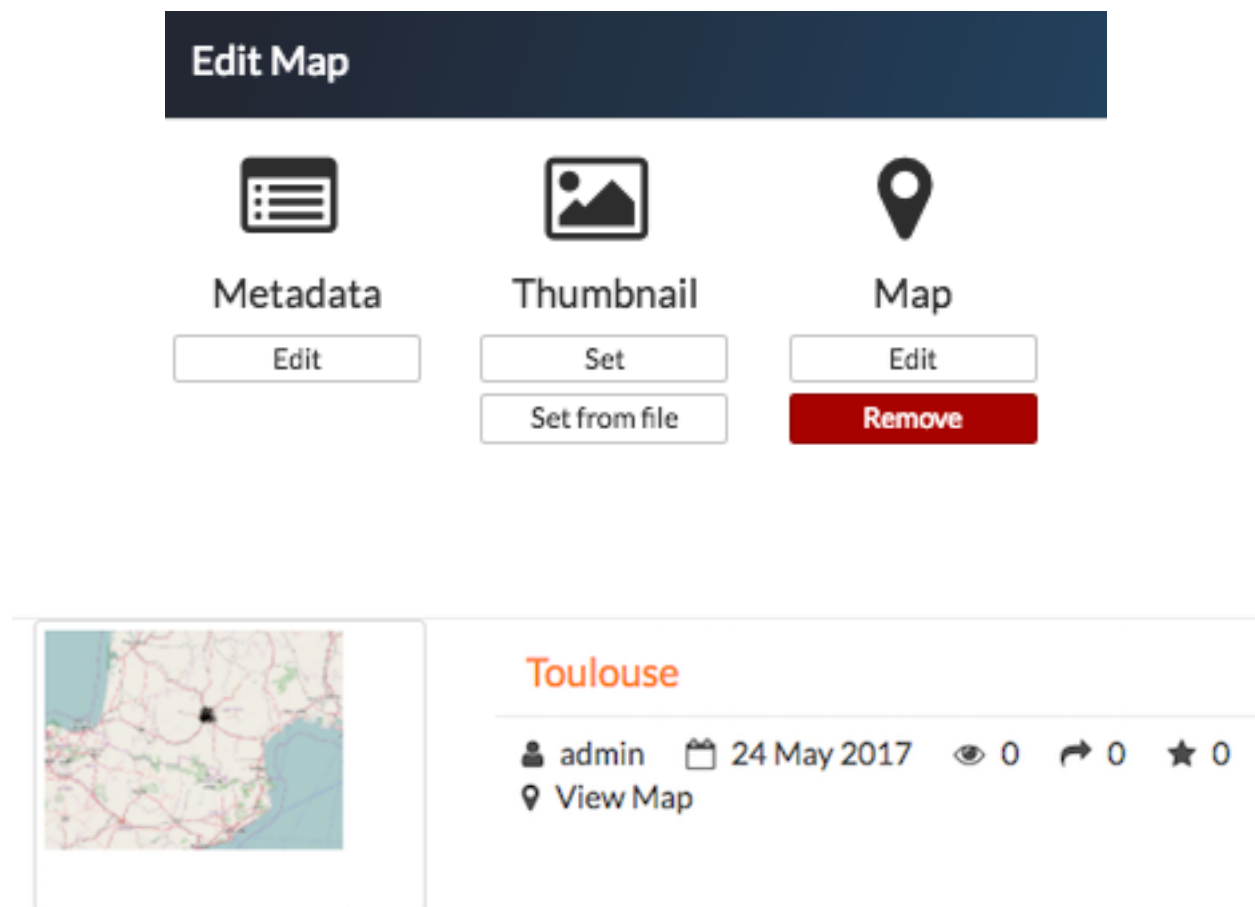


Fig. 1.1: *Old Thumbnail*

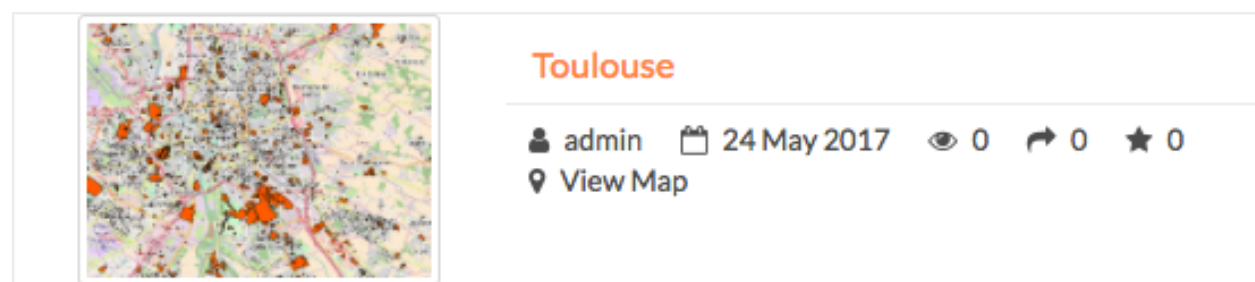


Fig. 1.2: *New Thumbnail*



Edit map permissions

The map permissions determine which users can view or edit a map. The permissions can be set to establish:

- Who can view it?
- Who can download it?
- Who can change metadata for it?
- Who can manage it (update, delete, change permissions, publish/edit)?

1. Click the *Change Permissions of this Map* button in the Permissions section.

Permissions

Specify which users can view or modify this map

Change Permissions of this Map

2. Establish the permissions for viewing, editing, and managing according to your needs.

Set permissions for this resource ×

Who can view it?

☒ Anyone

The following users:

✕ admin

The following groups:

Who can download it?

Who can change metadata for it?

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

Cancel

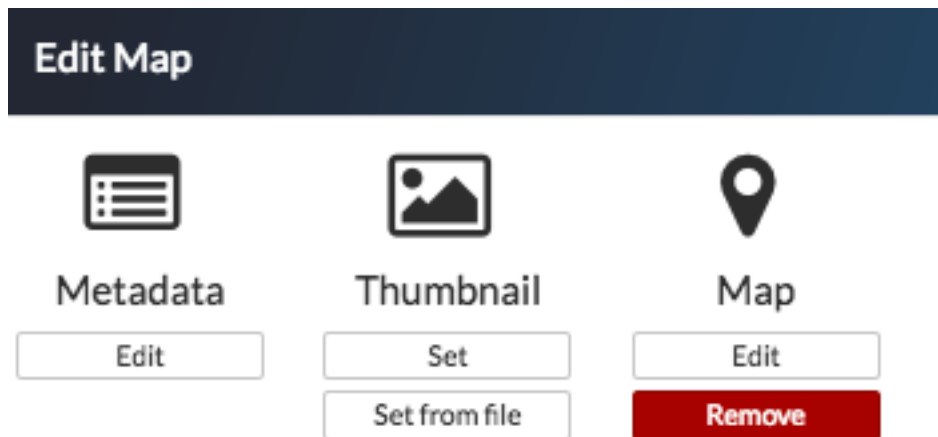
Apply Changes

3. Click the **Apply Changes** button to save changes.

Remove a map

You are able to remove a map from Exchange. It is important to note that this will remove the map for all users.

1. Click the *Edit Map* button.



2. Click the red *Remove* button under Map in the Edit Map menu.
3. Click the *Yes* button to confirm.

Remove Map

Are you sure you want to remove **Toulouse**?



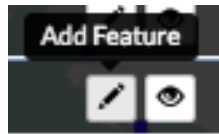
Editing and Version Management

Edit Features

Vector layer permissions can be set so the layer can be edited by other users. The editing tools will be available to you in the map, if you have permissions to edit a layer. If a layer was saved as a GeoGig layer, then you can work with the layer's edit history as well.

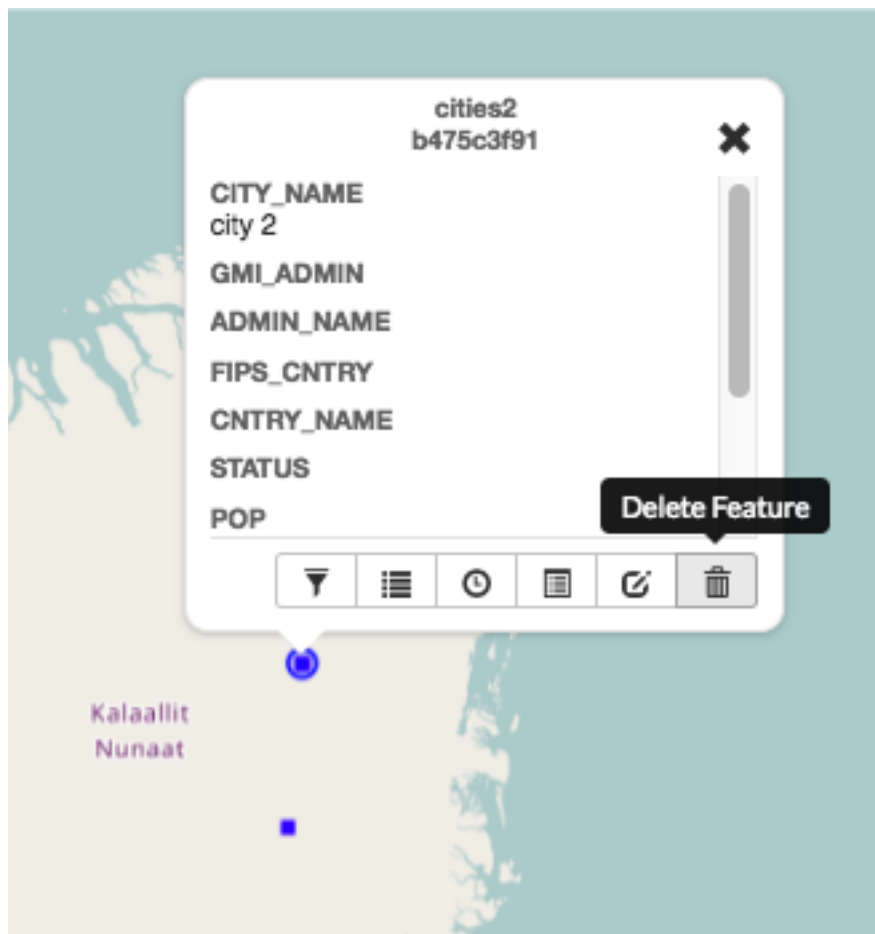
Add a point feature to a layer

A layer that is able to be edited will have the *Add Feature* button available.



1. Click the *Add Feature* button. The Drawing Geometry dialog will appear at the top of the map.
2. Click on the map to add your point feature.
3. Click the *Accept Feature* button to keep the geometry. Click the *Cancel Feature* button to remove the added feature.
4. After the feature is accepted, the Edit Attributes window will open. Fill out the fields, or select values from the dropdowns to add attribute values.
5. Click the *Save* button at the bottom of the form to save the feature to the layer.

Note: To delete a feature, click on the feature to be removed, and select the Delete Feature button. Select Yes to confirm.

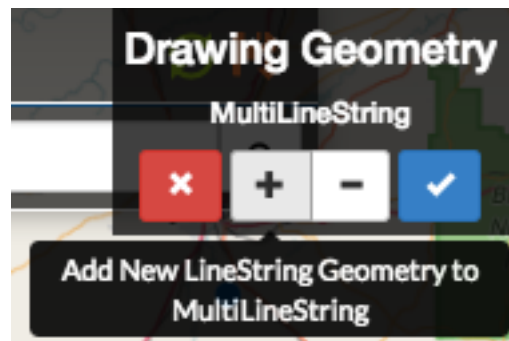


Add a line to a layer

A line layer consists of lines that represent features such as roads, powerlines, waterways, *etc.*

1. Click the *Add Feature* button. The Drawing Geometry dialog will appear at the top of the screen.
2. Click on the map to begin drawing the linear feature. Click additional points to add all of the vertices. Double-click the last vertex to finish drawing the line.
3. Click the *Accept Feature* button to add the geometries to the layer.
4. After accepting the feature, populate the attributes in the Edit Attributes window with any required information.
5. Click the *Save* button to save your changes.

Note: To add a multi-line feature, select the *Add Geometry* button.

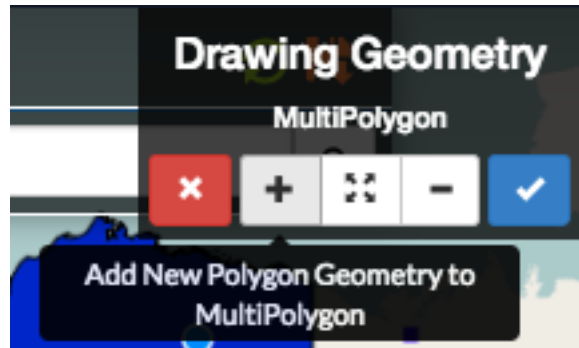


Add a polygon feature to a layer

Polygons can be used to represent many different features, including buildings, bodies of water, hazardous areas, *etc.* A simple polygon layer has a single polygon per feature.

1. Click the *Add Feature* button. The Drawing Geometry dialog will appear at the top of the screen.
2. Click on the map to begin adding the polygon. Continue to click to add all of the vertices. To finalize the polygon, close the geometry by clicking on the first vertex again.
3. Click the Right Angles button to create right angle corners on your polygon.
4. Click the *Accept Feature* button to add the geometries to the layer.
5. After accepting the feature, populate the attributes in the Edit Attributes window with any required information.
6. Click the *Save* button to save your changes.

Note: To add a multi-line feature, select the *Add Geometry* button.



Edit attributes

If a layer is able to be edited, Exchange allows you to make attribute changes directly from the map.

1. Select a feature on the map. The feature info box will appear.
2. Click the *Edit Attributes* button to open the Edit Attributes window.
3. Add attribute information as necessary.
4. Click the *Save* button to save your changes.

Edit point geometries on the map

Point layers can be either simple point or multi-points layers. For simple point layer, there is one point per feature. Multi-point layers will have more than one point per feature.

1. Select a point feature on the map to open the feature info box.
2. Click the *Edit Geometry* button. This will open the Drawing Geometry dialog at the top of the screen. Your selected feature will be highlighted in blue.
3. Click and drag the feature to a new location.
4. Click the *Accept Feature* button to save the new feature location. Click the *Cancel* button to cancel your edit.

Edit point geometry manually

Coordinates for point geometries can also be edited manually. This is useful when you have the coordinates from another source (such as a report or agency).

1. Select a point feature on the map to open the feature info box.
2. Click the *Edit Attributes* button. The Edit Attributes window will open.
3. Click the Location field to edit the point's coordinates. Add the new location.
4. Click the *Save* button to save your changes.

Edit line or polygon geometries

Any existing feature in a layer can be modified, if you have permission to edit the layer. A layer that has been saved to GeoGig will maintain a history of all of the edits to ensure the provenance of the data.

1. Select a feature on the map to be edited. This will open the feature info box.
2. Click the *Edit Geometry* button. The Editing Geometry dialog will open.
3. Mouse over the geometry to highlight the vertex to edit. Click and drag the vertex to a new location. Repeat to edit any additional vertices.

Version Management

GeoGig is a specialized database that was designed for distributed editing, and supports collaborative editing of geospatial data. It is designed for vector data (point, line, polygon, etc.), and is recommended as the best way to maintain a reliable history of changes to your data.

When a layer has been stored in GeoGig, it maintains the history of all of the edits made to the data, along with who made the changes and when. Within the web map, you can view the history for a layer and for the features.

GeoGig tab in Boundless Exchange

GeoGig layers in Boundless Exchange will have a GeoGig tab in addition to the other tabs on the Layer information page. The history is a list of commits that have been made to the layer.

In the layer information page, click on the GeoGig tab to see the chronological list of commits. The number of commits, and the total number of contributors will display.

Notifications

Because Exchange is a real time collaboration tool, it is important for users to be able to see what changes other team members are making to a project. When users upload layers, they are given the option to import the layer(s) into GeoGig, which will show who has made what changes (for more on GeoGig, please reference the Working with Layers Management section). If another user has made modifications to a layer currently on the map, a number will appear next to the Notifications indicating how many unread notifications you have. The more notifications, the more changes that have been made to your map layers.

1. Click on the number of unread notifications to open the Notifications list in the layers menu. This will show you all of the changes that have been made to your layer. If there have been multiple changes, they may be grouped into sections based on when the changes occurred. Click on the grouping you would like to view.
2. From here you can either select *View on Map* or *Show Changes* to see what has been modified. View on Map will show you where the changes have been made on the map.
3. Click the *Show Changes* button. Select *Yes* to acknowledge changes have been made to a feature, and compare the two versions.

[Info](#)
[Attributes](#)
[Ratings](#)
[Comments](#)
[GeoGig](#)

Title cities2

Abstract No abstract provided


Publication Date Jan. 17, 2017, 12:15 p.m.

Type Vector Data

Owner sberry

More info -

Clone URL:

 https://dev.exchange.boundlessps.com/geoserver/geogig/repos/test_repo

About this GeoGig Layer:

TOTAL COMMITS	TOTAL CONTRIBUTORS
8	2

Recent Commit History:

Modified 1 feature in 'cities2' via MapLoom.

Authored Tomorrow at 10:45 AM by: anonymous

2bed7f47fe

Modified 1 feature in 'cities2' via MapLoom.

Authored Tomorrow at 10:45 AM by: anonymous

969d541f35

Modified 1 feature in 'cities2' via MapLoom.

Authored Tomorrow at 10:45 AM by: anonymous

a454c6006d

Modified 1 feature in 'cities2' via MapLoom.

Authored Tomorrow at 10:45 AM by: anonymous

d6e789fb07

Fig. 1.3: Commit history within the GeoGig tab

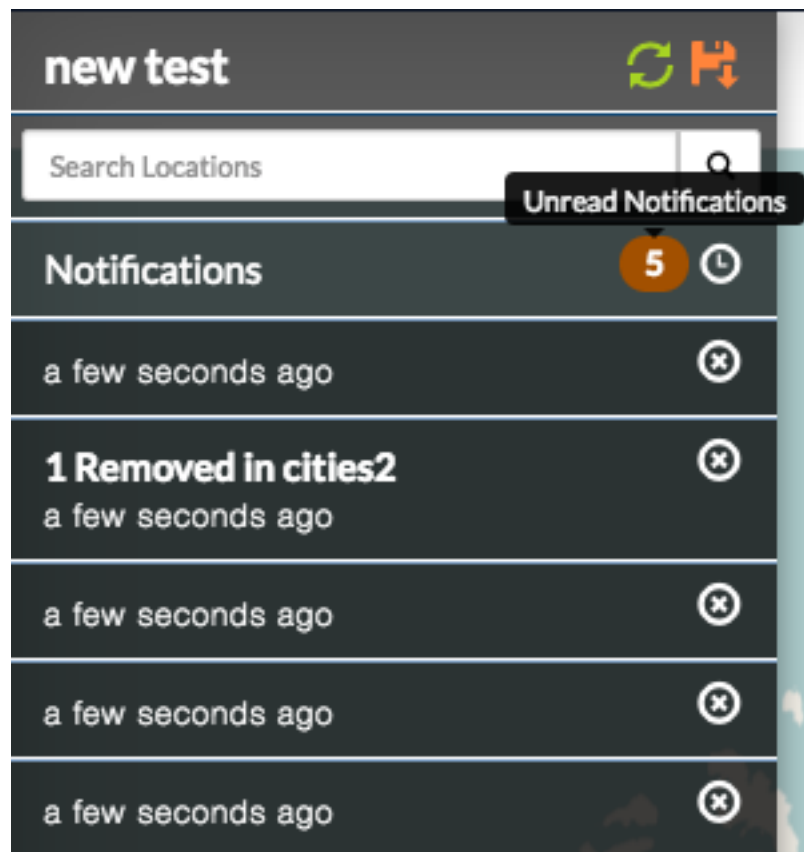
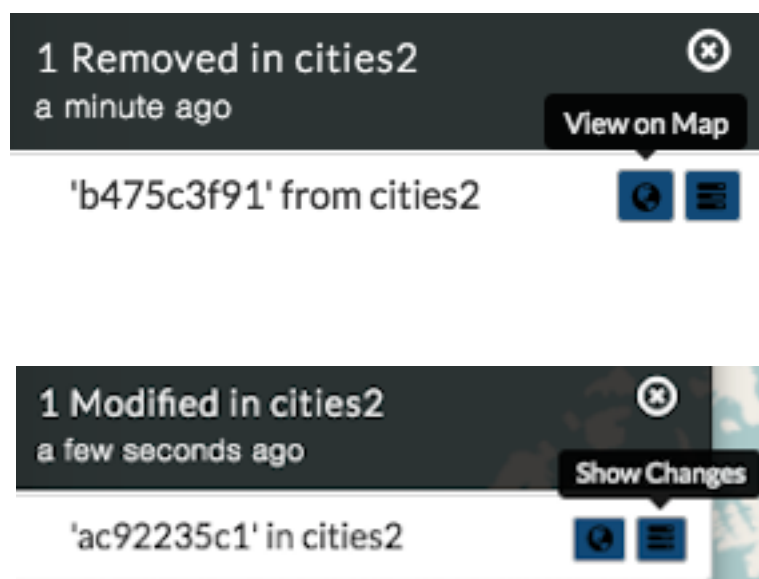


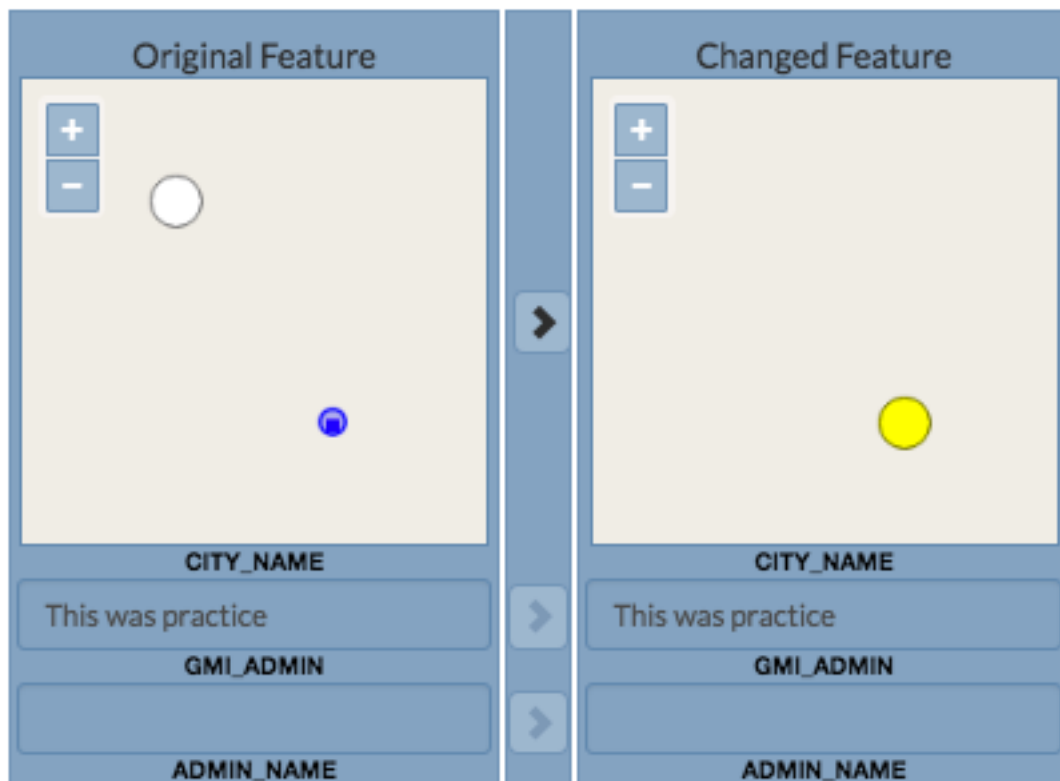
Fig. 1.4: Multiple changes were made to this layer, and have been grouped by time.



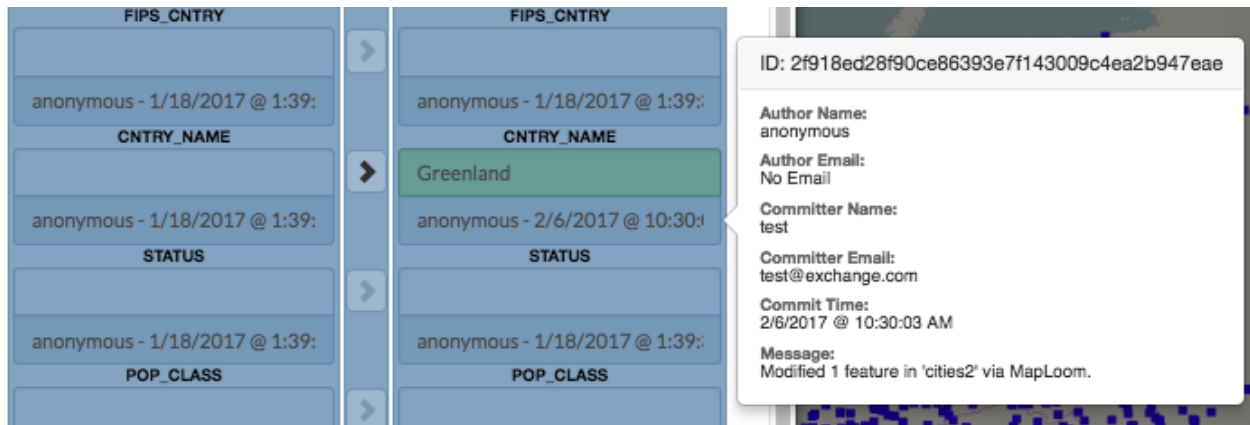
Warning

This feature has been modified since this notification was posted. Would you like to compare with the newest version?

You will see a detailed side-by-side comparison of the features that have been edited.



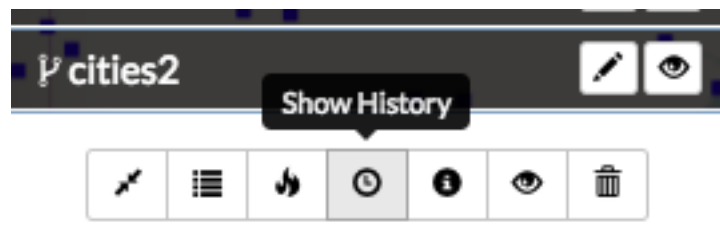
4. Changes made to the feature attributes will be highlighted in red, green or yellow, depending on whether the change was a deletion, addition or edit. Click the *Show Authors* button and hover your mouse over the highlighted area to open a detailed description of the individual edit.
5. If you do not approve of the changes, or feel they were made in error, you are able to select the *Undo Changes* button at the bottom of the details window to revert to the original feature.



View layer history

You can view all of the changes made to an entire layer from the map.

1. Select the name of the layer you want to view. The menu will expand to show additional layer options.
2. Click on the *Show History* button. The history will expand.



3. Hover your mouse over a commit to view details about the changes. The color bar next to the commit indicates the type of edits that were made. Green indicates a new feature was added. Yellow indicates a feature was modified. Red indicates a feature was deleted. A commit can have multiple types of edits. In such cases, the bar will have colors representative of the types of edits that were made.
4. Click on a commit, and its history will update to show the individual edits within that commit. MapLoom will make one commit per edit.
5. Click the *Show Changes* button to bring up a new window, displaying the specific changes that were made. The changes will be highlighted with the same color coding as the commits. Green means something was added. Yellow means the feature was changed. Red means the feature was deleted. In the image below, the feature was added, and so the feature on the map is highlighted in green.

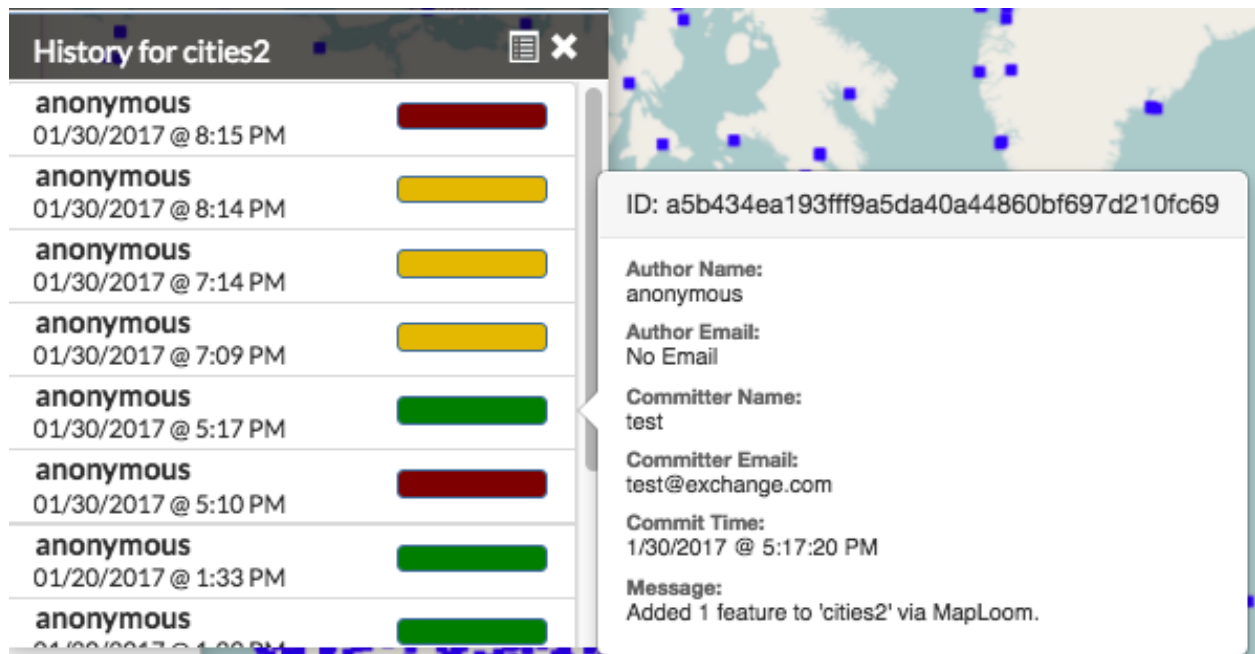
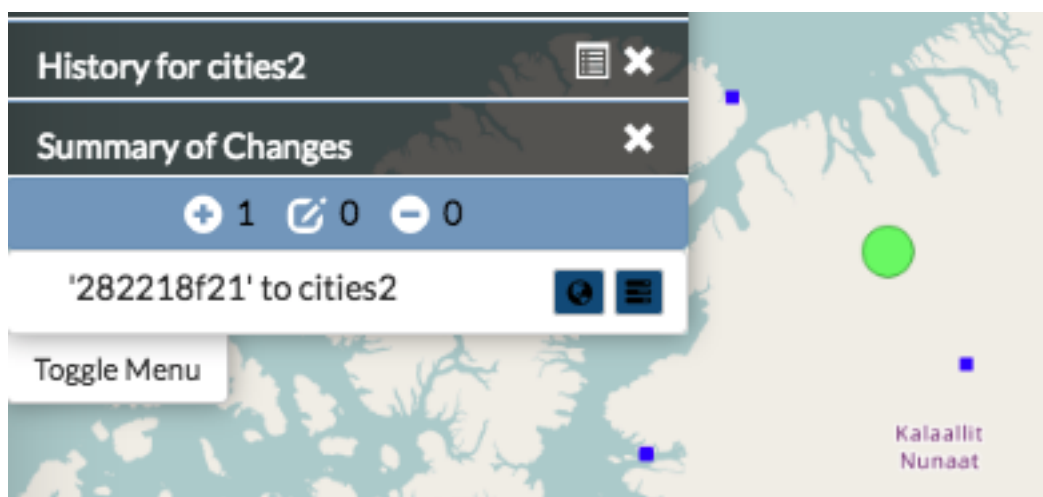


Fig. 1.5: History detail for a commit



cities2/282218f21

New Feature

+

-

CITY_NAME

This was practice

GMI_ADMIN

ADMIN_NAME

FIPS_CNTRY

CNTRY_NAME

STATUS

POP_CLASS

POP

POP_RANK

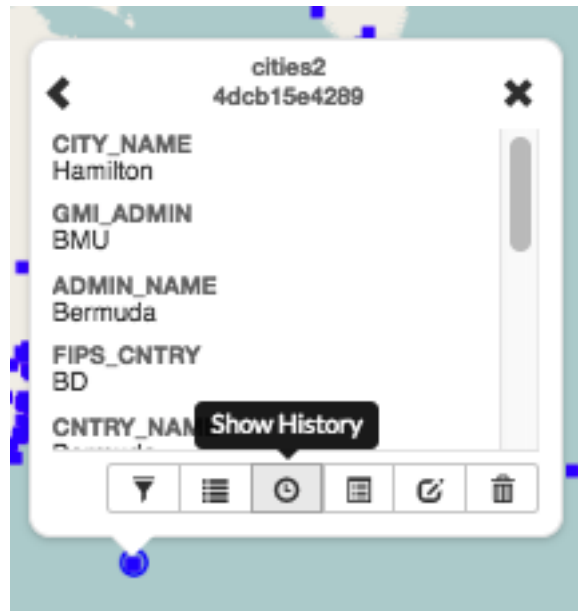
PORT_ID

LABEL_FLAG

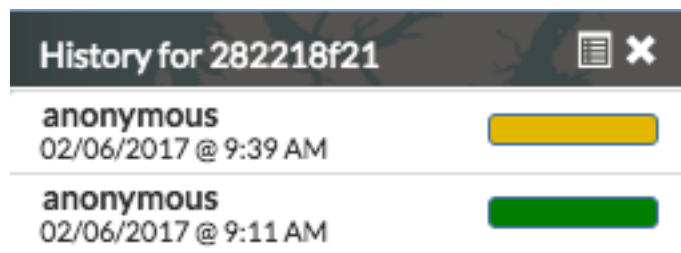
View feature history

In addition to viewing the history of edits on a GeoGig layer, you can also view the history of a feature.

1. Select a feature on the map. The feature details will appear.
2. Click the *Show History* button. The history list will expand with the commits that contain changes for that feature.



3. Click the specific commit whose history you'd like to view. The history will update to show the edits made to the feature for that commit. Information about the feature will display as you hover your mouse over the changes.



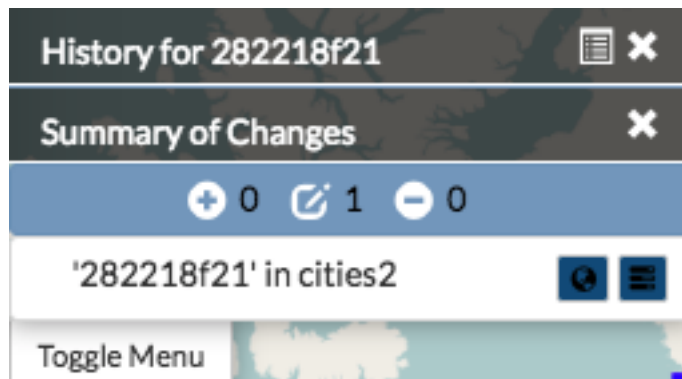
4. Click the *Show Changes* button to bring up a new window, displaying the specific changes that were made.

The changes will be highlighted with the same color coding as the commits. Green means something was added. Yellow means the feature was changed. Red means the feature was deleted. In the image below, the feature was added, and so the feature on the map and its attributes are highlighted in green.

1. Click the *Show Authors* button to see the names and dates for every attribute in the feature. Note that through the lifetime of a feature, there can be several authors. This is a good way to see who has contributed to a feature's current state.

Summarize history

You can visualize a summary of all of the edits within a date range for a layer.



1. Click the *Show History* button for layer you want to summarize.
2. Click the *History Summary* button.
3. Enter the date range for the history to summarize.
4. Click the *Summarize* button. The edited features will be highlighted, and will be listed under the Summary of Changes field.
5. Click the *Show Changes* button for one of the edits in the list to see a detailed view.

Export history

You can export a summary of all of the edits within a date range for a layer.

1. Click the *Show History* button for layer you want to summarize.
2. Click on the *History Summary* button
3. Enter the date range for the history to summarize.
4. Click the *Export CSV* button.
5. When prompted to save the file, browse to the location where you want to save it, and click Ok.

All of the feature change history will be added to the spreadsheet.

Analyzing data with Exchange

Working within the attribute table

In the **Editing and Version Management** section, you learned how to add data to the attribute table, and how to edit the attributes of a feature on the map. Here we will discuss how to manipulate the data from within the attribute table to find exactly what you need.

To open the **Table View**, click on a layer, and select the *Show Table* button.

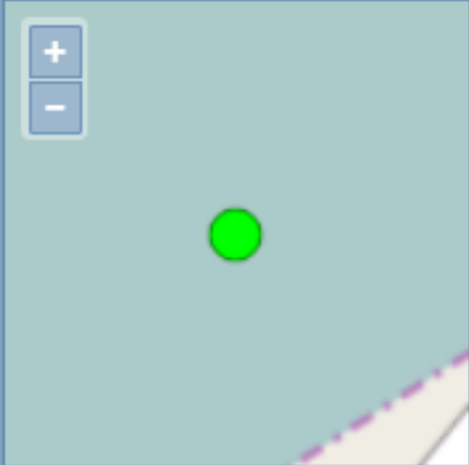
All of the data provided for this layer will display in the Table View, though you may need to scroll up and down, or left and right to view all of the data on the page. Select the left or right arrow buttons to move to a different page.

cities2/4dcb15e4289

New Feature

+

-



CITY_NAME

Hamilton

GMI_ADMIN

BMU

ADMIN_NAME

Bermuda

FIPS_CNTRY

BD

CNTRY_NAME

Bermuda

STATUS

National and provincial capital

POP_CLASS

Less than 50,000

POP

902

POP_RANK

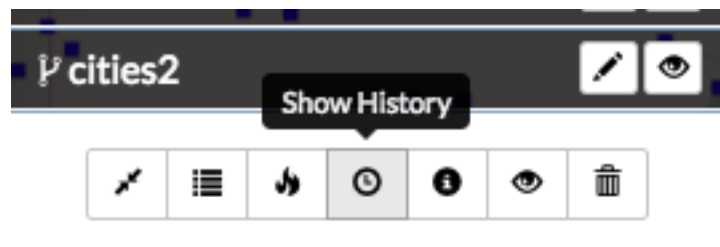
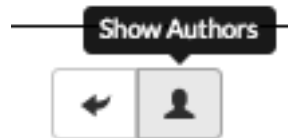
7

PORT_ID

9960

LABEL_FLAG



0




Synchronization		History Summary
History for cities2		
anonymous	02/06/2017 @ 9:39 AM	<div></div>
anonymous	02/06/2017 @ 9:39 AM	<div></div>
anonymous	02/06/2017 @ 9:11 AM	<div></div>
anonymous	02/06/2017 @ 9:10 AM	<div></div>
anonymous	01/30/2017 @ 8:15 PM	<div></div>



Select Date Range

Start Date:

02/06/2017  9:23 AM 

End Date:


02/06/2017 

















 

< February 2017 >


Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	1	2	3	4
5	6	7	8	9	10	11

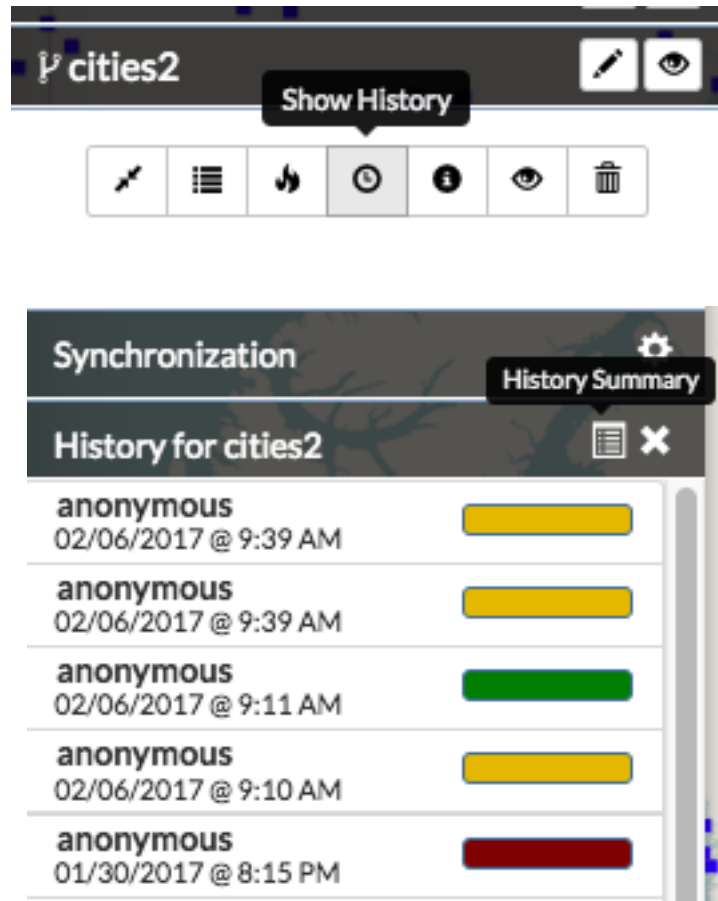
Summary of Changes

+ 1000  0 - 0

'4641' to cities2	 
'4642' to cities2	 
'4646' to cities2	 
'4647' to cities2	 
'4640' to cities2	 
'4643' to cities2	 
'4644' to cities2	 
'4645' to cities2	 

Toggle Menu





Select Date Range

Start Date:

01/07/2017



10:31 AM



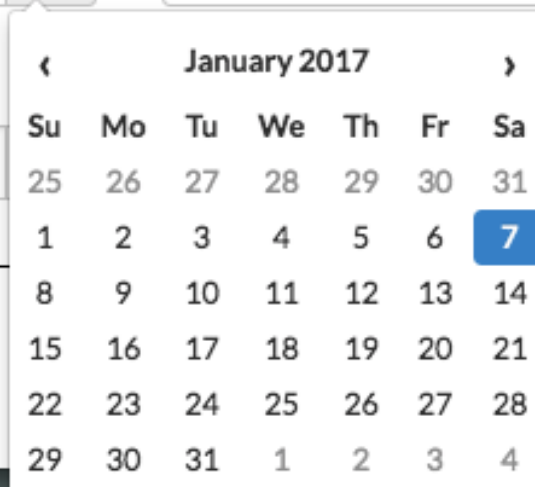
End Date:

01/31/2017



Export CSV

Summarize



A	B	C	D	E	F	G	H
ChangeType	FeatureId	CommitId	Parent Commit	Author Name	Author Email	Author Commit	Committer Name
MODIFIED	cities2/2822	ae5a321e30	ecc40149848	anonymous		02/06/2017	test
MODIFIED	cities2/ac922	ecc40149848	3db5726005	anonymous		02/06/2017	test
ADDED	cities2/2822	3db5726005	ebb23c91a3	anonymous		02/06/2017	test
MODIFIED	cities2/ac922	ebb23c91a3	930fb1a2a5c	anonymous		02/06/2017	test
REMOVED	cities2/0a779	424d103cc1	4f610e7e7ee	anonymous		01/30/2017	test
MODIFIED	cities2/0a779	4f610e7e7ee	cbe0fb74784	anonymous		01/30/2017	test
MODIFIED	cities2/0a779	cbe0fb74784	ca50a88bd1	anonymous		01/30/2017	test
MODIFIED	cities2/0a779	ca50a88bd1	e16ded0348	anonymous		01/30/2017	test
ADDED	cities2/0a779	a5b434ea19	47807f07b8	anonymous		01/30/2017	test
REMOVED	cities2/b475	47807f07b8	7d89b1997e	anonymous		01/30/2017	test
ADDED	cities2/9ade	964b65981a	1685a0ec2e	anonymous		01/20/2017	test
ADDED	cities2/52b7	1685a0ec2e	2bed7f47fee	anonymous		01/20/2017	test
MODIFIED	cities2/4dcb	2bed7f47fee	969d541f35	anonymous		01/19/2017	test
MODIFIED	cities2/4dcb	969d541f35	a454c6006d	anonymous		01/18/2017	test
MODIFIED	cities2/4dcb	a454c6006d	d6e789fb07f	anonymous		01/18/2017	test
MODIFIED	cities2/4dcb	d6e789fb07f	6745e1ba9a	anonymous		01/18/2017	test
ADDED	cities2/b475	711b0ceaefa	f61db213bf2	anonymous		01/18/2017	test
ADDED	cities2/ac922	f61db213bf2	12f61b0712c	anonymous		01/18/2017	test



Table View

Search All Fields

Q

Advanced Filters

Feature ID	FacilityID	FacilityNa	Tie
8a46c75a660	834	City of Gonzales Fire Rescue	0
8a46c75a664	1617	Dialysis Systems of Covington, LLC	0
8a46c75a717	59	Many Healthcare North	0
8a46c75a661	966	Christina Home	0
8a46c75a715	1300	Scottwood Home II	0
8a46c75a838	1288	Robinswood School	0

I

Page 1 of 59

1,460 features

80

Chapter 1. User Guide

View attribute statistics

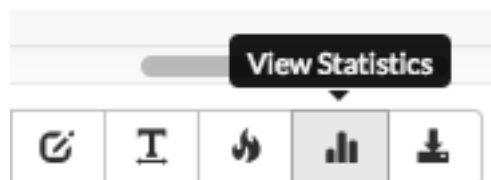
The View Statistics feature helps you visualize the data within an attribute by presenting it as either a bar graph or a pie chart. This information can be useful when you want to quickly see how data within a given attribute is distributed, or how many unique categories are represented within a single attribute.

1. Click the attribute title for the data you'd like to display.

Table View

FacilityNa	Tier	FacilityTy	FacilityTO
City of Gonzales Fire Rescue	0	5	EMS
Dialysis Systems of Covington, LLC	0	11	Dialysis
Many Healthcare North	0	1	Nursing Home

2. Click the *View Statistics* button to open the summary statistics chart.

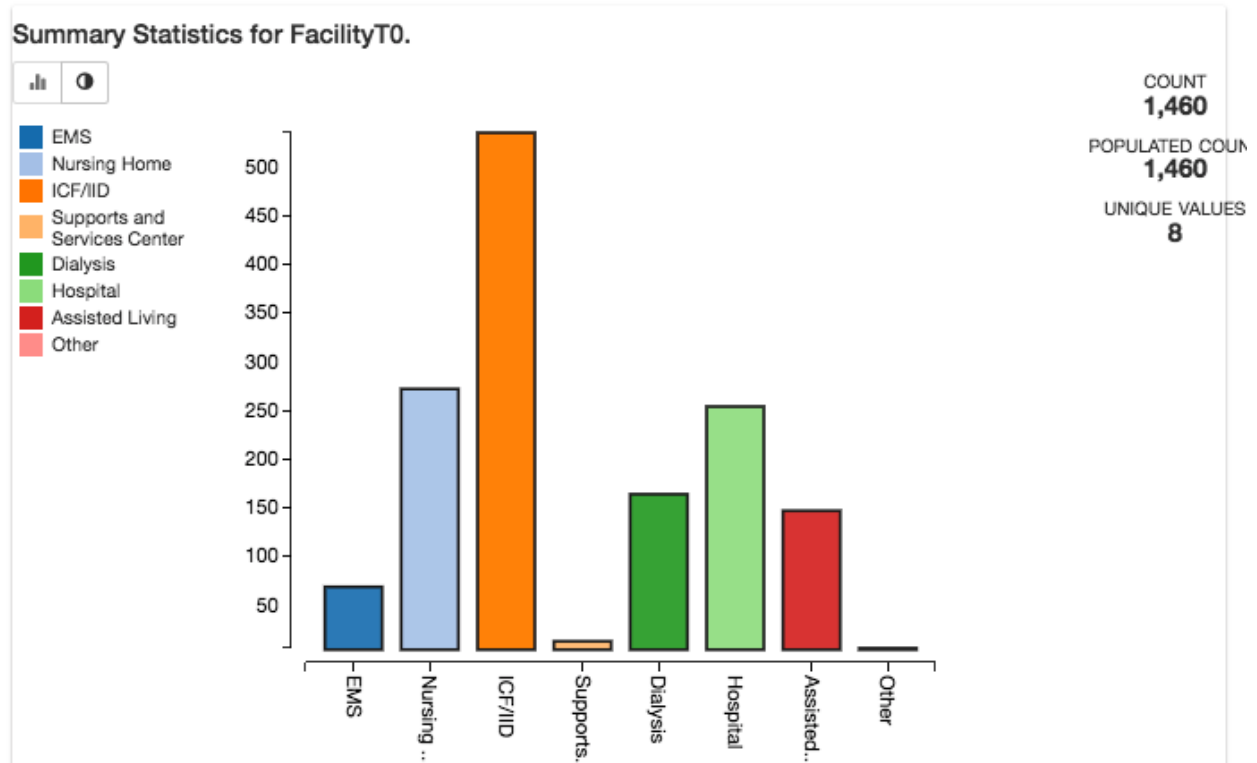


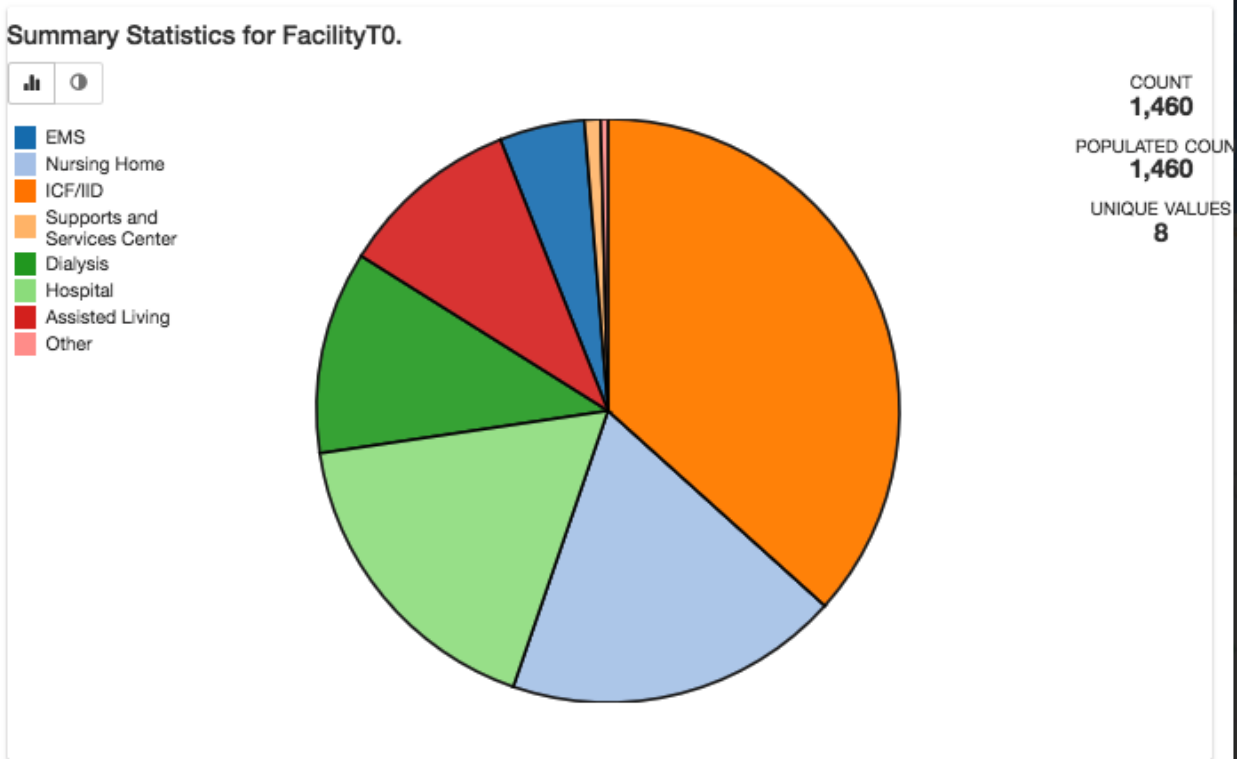
The attribute categories will be broken out into a bar graph, where each unique value in the field is represented by a single bar (or slice, if you are using a pie chart). The graph will show each of the unique values on the bottom axis, and the number of times that value is represented in the attribute table on the left side of the graph.

The View Statistics feature will give you a count of all of the features within the layer, the number of features with data populated in the attribute you are examining, and the number of unique values of the attribute itself.

Using the chart below as an example, you can see the layer has a total of 1,460 features. The FacilityTO attribute (used to create the graph) has data populating each of those features. There are eight unique values within the FacilityTO attribute field, and the bar represents the number of times that value was entered for the attribute.

3. Click the *Show Pie Chart* button to change the display to a pie chart.





Create a heat map

A heat map is a visual representation of your data, and allows you to see where your data is concentrated.

1. Select a point feature layer from your layers list.
2. Click the *Show heatmap* button to create a heat map layer.



On the heat map, red indicates a high area of data concentration.

In this example, the heat map indicates the areas where the Department of Health facilities are concentrated in Louisiana. The red areas are areas of higher population.

Search all attributes

The Search All Fields search examines all of the attributes in a layer, and returns all features that have your search term in *any* of its attribute fields. It is a simple search that will find results from any location.

1. Type a search term in the Search All Fields text box.

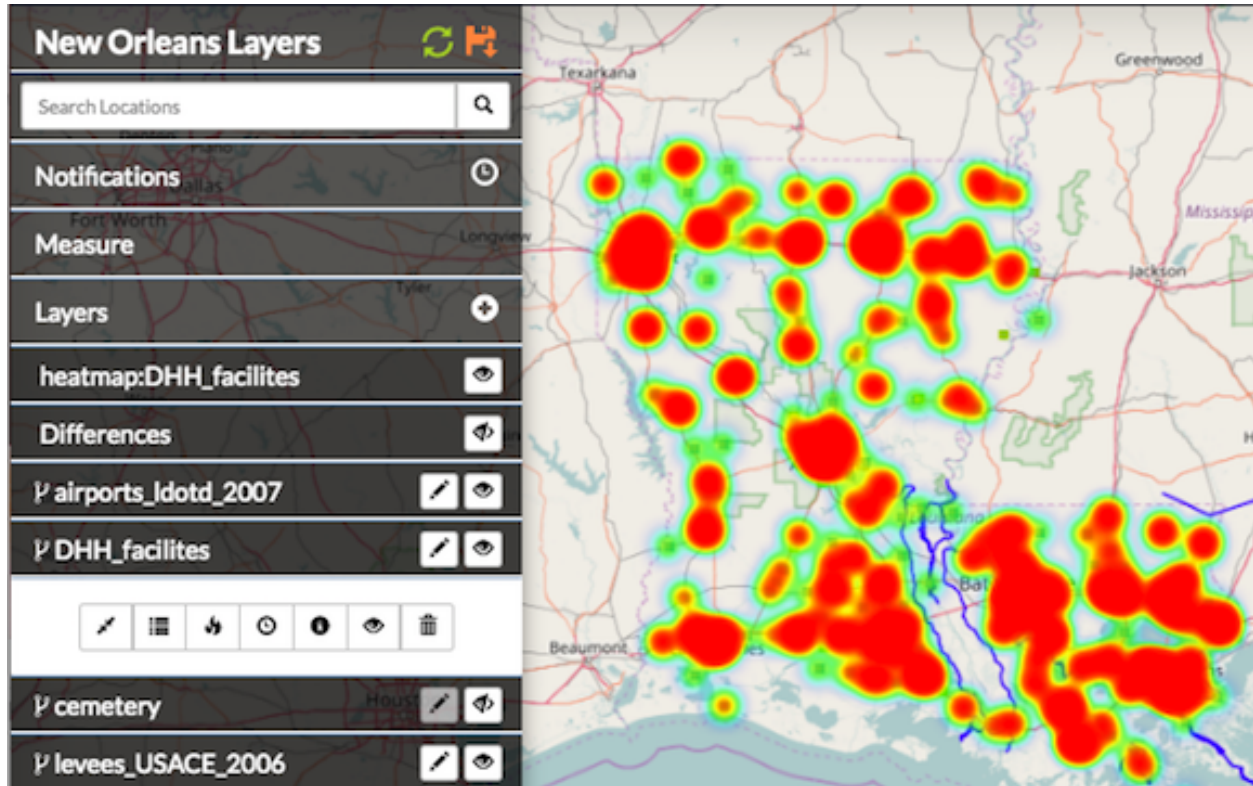


Table View

Search All Fields



Advanced Filters

2. Click the magnifying glass button. Your results will display in the attribute table.

NOTE: You can use the `*` or the `?` as wildcards if you aren't sure of the exact spelling of a search term. The `*` matches any number of characters. You can use the asterisk (`*`) anywhere in a character string. For example, **wh*** will find what, wheat, and whale, but not awhile or watch. The `?` will match a single character in a specific position. A search for **r?t** will return rat or rot, but not rest or retract. A search of a partial word, or an open ended search, will return results containing those characters. Typing **abr** will return abrams and candelabra. You may also use a combination of the two. To clear the search, click the magnifying glass or the **X** button.

Advanced filters

Advanced filters can help with your analysis by returning only the features you want to see. Whether you are looking for data matching a specific attribute, or events occurring within a certain time period, using an advanced filter will help you find what you need.

1. Select the *Advanced Filters* button in the Table View to open the Filter by Attribute options.
2. Select an attribute type, and click the drop down menu to select whether you would like to filter for an exact match, or a term that would be contained within the results.
3. Add your search term to the text box, and click the *Apply Filters* button. Repeat these steps to add additional filters, and refine your search even more.

Table View

Apply Filters

Clear Filters

Advanced Filters

Tier	FacilityTy	FacilityTO	
0	1	Nursing Home	Region 6
0	1	Nursing Home	Region 4

You are also able to filter attributes with dates or numbers by using either an exact match, or setting a range.

1. Click the drop down menu to select either **Exact Match** or **Range**. Type the date or number in the text box for an exact match, or select the dates/times using the calendar to establish a range.
2. Select the *Apply Filters* button.

Your results will display in the Table View. To clear your results, and return to the complete list of features, select the *Clear Filters* button. Click the *Advanced Filters* button again to return to **Search All Fields**.

Filter features using spatial filters

Spatial filters are used to select features from one layer based on their location in relation to features from another layer. The overlapping, or intersecting, data will be filtered in the attribute table, and can be used for additional analysis.

1. Click a feature on the map to select it. This will set the boundaries for the filter, and all of the returned data will be within this feature.
2. Click the filter button to **Use this feature in a spatial filter**. The selected feature will change colors.
3. Click a feature from the layer you want to filter, and click the *Show Table* button in the information window. This will open the attribute table for the entire layer. All of the features in this layer will display in the attribute table.
4. Click the *Spatial Filter* button in the Table View. This filters the data to display only the features intersecting the original feature.

Fig. 1.6: *Filter intersecting feature attributes*

You can expand your spatial filter by selecting additional features from your layer. The results will be displayed in your attributes table.

Fig. 1.7: *In the first example, there were 15 results using the spatial filter. By selecting additional features, there are now 42 results that intersect the layer.*

A spatial filter can also be created using an individual point with a given radius, allowing you to see how many features from a second layer fall within that radius.

1. Click a point on the map from the desired layer. This will be the base point. A blue circle will highlight the point.
2. Click the filter button to *Use this feature in a spatial filter*. The selected feature will change colors. Enter the desired radius in meters when prompted. Click the *Add Spatial Filter* button.
3. Click a feature from the layer you want to filter, and click the *Show Table* button in the information window. This will open the attribute table, which will include all layer features.
4. Click the *Spatial Filter* button in the Table View. This filters the data to display only the features within the radius on the original point.

This example shows how many Department of Health facilities are within a 4000 meter radius of central Lake Charles, LA. The spatial filter narrows the results down to 17 facilities out of 1458.

You can edit the geometry of an existing spatial filter to adjust the size of the filter area.

1. Select a spatial filter feature on the map, and click the *Edit Geometry* button. The selected feature will change colors and the Editing Geometry window will open.
2. A blue dot will appear over the point on the feature to be moved.
3. Click and drag the point to its new location. Repeat this process until all of the points have been moved to their new location.
4. Select the *Accept Feature* button to finish your edits, and apply the new shape to your spatial filter.

Delete a spatial filter

Once you are finished with your spatial filter, you may want to clear the results, and remove the filter from your map.

1. From the Table View of your filtered results, select the *Spatial Filter* button. This will clear the filter, and show all features within the layer. Close the Table View window.
2. Click on the feature you used in your spatial filter, and select the *Delete Feature* button. Confirm that you want to delete the feature.

Combine filters for deeper analysis

Combining a filter by attribute and a spatial filter allows you to dig even deeper into your data to provide better analysis. Once you have completed your spatial filter, you can use an **Advanced Filter** to drill down even further.

1. With an existing spatial filter on the map, open the table view of the layer you want to further filter. Your table will display all of the features in the layer.
2. Click the Advanced Filters button, and select the attribute you'd like to add to the spatial filter. Click the drop down menu to select the appropriate criteria.
3. Add your search term to the text box, and click the Apply Filters button. This will filter your layer to those features containing the attribute you want to apply to the spatial filter.
4. Click the Spatial Filter button to apply the spatial filter.

Not only will all of your results fall completely within the area you selected for your spatial filter, but they will also meet your advanced filter criteria.

Using the Department of Health layer from the previous example, we want to find out how many of the facilities within our 4000 meter radius are hospitals. We filtered all facility types (in the FacilityTO attribute) to those containing the word hospital. There were 254 results. Next, we applied the spatial filter. Our search helped us determine that out of 1458 features, four are hospitals within a 4000 meter radius of Lake Charles, LA.

Filter features by timeline

Features will often have a time attribute detailing the specific time an event has occurred, or when a feature has changed. This information can be displayed in two ways. Continuous time focuses on the changes of a singular feature, such as the path of a tornado, or the spread of disease. Temporal data also tracks multiple features in single locations over time, such as store openings, lightning strikes, or cell phones pinging cell towers. Temporal data can be displayed in Exchange either as a whole (the entire layer at once), or it can be played back, with the features populating the map as the time bar progresses.

Note: For this feature, the layer must have a date/time attribute. The time attribute is configured when the layer is uploaded. Please see the section on Configuring Time Attributes under Working with layers for more information.

1. Add a layer with the temporal data to the map. The playback options will display at the bottom of your map.
2. Click the *Play* button to begin the playback for the layer. The features will populate, and display the date/time along the timeline.
3. Select additional playback options. Playback options include:

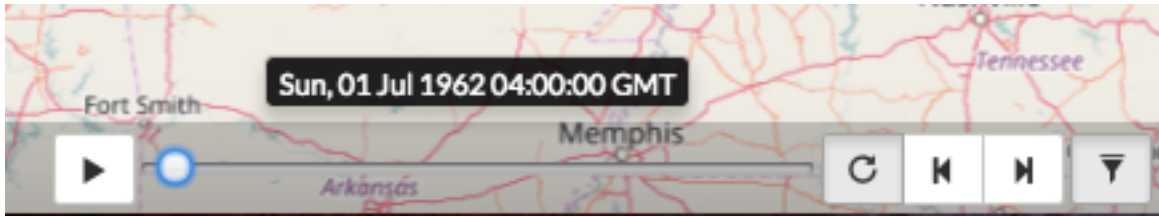


Fig. 1.8: A layer with temporal data will have a toolbar with playback options at the bottom of the map.

Play / Pause - Begins and stops the playback feature.

You can click and drag the time slider to display features at a specific time, or click on the red lines along the timeline. The spacing of the lines indicates the times on the layer.

Repeat - Loops the playback so it automatically begins once all of the temporal features have displayed.

Step Back / Step Forward - Displays the previous feature again or skips forward to the next feature.

4. Select the *Filter Features by Timeline* button to display all of the features at once, essentially turning off the playback.

Fig. 1.9: Filter features by timeline turns off the timeline feature for a layer.

Administration

Working with Registry

In Exchange, there are two primary types of data that can be added to Registry, a service or a single layer. A service is two or more layers being added to the map at the same time, whereas a single layer is just an individual layer. The form is the same for either one, but you will need to have a relatively good understanding of your data in order to successfully insert your new record.

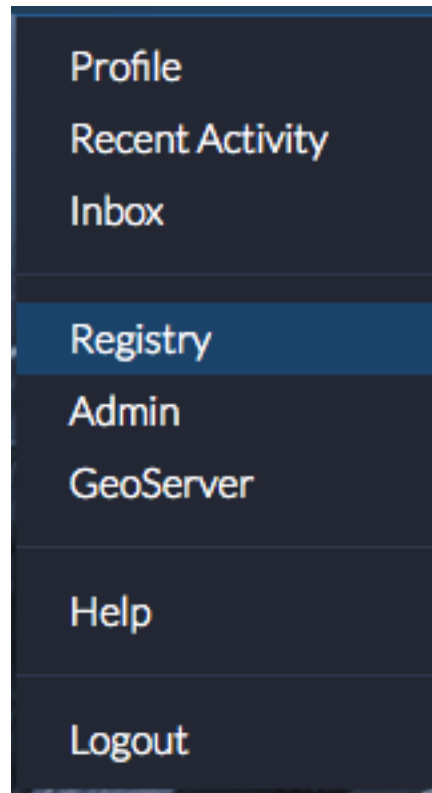
Currently, you can add the following services in Exchange:

- WMS - Web Map Service
- MapServer - ESRI Map Service
- ImageServer - ESRI Image Service

Add an individual record to CSW

Exchange users with administrator privileges are able to add [CSW](#) records through their Exchange webpage.

1. Click on your user name in the toolbar. Select **Registry** from the drop-down menu to open the record form.
2. A list of all items registered in Exchange will open, displaying their status as Complete, Unknown, Pending, or Error. Click the *Register a new Record* button in the top right corner to add a new record.



Click the *Register a new Record* button in the top right corner to add a new record.

3. Complete the form with all of the necessary information.

Service URL - This is the URL address for the endpoint you are trying to add.

Geoserver Example: <https://mapstory.org/geoserver/geonode/wms>

ESRI MapServer Example: https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Bahamas_Latest_Damage_Assessments/MapServer

Note: Entering a MapServer url will auto-populate the available services such as WMSServer, WFSServer, Feature-Server.

ESRI MapServer WMSServer Example: https://ngamaps.geointapps.org/arcgis/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer/wmsserver

ESRI ImageServer Example: https://gis.ngdc.noaa.gov/arcgis/rest/services/bag_hillshades/ImageServer

Title - This field should populate automatically. The title should be related to the data, but should also be unique enough to find when performing a search. You can change the title if you don't want what auto-filled.

Layer Identifier - For ESRI MapServer Services, this field will be populated automatically; however, for any other service type, the name of the layer is required for this field.

Category - Select a category from the list that best describes your data.

Abstract - The abstract should provide a brief description of the data being added.

Agency - Where did the information come from? This should also auto-populate. If Exchange is unable to detect who the data belongs to from the endpoint, add the creator/agency information.

Contact Email - Please add your email address here.

Registered Items

[Register a new Record](#)

Title	URL	STATUS	USER
Apple	https://mapstory.org/geoserver/geonode/wms	Complete	admin
Layers 1234	https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer	Complete	admin
Layers 8	http://maps.dggs.alaska.gov/arcgis/rest/services/pub_thumbs/mp141/MapServer	Complete	admin
Shipping and Hydrography	https://ngamaps.geointapps.org/arcgis/rest/services/Arctic_Summit/Shipping_and_Hydrography/MapServer	Complete	admin
Quaternary faults and folds in Alaska	http://maps.dggs.alaska.gov/arcgis/rest/services/pub_thumbs/mp141/MapServer	Error	admin
Layers	https://ngamaps.geointapps.org/arcgis/rest/services/Arctic_Summit/Shipping_and_Hydrography/MapServer	Unknown	admin
Boundless CD	https://demo.mapstory.org/geoserver/geonode/wms	Complete	admin
DC Metro Bus Lines	http://maps2.dcgis.dc.gov/dcgis/rest/services/DCGIS_DATA/Transportation_WebMercator/MapServer	Complete	admin
Hurricane_Matthew CD	https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer	Complete	admin
Layers Noon	https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer	Complete	admin
Minneapolis_Contours	https://services.arcgis.com/a1SMGVsC7QIRK1kZ/ArcGIS/rest/services/Minneapolis_Contours/FeatureServer	Complete	admin
PWStreetPavementMgmt	https://services.arcgis.com/a1SMGVsC7QIRK1kZ/ArcGIS/rest/services/PWStreetPavementMgmt/FeatureServer	Complete	admin
VPM Web Service	http://maps2.dcgis.dc.gov/dcgis/rest/services/DCGIS_APPS/vpmwebservices/MapServer	Complete	admin
Layers	https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer	Error	admin
Layers	https://ngamaps.geointapps.org/arcgis/rest/services/Arctic_Summit/Shipping_and_Hydrography/MapServer	Error	admin
Layers - blah cbt	https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer	Error	admin
Layers	https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer	Pending	admin
Test	https://mapstory.org/geoserver/geonode/wms	Pending	admin
Layers	https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer	Unknown	admin
Layers	http://maps2.dcgis.dc.gov/dcgis/rest/services/DCGIS_APPS/Cultural_Assets/MapServer	Unknown	admin

Page 1 of 5. [Next](#)

Contact Phone - Please add a contact phone number here.

Gold - Select this checkbox if the data is NGA-approved content.

Additional services types (also called references) can be added by selecting the type from the drop down menu, and adding the URL. Service types discovered from the service URL are also listed at the top of the form.

4. Click the *Submit Record* button to nominate record.

Note: Contact your Exchange administrator if the status does not display as Complete. They will need to take a look at your record via Django administration. Please see step 5 in the record administration section below.

For additional examples of records that have been successfully added in Exchange, please check out: [CSW Examples](#)

Verify the record

Once you submit your record, you will be directed to the Registered Items page. To verify the record status in Registry, you can search for it using the Exchange search field at the top of the page, or use the Add Layer function from your map.

CSW Record Administration

Add a CSW record

Records can also be added through the Django administration site. The form there requires you to add all data manually, and does not have an auto-populate function.

1. Click on your user name in the toolbar. Select **Admin** from the drop-down menu to open the record form.
2. Click **Add** next to CSW Records from the Core menu on the Django administration site.
3. Complete the form with all of the necessary information. All of the fields on the form in **bold** are mandatory.

User - Select a user from the list to be the owner of the record.

Classification (optional) - Unless the data resides on a classified system, this will remain blank/UNCLASSIFIED.

Title - The title should be related to the data, but should also be unique enough to find when performing a search for data.

Modified - This field is filled in by default, but can be edited to match what is true for the data.

Agency - Where did the information come from?

Record Type - The type field denotes what kind of data is being added.

For the services listed below, you would use the following information:

- ESRI map server - ESRI:ArcGIS:MapServer
- ESRI image server - ESRI:ArcGIS:ImageServer
- WMS Services - dataset

Register New Record

Below are the additional service types discovered from service url.

KmlServer

WMSServer

MapServer

Service Url:

e.g. http://example.com/ArcGIS/rest/services/Specialty/ESRI_StateCityHighway_USA/MapServer

Title:

Category:

Abstract:

Agency:

Contact Email:

Contact Phone:

Gold:



Service Type	Url	Delete
<input type="text" value="KML"/>	<input type="text" value="http://maps2.dcgis.dc.gov/dcgis/rest/service:"/>	remove
<input type="text" value="WMS"/>	<input type="text" value="http://maps2.dcgis.dc.gov/dcgis/services/DDOT/WazeData/MapServer"/>	remove
<input type="text" value="MapServer"/>	<input type="text" value="http://maps2.dcgis.dc.gov/dcgis/rest/service:"/>	remove

Service Type	Url	Delete
KML	http://maps2.dcgis.dc.gov/dcgis/rest/service!	remove
MapServer	http://maps2.dcgis.dc.gov/dcgis/services/DD	remove
FeatureServer	http://maps2.dcgis.dc.gov/dcgis/rest/service!	remove
ImageServer		remove
JSON		
KML		
RSS		
SHAPE		
SOAP		
WCS		
WFS		
CSW		
WMS		
WPS		

CORE

CSW Records

+ Add

✎ Change

Add CSW Record

User:

admin



Classification:

Title:

Modified:

2017-06-07

Today |



Agency:

Record type:

Alternative:

Alternative - An ESRI service will number each of the layers (starting with zero), and when adding data from a service, the alternative field points to the id individual layer to be pulled from that server. For GeoServer OGC services, the value for the Alternative field can be pulled from the layer name which is a string that does not contain spaces. If you leave the space blank, all of the associated layers will be added.

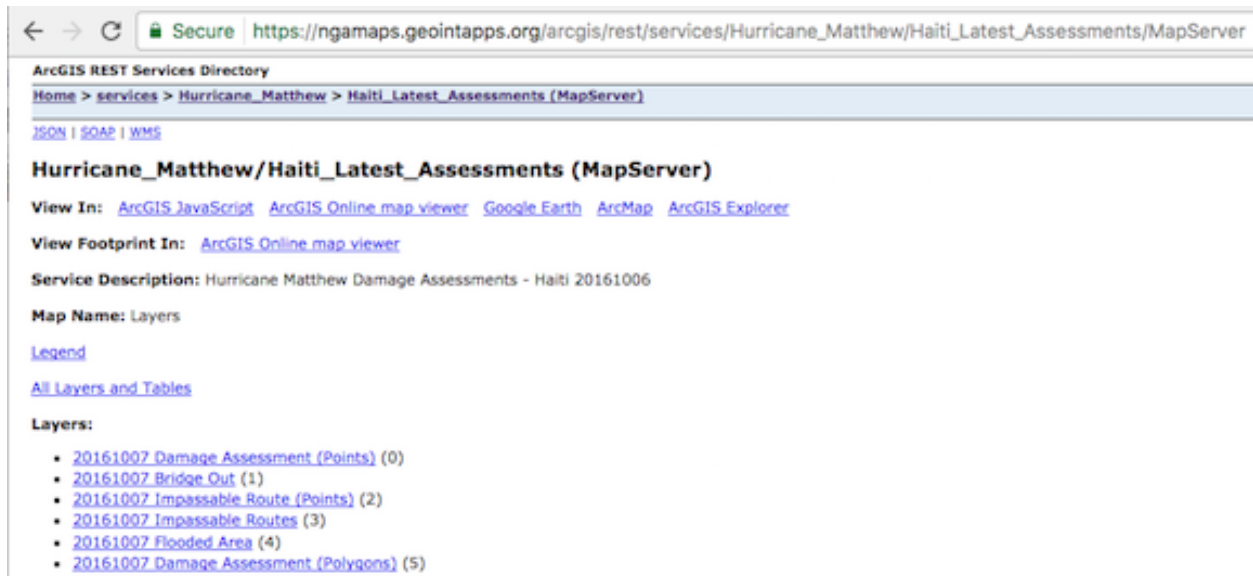


Fig. 1.11: List of layers with ID's for the MapServer. The layer ID for Bridge Out is '1' as indicated by the value in the parenthesis.

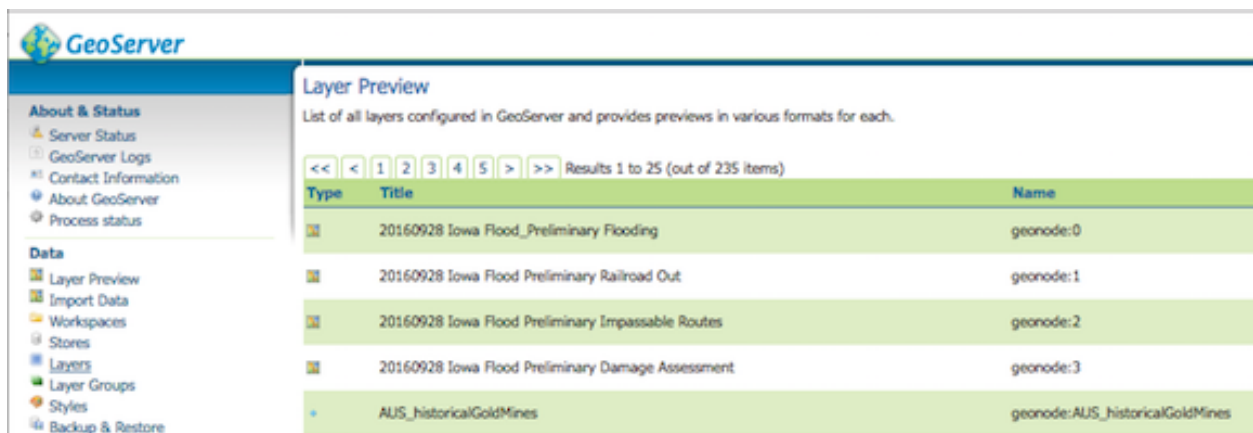


Fig. 1.12: Geoserver typically follows the format of <workspace>:<name>. The <name> portion is all that's needed for the Alternative field.

Abstract - The abstract should provide a brief description of the data being added.

Service Endpoint - This is the URL address for the endpoint you are trying to add.

Geoserver Example: `https://mapstory.org/geoserver/geonode/wms`

ESRI MapServer Example: `https://ngamaps.geointapps.org/arcgis/rest/services/Hurricane_Matthew/Bahamas_Latest_Damage_Assessments/MapServer`

Service Endpoint:	<input type="text"/>
Relation:	<input type="text"/>
Record format:	<input type="text"/>

ESRI MapServer WMSserver Example: https://ngamaps.geointapps.org/arcgis/services/Hurricane_Matthew/Haiti_Latest_Assessments/MapServer/wmsserver

ESRI ImageServer Example: https://gis.ngdc.noaa.gov/arcgis/rest/services/bag_hillshades/ImageServer

Relation - This field is not currently used. It is used to associate records to one another

Record Format - This can vary depending on the kind of data being added. When registering a WMS service, format must be set to OGC:WMS.

Bbox upper corner:	<input type="text" value="85.0 180"/>
Bbox lower corner:	<input type="text" value="-85.0 -180"/>
Contact email:	<input type="text"/>
Contact phone:	<input type="text"/>
<input type="checkbox"/> Gold	
Category:	<input type="text" value="-----"/>
Status message:	<div></div>
Status:	Unknown

Bounding Box coordinates: Upper Corner - The bounding box defaults to an area that will cover what is being added. It is recommended to leave the default settings (85.0 180, -85.0 -180) unless you have specific requirements.

Bounding Box: Lower Corner - Same as above.

Contact Email - Please add your email address here.

Contact Phone - Please add a contact phone number here.

Gold - Select this checkbox if the data is NGA-approved content.

Category – Select a category from the drop-down menu.

4. Once you have completed the form, click the Save button. You will be returned to the CSW record page, and notified that your record was added successfully.
5. A record added through the Django administration site will display the status as **Unknown**. Click the checkbox next to your record, and select **Register Selected CSW Record** from the Action menu. Click the *Go* button.

Select CSW Record to change

Search

1 of 9 selected

Action	TI	CATEGORY	STATUS
<input checked="" type="checkbox"/>	Hurricane_Matthew CONUS_Latest_Assessments	Intelligence	Unknown
<input type="checkbox"/>	Image Server	Human Geography	Complete

Delete a record

1. Select **CSW Records** from the CORE menu on the Django administration site.
2. Click the checkbox next to the record(s) to be deleted.
3. Select **Delete selected CSW Records** from the Action menu, and click the :guilabel'Go' button.
4. Click the *Yes, I'm sure* button to verify your selection.