

USER MANUAL

Development of an Enterprise2Map Javascript Library

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Overview



In this document, we present a User Manual as to how to use the JavaScript Library that we created during our Lab Session of EIS during the SS 2016.

In this Lab, we created a JavaScript Library which can plot Enterprise Data on Map with a detailed Geometric depth.

How it Works

The user has to upload the Enterprise Data in Turtle Format which complies with our Ontology requirements. We have added a sample working Turtle File which can be used for consultation.

Sample Ontology

```
eis:Plant a rdfs:Class.
eis:Polygon a rdfs:Class.
eis:Building a rdfs:Class.
eis:Machine a rdfs:Class.

eis:hasPlant rdfs:type owl:ObjectProperty;
             rdfs:domain vivo:Company;
             rdfs:range eis:Plant.

eis:headquarters rdfs:type owl:DatatypeProperty;
                 rdfs:domain vivo:Company;
                 rdfs:range xsd:string.

eis:wasBuilt rdfs:type owl:DatatypeProperty;
             rdfs:domain vivo:Company unionOf eis:Plant unionOf lgdo:Factory unionOf eis:Building;
             rdfs:range xsd:date.
```

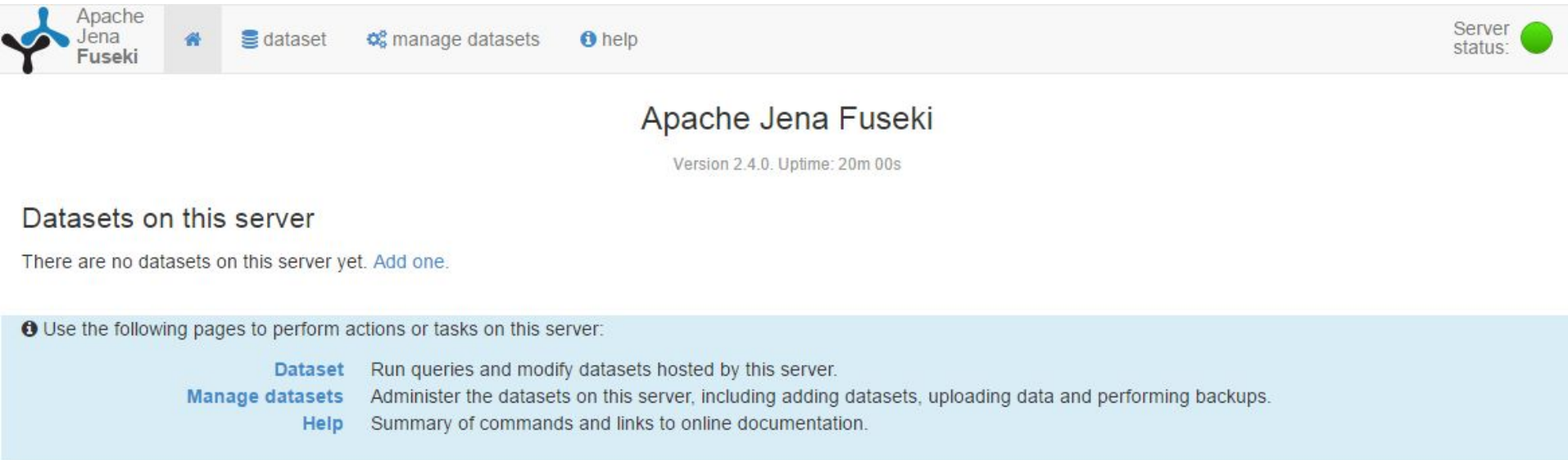
Requirements

- Input Data should be in Turtle Format in a specific format.
- Angular JS.
- Leaflet.
- Apache Jena Fueski.

How to Use

Steps:

1. Start Apache Jena and open on a Browser.
(Go to : <http://localhost:3030/index.html>)



Apache Jena Fuseki

Version 2.4.0. Uptime: 20m 00s

Datasets on this server

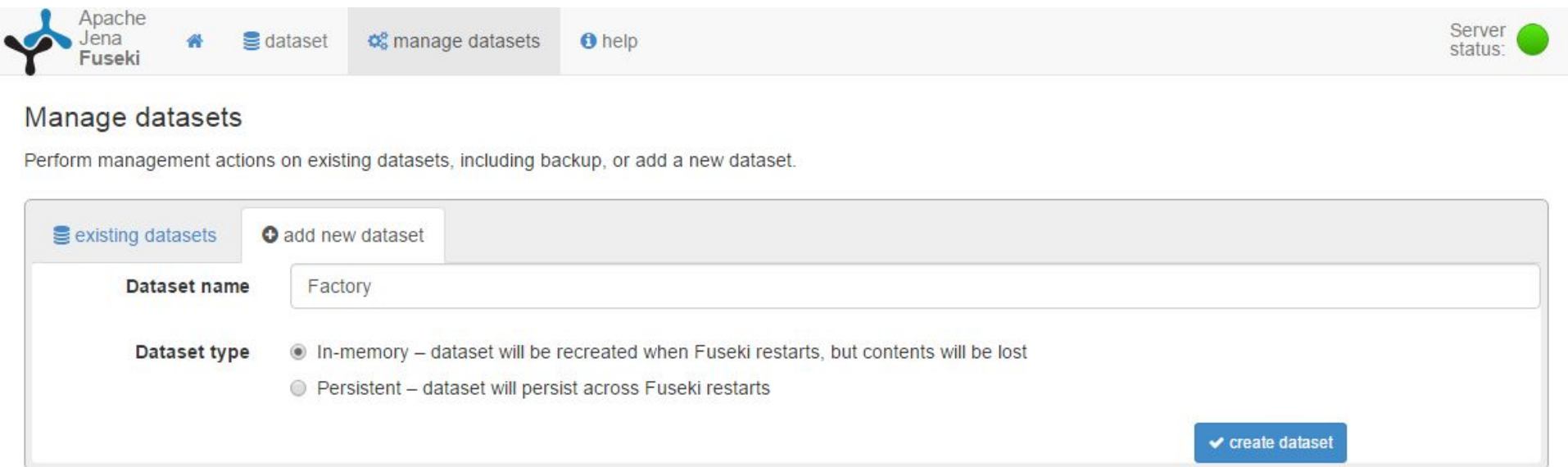
There are no datasets on this server yet. [Add one.](#)

Use the following pages to perform actions or tasks on this server:

Dataset	Run queries and modify datasets hosted by this server.
Manage datasets	Administer the datasets on this server, including adding datasets, uploading data and performing backups.
Help	Summary of commands and links to online documentation.


How to Use

2. Create a Dataset.



Apache Jena Fuseki

dataset manage datasets help

Server status: 

Manage datasets

Perform management actions on existing datasets, including backup, or add a new dataset.

existing datasets + add new dataset

Dataset name

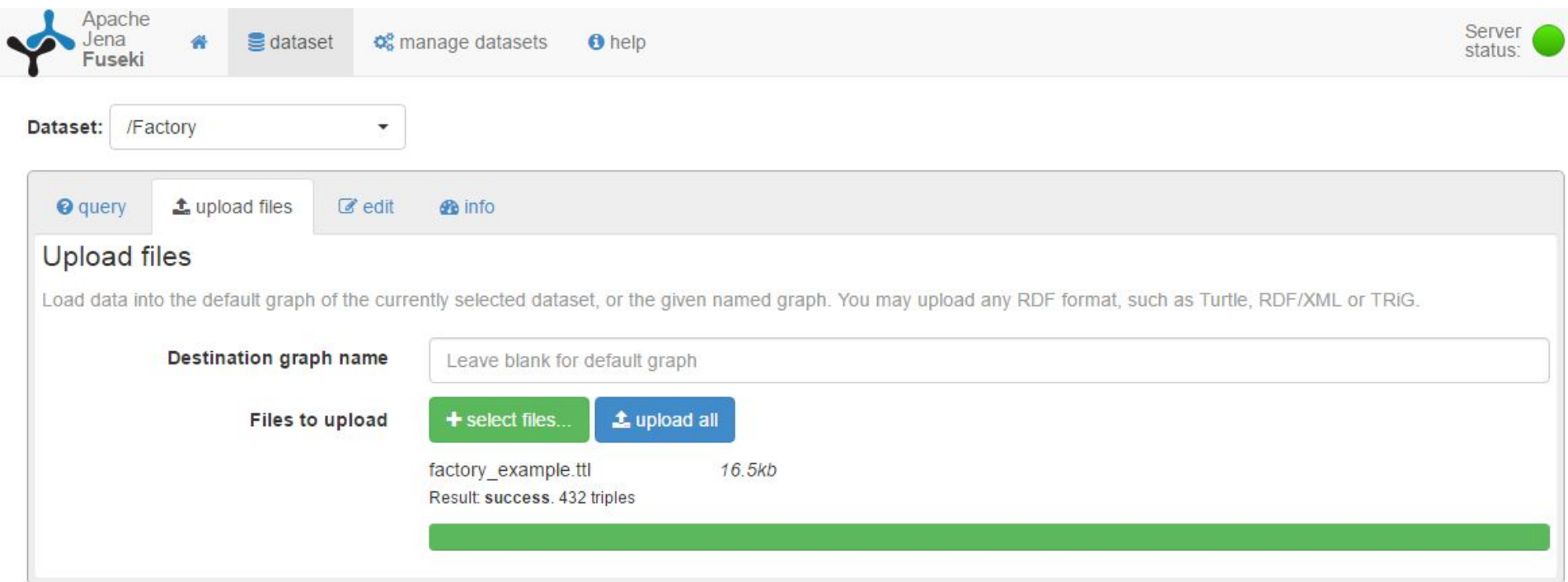
Dataset type

- ☒ In-memory – dataset will be recreated when Fuseki restarts, but contents will be lost
- ☐ Persistent – dataset will persist across Fuseki restarts

☒ create dataset

How to Use

3. Upload Turtle File.



The screenshot displays the Apache Jena Fuseki web interface. At the top, the navigation bar includes the Apache Jena Fuseki logo, a home icon, a 'dataset' tab, a 'manage datasets' link, and a 'help' link. The 'Server status' is indicated as 'online' with a green dot. Below the navigation bar, the 'Dataset:' dropdown is set to '/Factory'. The main content area features a tabbed interface with 'query', 'upload files', 'edit', and 'info'. The 'upload files' tab is active, showing the 'Upload files' section. This section includes a description: 'Load data into the default graph of the currently selected dataset, or the given named graph. You may upload any RDF format, such as Turtle, RDF/XML or TRIG.' Below this, the 'Destination graph name' field is set to 'Leave blank for default graph'. The 'Files to upload' section shows a file named 'factory_example.ttl' with a size of '16.5kb'. The upload result is 'success. 432 triples', and a green progress bar is visible at the bottom of the upload area.

Apache Jena Fuseki

dataset manage datasets help

Server status: ●

Dataset: /Factory

query upload files edit info

Upload files

Load data into the default graph of the currently selected dataset, or the given named graph. You may upload any RDF format, such as Turtle, RDF/XML or TRIG.

Destination graph name: Leave blank for default graph

Files to upload

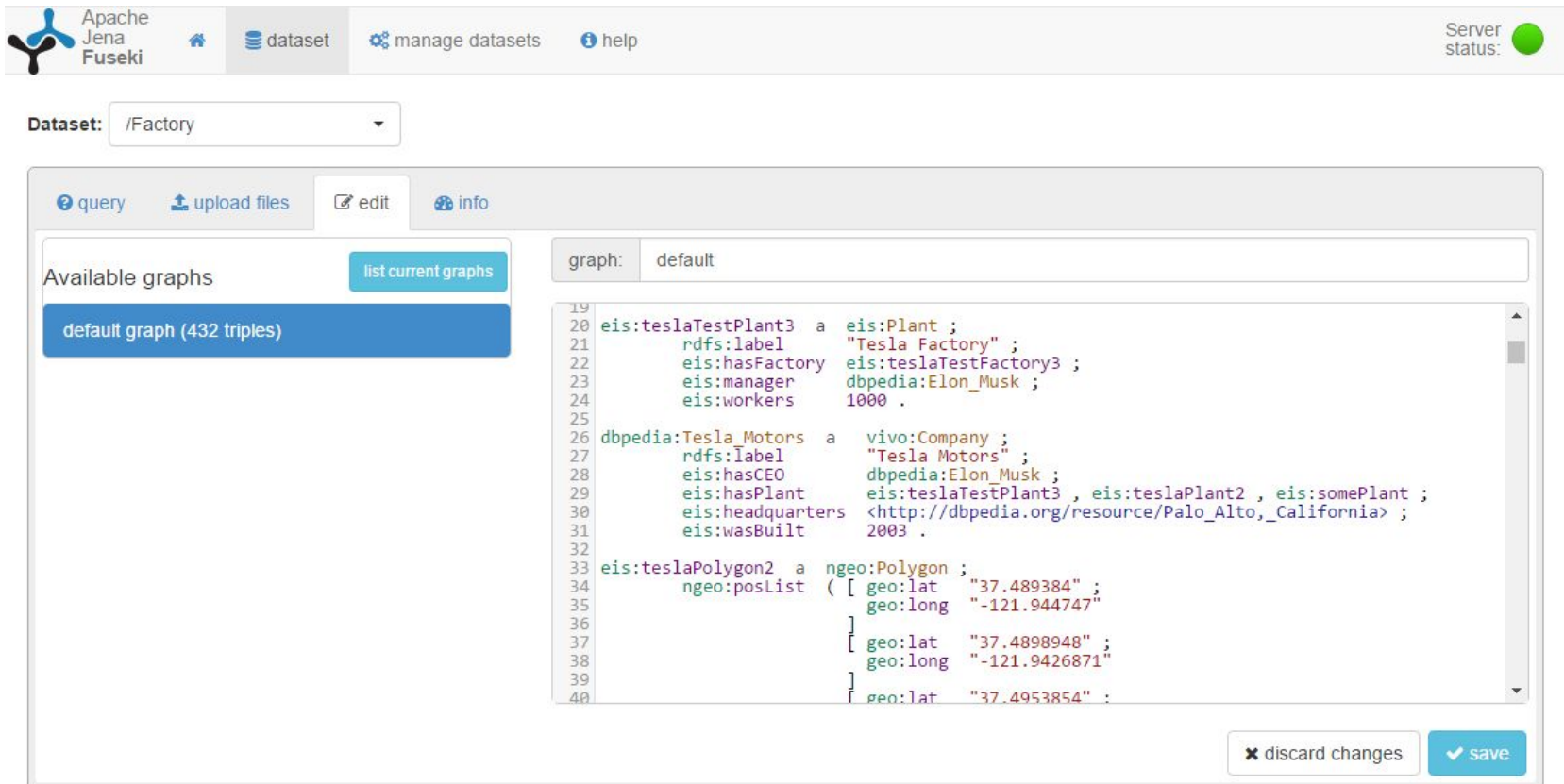
+ select files... upload all

factory_example.ttl 16.5kb

Result: success. 432 triples

How to Use

4. View the Uploaded Turtle File.



The screenshot shows the Apache Jena Fuseki web interface. At the top, there is a navigation bar with the Apache Jena Fuseki logo, a home icon, a 'dataset' tab, a 'manage datasets' link, and a 'help' link. On the right, the 'Server status' is indicated by a green dot. Below the navigation bar, a 'Dataset:' dropdown menu is set to '/Factory'. The main content area has a tabbed interface with 'query', 'upload files', 'edit', and 'info' tabs. The 'query' tab is active, showing a list of 'Available graphs' on the left, including 'default graph (432 triples)'. A 'list current graphs' button is next to this list. On the right, the 'graph:' dropdown is set to 'default', and a large text area displays the Turtle file content. The content includes definitions for `eis:teslaTestPlant3`, `dbpedia:Tesla_Motors`, and `eis:teslaPolygon2`. At the bottom right, there are buttons for 'discard changes' and 'save'.

Dataset: /Factory

query upload files edit info

Available graphs

list current graphs

default graph (432 triples)

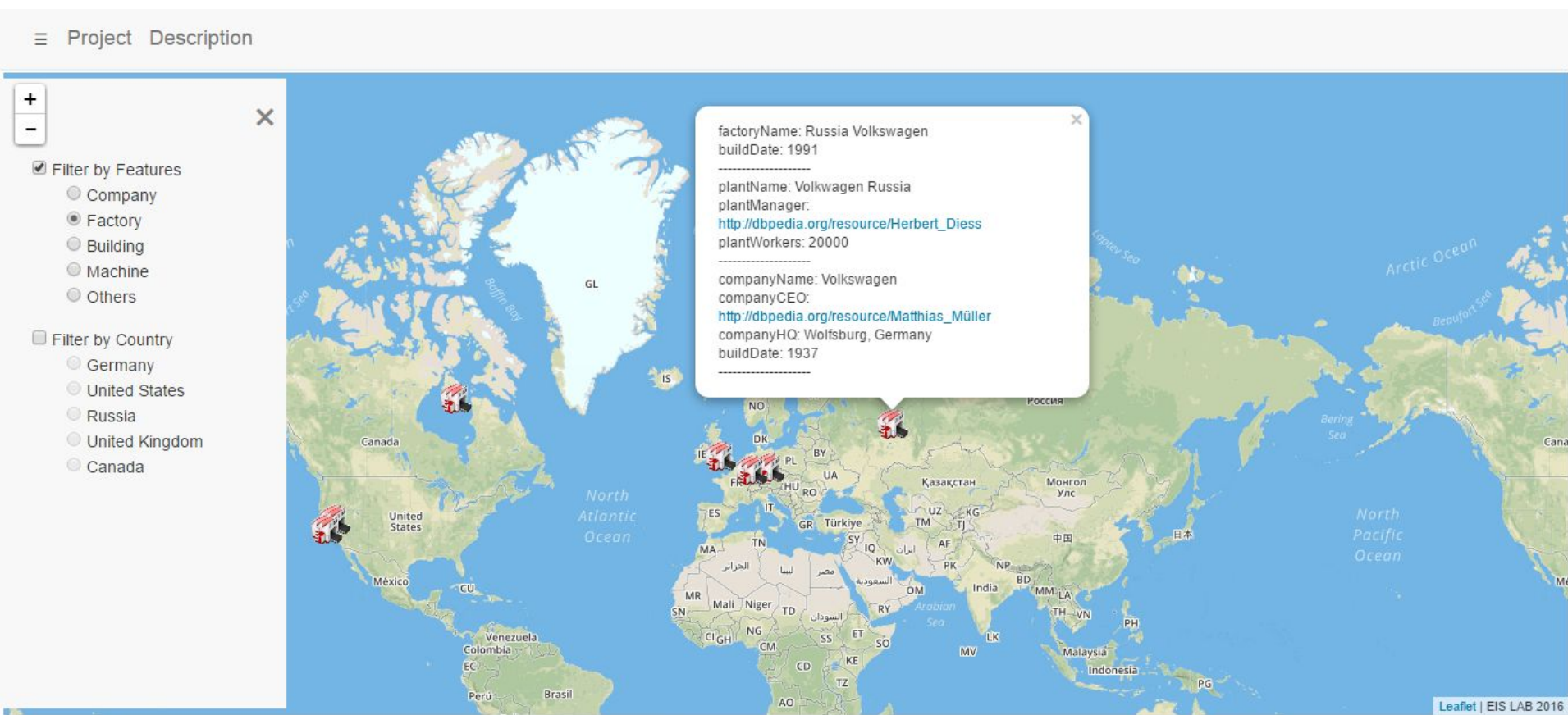
graph: default

```
19
20 eis:teslaTestPlant3 a eis:Plant ;
21   rdfs:label        "Tesla Factory" ;
22   eis:hasFactory    eis:teslaTestFactory3 ;
23   eis:manager       dbpedia:Elon_Musk ;
24   eis:workers       1000 .
25
26 dbpedia:Tesla_Motors a vivo:Company ;
27   rdfs:label        "Tesla Motors" ;
28   eis:hasCEO        dbpedia:Elon_Musk ;
29   eis:hasPlant      eis:teslaTestPlant3 , eis:teslaPlant2 , eis:somePlant ;
30   eis:headquarters  <http://dbpedia.org/resource/Palo_Alto,_California> ;
31   eis:wasBuilt      2003 .
32
33 eis:teslaPolygon2 a ngeo:Polygon ;
34   ngeo:posList ( [ geo:lat "37.489384" ;
35                   geo:long "-121.944747"
36                   ]
37                 [ geo:lat "37.4898948" ;
38                   geo:long "-121.9426871"
39                   ]
40                 [ geo:lat "37.4953854" ;
```

✕ discard changes ✓ save

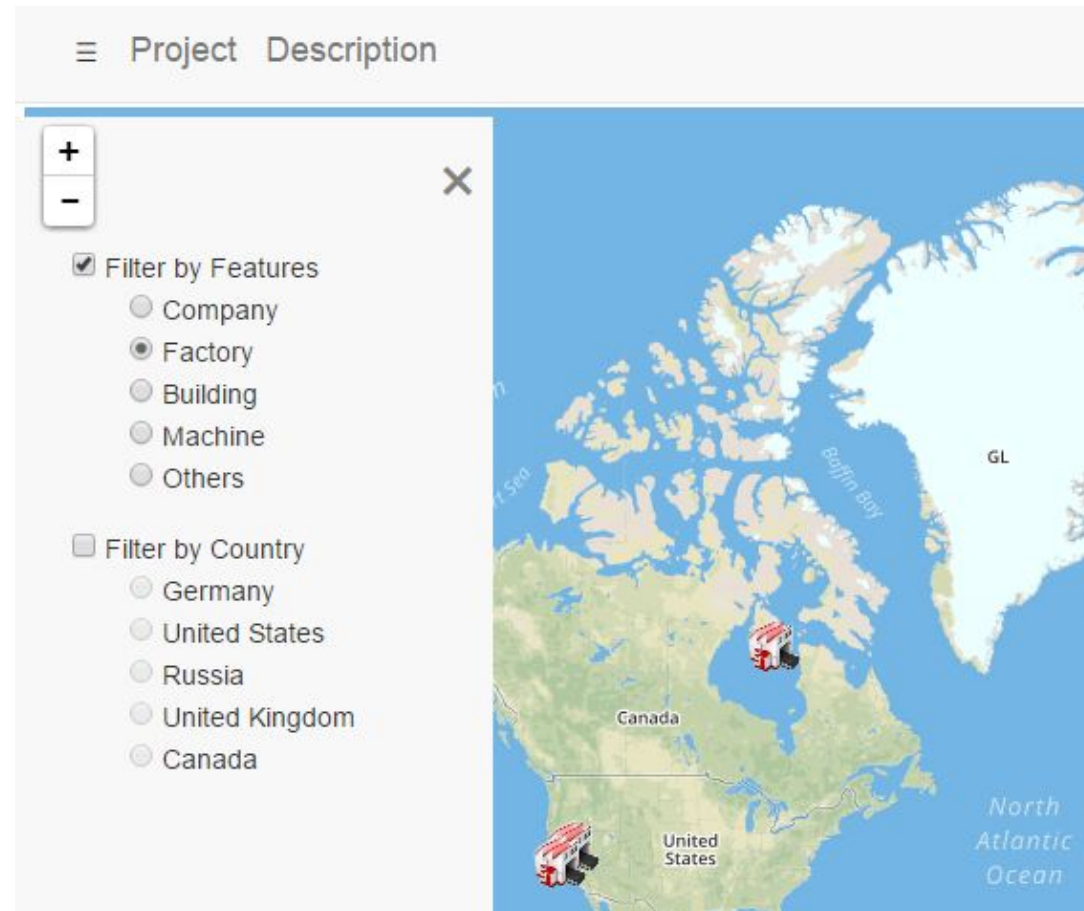
How to Use

5. Open “test.html” File on a Browser.



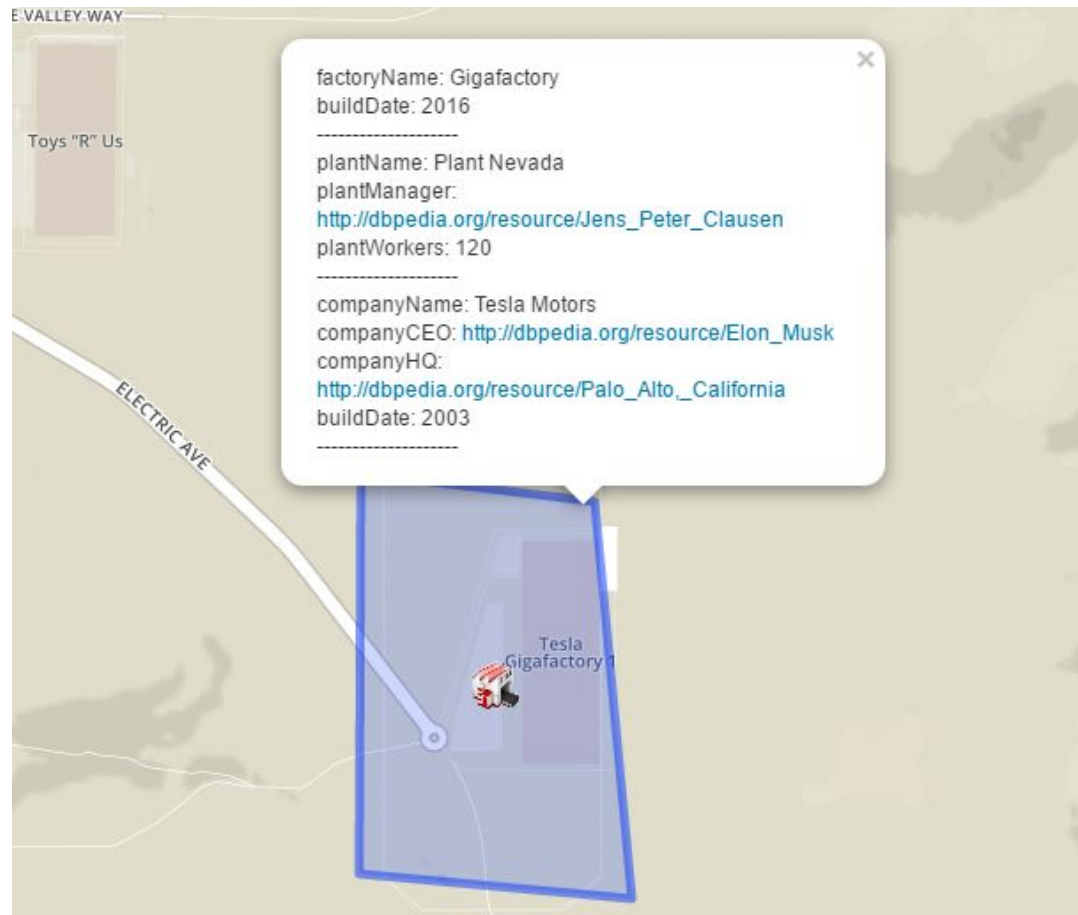
How to Use

6. Filtering is enabled on the basis of different features and also on basis of Country.

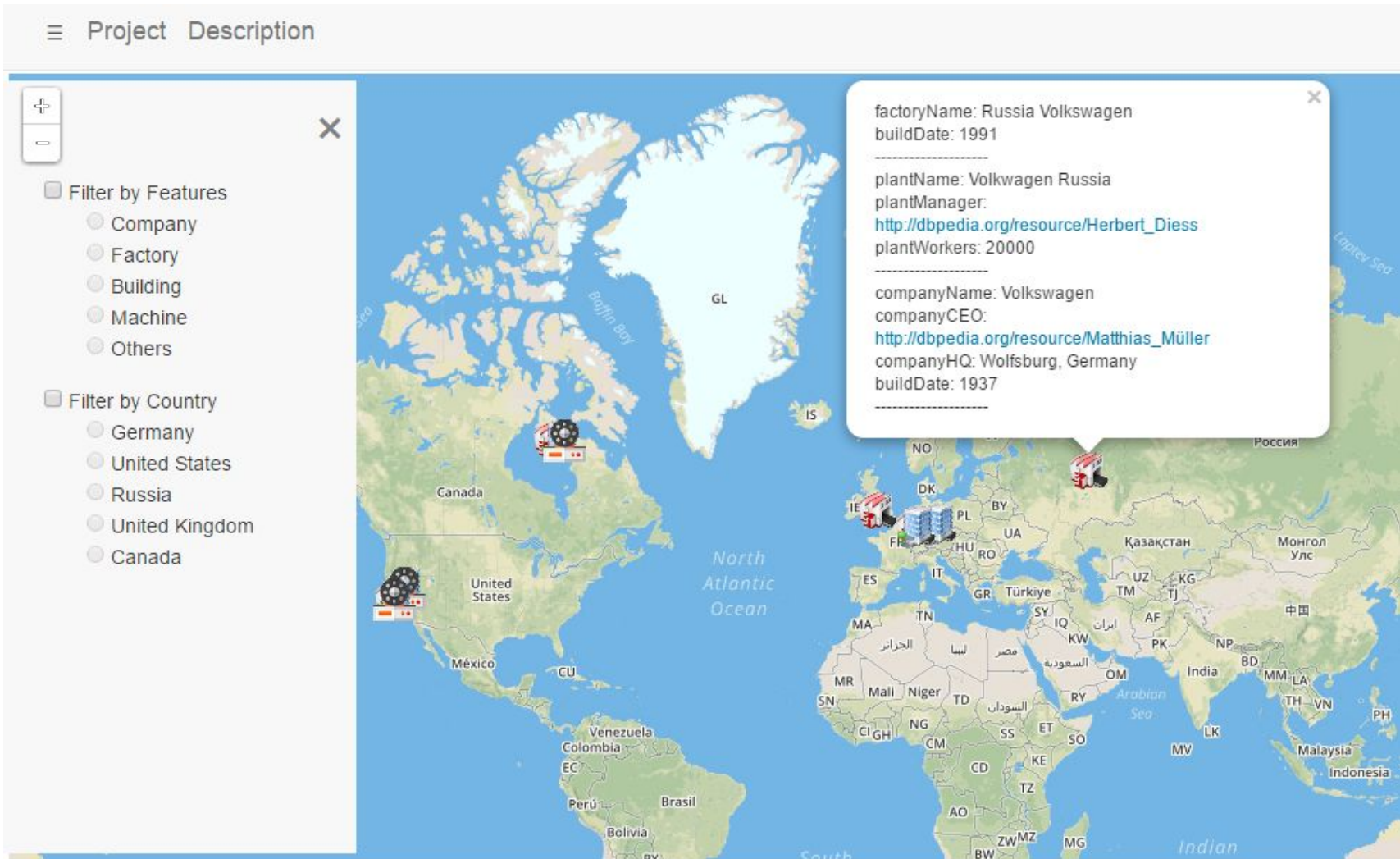


How to Use

7. Zoom Functionality is enabled and we can zoom to a great Geometric Detail.



Complete View





universität**bonn**

A word cloud of the phrase "thank you" in various languages, centered around the English words "thank" and "you". The words are arranged in a circular pattern, with "thank" and "you" being the largest and most prominent. Other languages include German (danke, dank), French (merci, merci), Italian (grazie, grazie), Spanish (gracias, gracias), Dutch (dank u, dank u), Polish (dziękuję, dziękuję), Czech (děkuji, děkuji), Russian (спасибо, спасибо), Ukrainian (дякую, дякую), Greek (ευχαριστώ, ευχαριστώ), Korean (감사합니다, 감사합니다), Japanese (ありがとう, ありがとう), Chinese (谢谢, 谢谢), Vietnamese (cảm ơn, cảm ơn), Thai (ขอบคุณ, ขอบคุณ), Indonesian (terima kasih, terima kasih), Malay (terima kasih, terima kasih), Tagalog (salamat, salamat), Filipino (salamat, salamat), Hindi (धन्यवाद, धन्यवाद), Bengali (তাসাকে ধন্যবাদ, তাসাকে ধন্যবাদ), Tamil (தனக்கே நன்றி, தனக்கே நன்றி), Telugu (ధన్యవాదం, ధన్యవాదం), Kannada (ಧನ್ಯವಾದ, ಧನ್ಯವಾದ), Malayalam (ദന്യവേദം, ദന്യവേദം), Sinhala (තෙතමන, තෙතමන), Burmese (ကျေးဇူးတင်, ကျေးဇူးတင်), Vietnamese (cảm ơn, cảm ơn), Thai (ขอบคุณ, ขอบคุณ), Indonesian (terima kasih, terima kasih), Malay (terima kasih, terima kasih), Tagalog (salamat, salamat), Filipino (salamat, salamat), Hindi (धन्यवाद, धन्यवाद), Bengali (তাসাকে ধন্যবাদ, তাসাকে ধন্যবাদ), Tamil (தனக்கே நன்றி, தனக்கே நன்றி), Telugu (ధన్యవాదం, ధన్యవాదం), Kannada (ಧನ್ಯವಾದ, ಧನ್ಯವಾದ), Malayalam (ദന്യവേദം, ദന്യവേദം), Sinhala (තෙතමන, තෙතමන), Burmese (ကျေးဇူးတင်, ကျေးဇူးတင်).