**GeoNode Importer API**

Geonode is a web-based application and platform for developing geospatial information systems (GIS). It is designed to be extended and modified, and can be integrated into existing platforms.

The Importer Rest API is one location where the system can be extended to support a business need or mission.

To start with the importer Rest API, run the following command from curl to verify the environment is up and running.

**curl -u admin:geoserver -XPOST -H "Content-type: application/json" -d @import.json "http://192.168.10.221/geoserver/rest/imports"**

Once this command completes a blank output should occur in the window.

**Warning: Couldn't read data from file "import.json", this makes an empty POST.**

**A JSONObject text must begin with '{' at character 0 of**

This verifies the application is running. If the application is not running refer to:

https://github.com/vtadrones/geoshape-vagrant/blob/master/README.md

Following are example REST calls to make to the importer API to perform different tasks that allow data to be setup or extended.

1. vi import.json
2. copy the contents below and paste into import.json then save the file.
3. {
4. "import": {
5. "targetWorkspace": {
6. "workspace": {
7. "name": "tasmania"
8. }
9. },
10. "data": {
11. "type": "directory",
12. "location": "C:/data/tasmania"
13. }
14. }
15. }

Run **curl -u admin:geoserver -XPOST -H "Content-type: application/json" -d @import.json "http://192.168.10.221/geoserver/rest/imports"**

If the import is a success you will see no output below the command execution in the window.

There are several modifications that can be made to the json file to support various use cases. This video will cover multipoint, line and polygon features. We will also cover adding integers, text and photos to the file.

Examples of the JSON files are located at https://github.com/vtadrones/geoshape-vagrant/blob/master/restImporterExamples

The first example is a multipoint example.

{

"layer": {

"name": "tasmania\_cities",

"href": "http://localhost:8080/geoserver/rest/imports/13/tasks/0/layer",

"title": "tasmania\_cities",

"originalName": "tasmania\_cities",

"nativeName": "tasmania\_cities",

"bbox": {

"minx": 146.2910004483,

"miny": **-**43.85100181689,

"maxx": 148.2910004483,

"maxy": **-**41.85100181689

},

"attributes": [

{

"name": "the\_geom",

"binding": "com.vividsolutions.jts.geom.MultiPoint"

},

{

"name": "CITY\_NAME",

"binding": "java.lang.String"

},

{

"name": "ADMIN\_NAME",

"binding": "java.lang.String"

},

{

"name": "CNTRY\_NAME",

"binding": "java.lang.String"

},

{

"name": "STATUS",

"binding": "java.lang.String"

},

{

"name": "POP\_CLASS",

"binding": "java.lang.String"

}

],

"style": {

"name": "tasmania\_tasmania\_cities2",

"href": "http://localhost:8080/geoserver/rest/imports/13/tasks/0/layer/style"

}

}

}

Run **curl -u admin:geoserver -XPOST -H "Content-type: application/json" -d @** **multipointExample.json "http://192.168.10.221/geoserver/rest/imports"**

**There should be no output when the command execute successfully.**

**Next are the line and polygons examples described in the same file.**

{ "type": "FeatureCollection",

"features": [

{ "type": "Feature",

"geometry": {"type": "Point", "coordinates": [102.0, 0.5]},

"properties": {"prop0": "value0"}

},

{ "type": "Feature",

"geometry": {

"type": "LineString",

"coordinates": [

[102.0, 0.0], [103.0, 1.0], [104.0, 0.0], [105.0, 1.0]

]

},

"properties": {

"prop0": "value0",

"prop1": 0.0

}

},

{ "type": "Feature",

"geometry": {

"type": "Polygon",

"coordinates": [

[ [100.0, 0.0], [101.0, 0.0], [101.0, 1.0],

[100.0, 1.0], [100.0, 0.0] ]

]

},

"properties": {

"prop0": "value0",

"prop1": {"this": "that"}

}

}

]

}

Run **curl -u admin:geoserver -XPOST -H "Content-type: application/json" -d @** **lineAndPolygonExample.json "http://192.168.10.221/geoserver/rest/imports"**

**There should be no output after this command executes.**

**Next we will do a tiff file example.**

{

"import": {

"targetWorkspace": {

"workspace": {

"name": "geonode"

}

},

"data": {

"type": "file",

"file": "/home/aaime/devel/gisData/ndimensional/data/world/world.200407.3x5400x2700.tiff"

},

"targetStore": {

"dataStore": {

"name": "od3\_repo"

}

}

}

}

Run **curl -u admin:geoserver -XPOST -H "Content-type: application/json" -d @** **tiffFileExample.json "http://192.168.10.221/geoserver/rest/imports"**

You may encounter the error Target workspace does not exist : bluemarble

Navigate to the http://192.168.10.221/ then login and click the admin icon.

Click the GeoServer. Verify the Store name the workspace name are correct in the .json file. When the call is successful it will look like this.

{"import":{"id":10,"href":"http://192.168.10.221/geoserver/rest/imports/10","state":"PENDING","archive":false,"targetWorkspace":{"workspace":{"name":"geonode"}},"targetStore":{"dataStore":{"name":"od3\_repo","type":"GeoGIG"}},"data":{"type":"file","format":null,"file":"world.200407.3x5400x2700.tiff"},"tasks":[]}}

The last example is the text and integer change example. In the example below Integers are defined as Integer and Text is defined as a String object. Alter the json and run

Run **curl -u admin:geoserver -XPOST -H "Content-type: application/json" -d @** **textAndIntegerExample.json "http://192.168.10.221/geoserver/rest/imports"**

{

"layer": {

"name": "tasmania\_cities",

"href": "http://localhost:8080/geoserver/rest/imports/13/tasks/0/layer",

"title": "tasmania\_cities",

"originalName": "tasmania\_cities",

"nativeName": "tasmania\_cities",

"bbox": {

"minx": 146.2910004483,

"miny": **-**43.85100181689,

"maxx": 148.2910004483,

"maxy": **-**41.85100181689

},

"attributes": [

{

"name": "the\_geom",

"binding": "com.vividsolutions.jts.geom.MultiPoint"

},

{

"name": "CITY\_NAME",

"binding": "java.lang.String"

},

{

"name": "ADMIN\_NAME",

"binding": "java.lang.String"

},

{

"name": "CNTRY\_NAME",

"binding": "java.lang.String"

},

{

"name": "STATUS",

"binding": "java.lang.String"

},

{

"name": "SOME\_NUMBER",

"binding": "java.lang.Integer"

}

],

"style": {

"name": "tasmania\_tasmania\_cities2",

"href": "http://localhost:8080/geoserver/rest/imports/13/tasks/0/layer/style"

}

}

}

There should be no output with this example.

To verify everything worked as expected. Navigate to http://192.168.10.221/geoserver and verify the logs.