

Infrastructure - Task #4147

Story # 3875 (Closed): Create a dashboard (version 1) for DataONE to provide high level overall system status

Task # 3978 (In Progress): Add a CN reporting script that summarizes spatial data for the dashboard

Modify d1\_spatial\_reporter.py to produce custom JSON output

2013-10-30 19:56 - Chris Jones

Status:	In Progress	Start date:	2013-10-30
Priority:	Normal	Due date:	
Assignee:	Chris Brumgard	% Done:	30%
Category:	d1_cn_tools	Estimated time:	0.00 hour
Target version:	2014.14-Block.2.3	Story Points:	
Milestone:	None		
Product Version:	*		

**Description**

The spatial reporter class has methods to output a number of formats for the incoming vector-based spatial data on the CNs (per-object n,s,e,w bounding coordinates.). We are currently producing GeoJSON, which, for client-side processing, is quite verbose, and becomes very large to transfer over the wire (currently 12MB). I've manually modified the JSON file produced from the spatial reporter to be smaller for the d1\_dashboard to render, and those changes need to be added into the spatial reporter class.

Add an \_export\_json() method that exports a modified geojson object. The output should look like:

```
{
  "type": "FeatureCollection",
  "features": [
    {
      "g": {
        "c": [124.234, 44.234]
      },
      "g": {
        "c": [124.234, 44.234]
      },
      ...
    ]
  }
}
```

where "g" is short for "geometry" and "c" is short for "coordinates" in GeoJSON. All ASCII spaces and line endings should be removed to decrease size. The identifier and nodeId attributes are currently being encoded as well, and should be removed for version 1. We may add them back in to version 2 as "i" and "n" attributes.

Investigate gzip compression of the exported JSON file for transfer over the wire. This will require some changes to d1\_dashboard to unpack the zipped file. Also try shortened lat/lon floating points, depending on the maximum zoom level in d1\_dashboard. We want markers to render to within 100m as a first pass, which should keep coastal markers over water as opposed to moved on to land, and vice versa.

History

- #1 - 2013-10-30 19:57 - Chris Jones
  - Subject changed from Modify d1-spatial\_reporter.py to produce custom JSON output to Modify d1\_spatial\_reporter.py to produce custom JSON output
- #2 - 2013-11-06 05:26 - Chris Brumgard
  - Status changed from New to In Progress
  - % Done changed from 0 to 70
- Achieved main objectives of task. Still need to work on shortening the lat/lon points to ensure 100m and getting the d1\_dashboard to accept gzip data.

**#3 - 2013-11-06 19:48 - Chris Brumgard**

Shortened the lat/long coordinates for \_export\_json to 3 decimal places. 3 decimals places at the equator will be accurate to 111.32 m and improve as coordinates move away from the equator.

**#4 - 2014-01-06 18:32 - Chris Jones**

- Target version changed from 2013.44-Block.6.1 to 2014.2-Block.1.1

**#5 - 2014-03-14 17:12 - Skye Roseboom**

- Target version changed from 2014.2-Block.1.1 to 2014.12-Block.2.2

**#6 - 2014-03-31 17:41 - Skye Roseboom**

- Target version changed from 2014.12-Block.2.2 to 2014.14-Block.2.3