How to extract a geoJSON from Oracle database map theme for use in Oracle Data Visualization?

This document discusses how to create a GeoJSON from an existing Oracle DB map theme. Itaims to help OBIEE/OAC customers who visualize maps/spatial data in their answers reports/dashboards using Base Maps, geometry themes and want to visualize these maps in Oracle DV.

Oracle Map Themes are also called Geometry Theme. A theme is a visual representation of a particular data layer. Typically, a theme is associated with a spatial geometry layer, that is, with a column of type SDO_GEOMETRY in a Base Table or view.

GeoJSON is a format for encoding a variety of geographic data structures like maps of Cities, State, countries etc. Oracle DV supports custom map layers defined in GeoJSON format. More information on GeoJSON format can be found here: http://geojson.org/

Using Oracle Map builder you can extract a GeoJSON from this Geometry theme. This GeoJSON can be directly uploaded into OracleDV as a custom map layer.

Pre-requisites

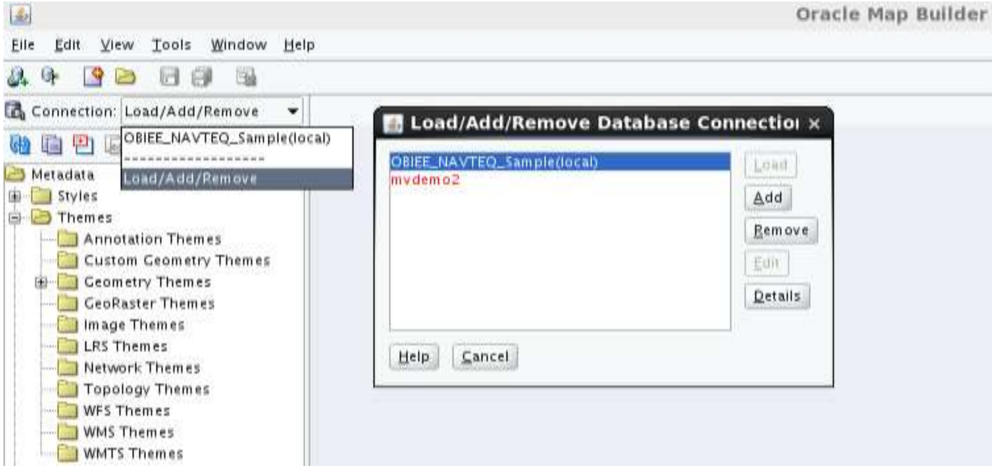
Running Oracle Database instance with a Schema that contains geographic information like geographic boundaries, points of Interest etc. in the form of geometry object types like SDO_GEOMETRY etc

NOTE: Please ensure you agree and comply with license and usage terms for each Oracle tool and software referenced in this document.

How-to Steps

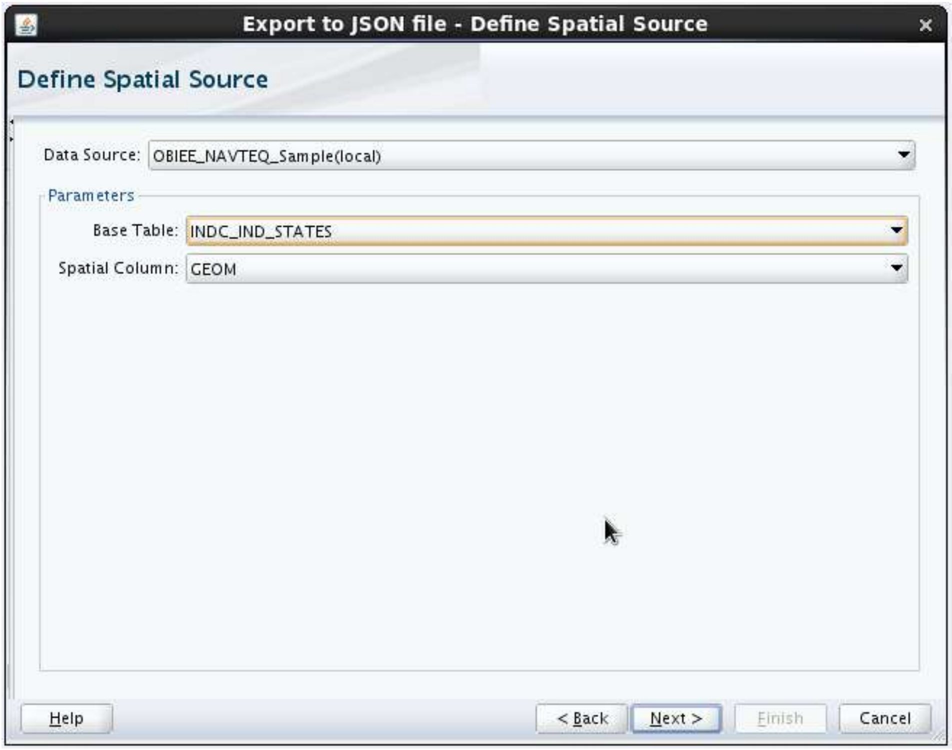
1) Install Oracle Map Builder if not installed already. Steps to install Oracle Map Builder can be found in “Installing and Configuring Map Builder” section in this Tutorial.

2) Open Oracle Map Builder and connect to the Database Schema which contains Maps tables/views. Instructions for this step are mentioned in the same section in the Tutorial mentioned in step-1.



3) Click on **Tools** in Map Builder menu and click on **Export to JSON** and Click **Next** on the console.

4) Select the Base Table using which your Tile layer is built; Spatial Column will get automatically populated usually. If it's not populated then select the appropriate Geometry column. Usually a table has one Geometry column which is of type SDO_GEOMETRY. Click **Next.**


Export to JSON file - Define Spatial Source

Define Spatial Source

Data Source: OBIEE_NAVTEQ_Sample(local)

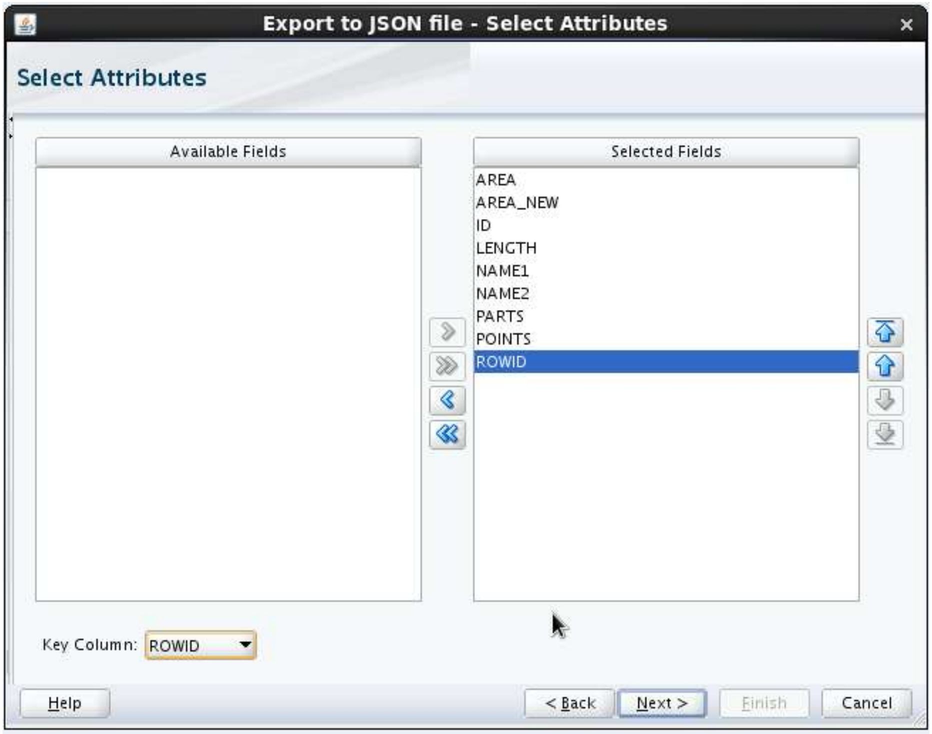
Parameters

Base Table: INDC_IND_STATES

Spatial Column: GEOM

5) All the columns present in the table are populated and you can select whichever column you'd like to add to the GeoJSON file. **Optionally** you can choose the KeyColumn which will be unique identity column "***_id***" in the geoJSON file. Each entry in the JSON file will have this unique column.

```
{"type":"Feature","_id":"AAAhR2AA4AABDp7AAA","geometry": {"type":"Point",
```



Export to JSON file - Select Attributes

Select Attributes

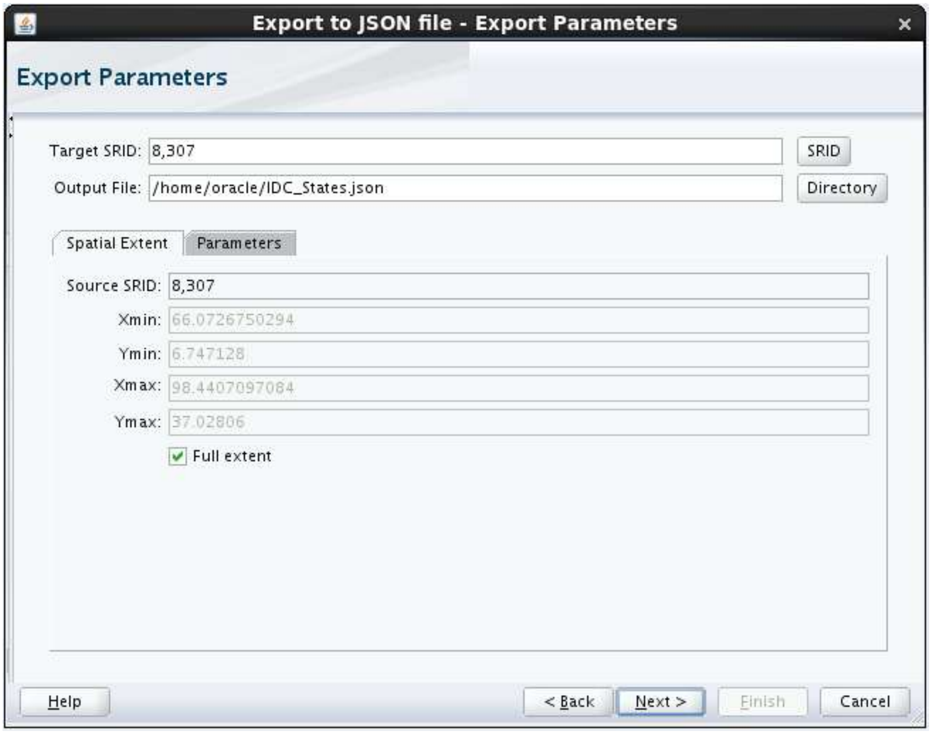
Selected Fields:

- AREA
- AREA_NEW
- ID
- LENGTH
- NAME1
- NAME2
- PARTS
- POINTS
- ROWID

Key Column: ROWID

Click **Next**

6) In the Next screen leave all the default values as they are except for **SRID** and **output file**. SRID will be populated automatically. It should be one of the supported SRIDs by OracleDV. Change **SRID to 8307**. Choose the output file name as per your choice and click **Next.**



Target SRID: 8,307

Output File: /home/oracle/IDC_States.json

Source SRID: 8,307

Xmin: 66.0726750294

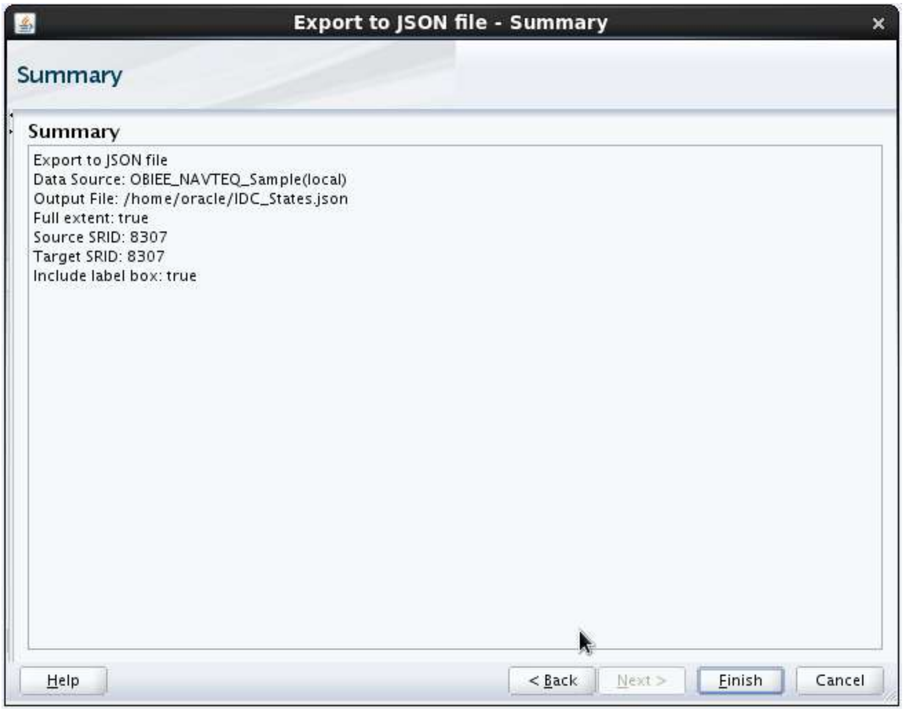
Ymin: 6.747128

Xmax: 98.4407097084

Ymax: 37.02806

☑ Full extent

7) In the Next screen you will see the summary. Click **Finish** to conclude this process.



Summary

Export to JSON file
Data Source: OBIEE_NAVTEQ_Sample(local)
Output File: /home/oracle/IDC_States.json
Full extent: true
Source SRID: 8307
Target SRID: 8307
Include label box: true

8) You will find the geoJSON(.json) file in the directory you've chosen.

Extracted geoJSON can be uploaded as a Custom map layer in Oracle DV. More instructions on how to do this can be found in this video.