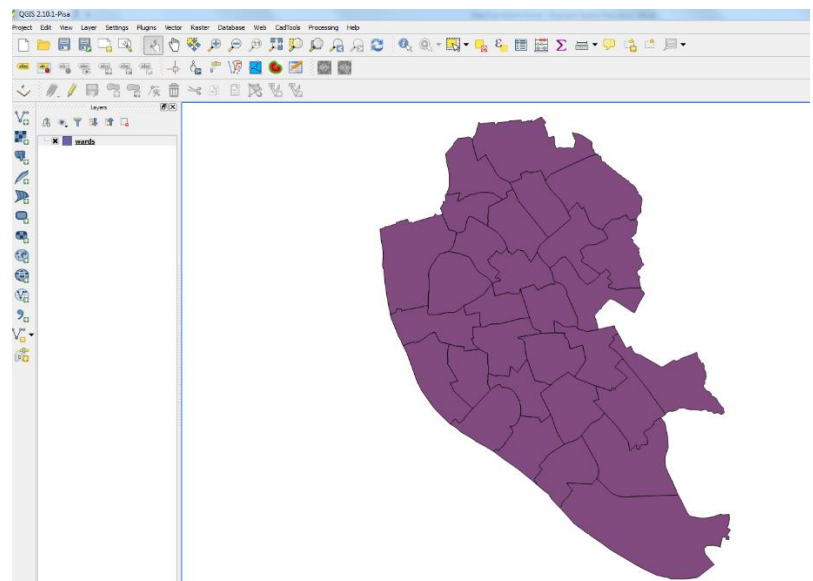


MapThat Admin Forms – Reprojecting Spatial Data

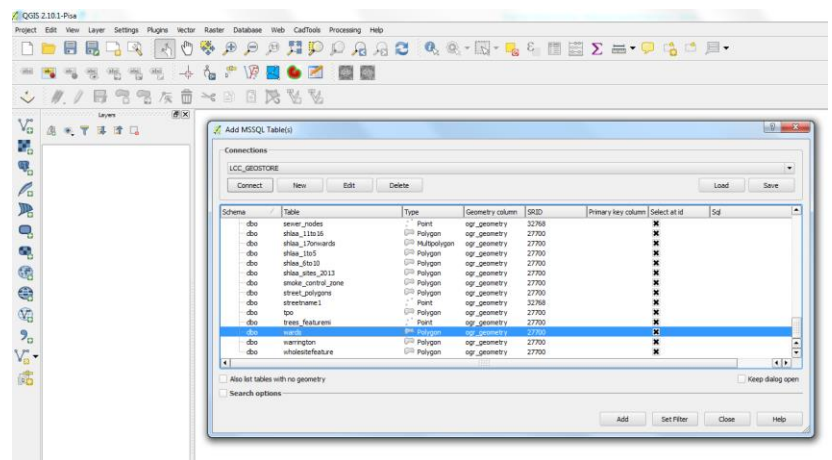
MapThat can read in spatial data with any projection. However, as MapThat is a webGIS all data is reprojected from its native projection to **WGS 84 – EPSG:4326** in order to ensure all data is projected in the same way. Because data is reprojected you will find that layers which have their native projection as EPSG:4326 will likely display faster than those that have an alternate native projection. We would therefore recommend that for complex layers, such as polygon layers with complex vertices, the spatial data should be projected to EPSG:4326. The details below provide advice on how to reproject your spatial layers so that they display faster within MapThat.

Reproject your data within a GIS:

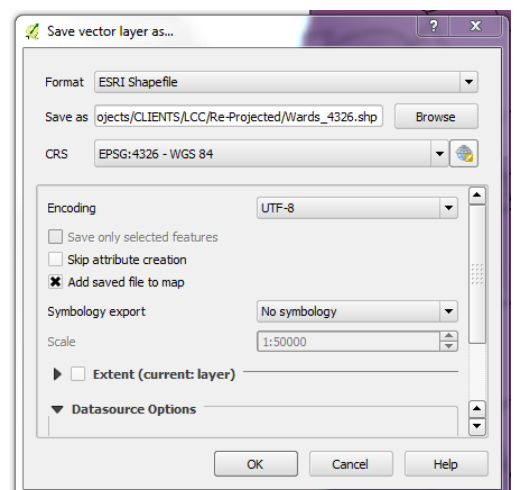
Many datasets that MapThat consumes will have been imported from flat GIS file formats (MapInfo.TAB or Shapefile) into a spatial database, such as; SQL, Oracle and PostGIS. The first step is to find your source GIS file and open that into a GIS, for example I will be using **QGIS** and reprojecting a Wards layer.



An alternative to finding the source GIS file, which may now be far older than your current MapThat layer, is to use a **database connection** to your spatial datastore to load the most current version of your data. In the example below I am using the SQL connection available in QGIS to download the Wards data from my MapThat Geostore (SQL database).

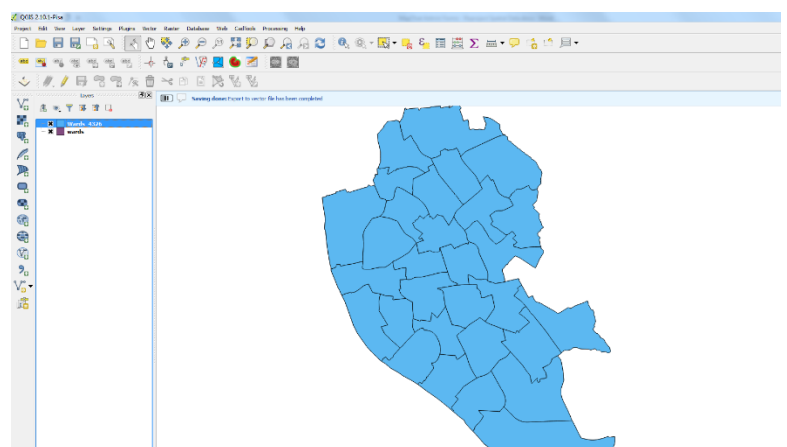


Once the Wards layer has been opened/downloaded, then you simply need to save a copy of the dataset with an alternate projection. In QGIS you will simply need to **right click** on the layer and choose **Save As**.



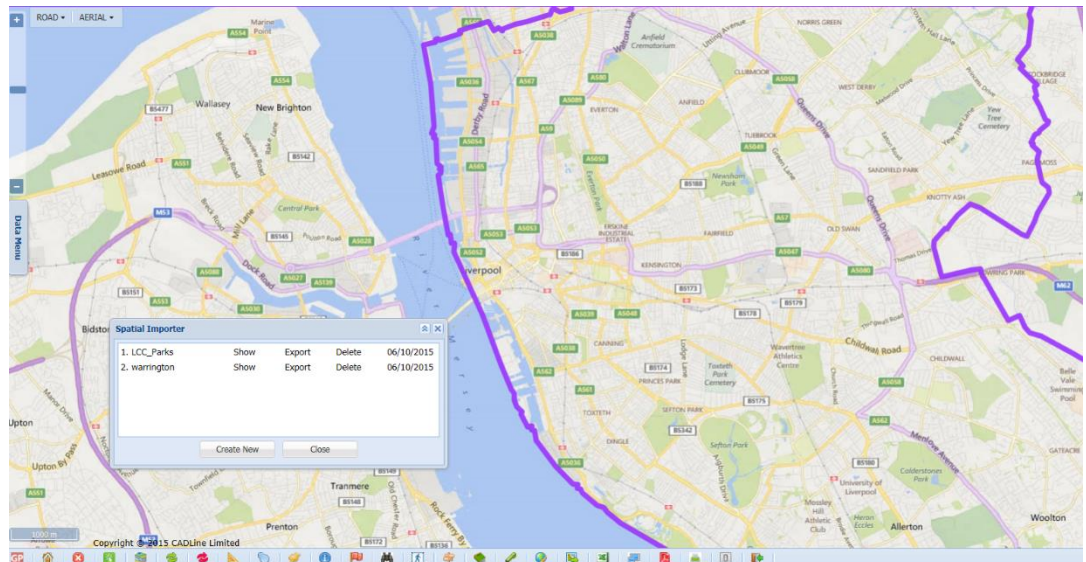
Specify a **name**, **location** and choose the **new CRS** (coordinate reference system), in this case **EPSG:4326**. Then press **OK**.

The newly reprojected Wards data will now be saved and added into QGIS.

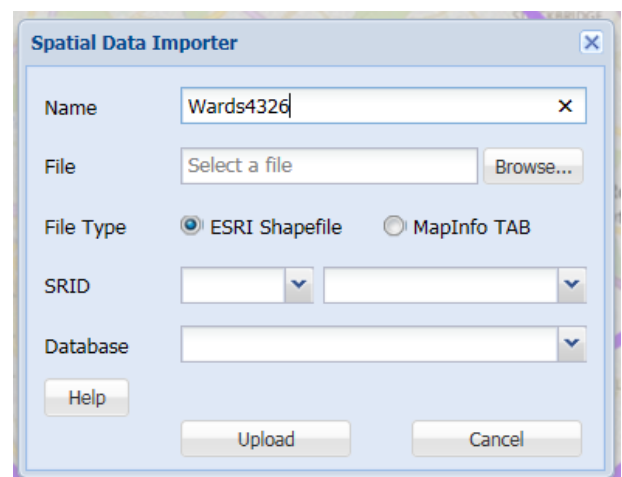


MapThat Spatial Importer Tool:

Now that you have your dataset in the correct projection, you can use the **Spatial Importer tool** within MapThat to import the GIS file as a table into your Geostore. Open MapThat and choose the Spatial importer tool.

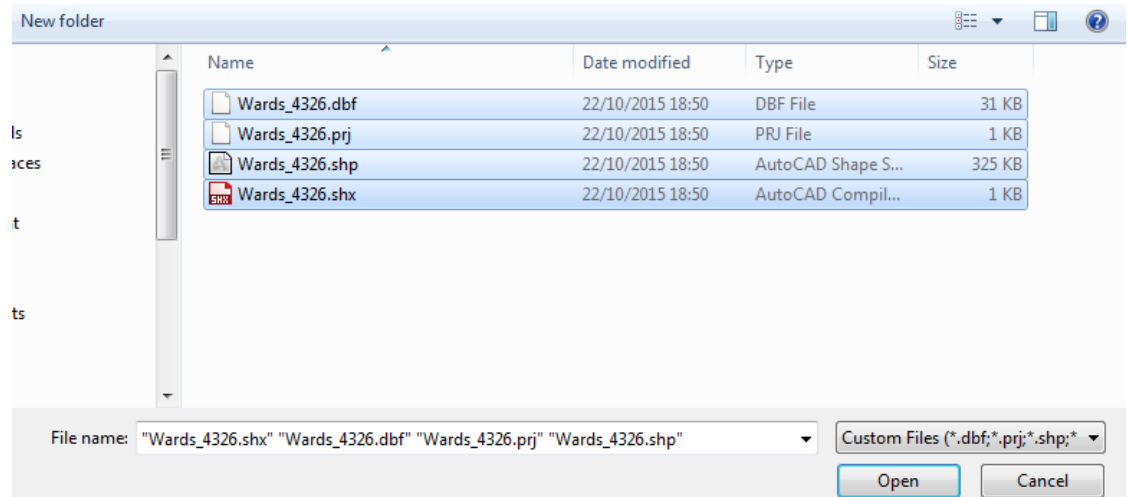


Choose **Create New** and you can then complete the details of your spatial import. Firstly specify a **Name** for the data. This will be the resultant name of the Geostore database table and doesn't need to be the same as the source GIS file. **NB.** *It is advisable to not have spaces and hyphens in the Name.*

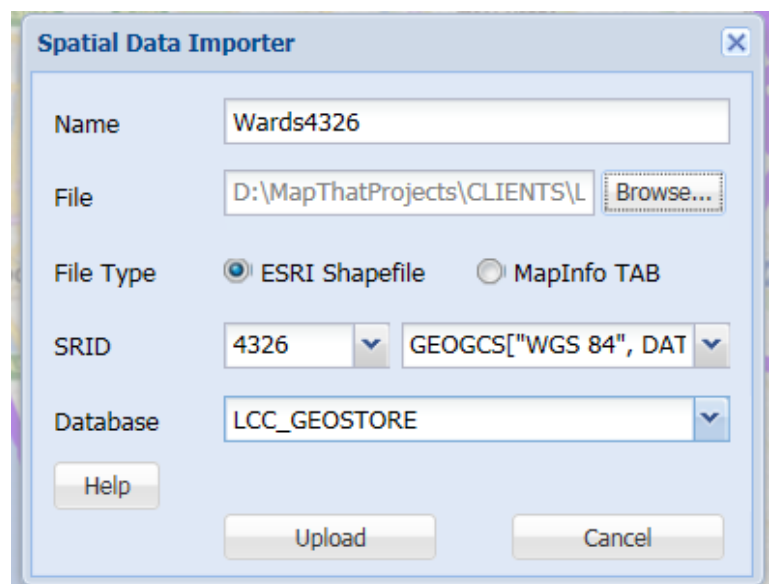


Next choose if you are importing a **Shapefile** or **MapInfo Tab** file. In this case I will choose **ESRI Shapefile**.

Now choose **Browse** to find the GIS file and select each of the component parts e.g. for a Shapefile choose the .shp, .shx, .dbf and .prj then press **Open**.

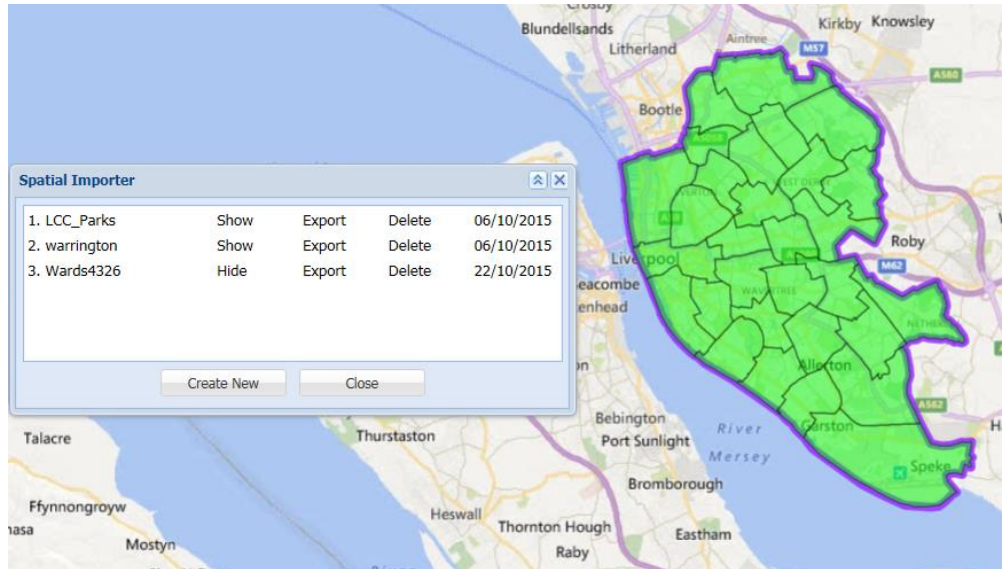


From the **SRID** drop down box type the first few numbers of the SRID and then choose it from the list. In this case type **4326**, choose it from the list and the required projection will appear.



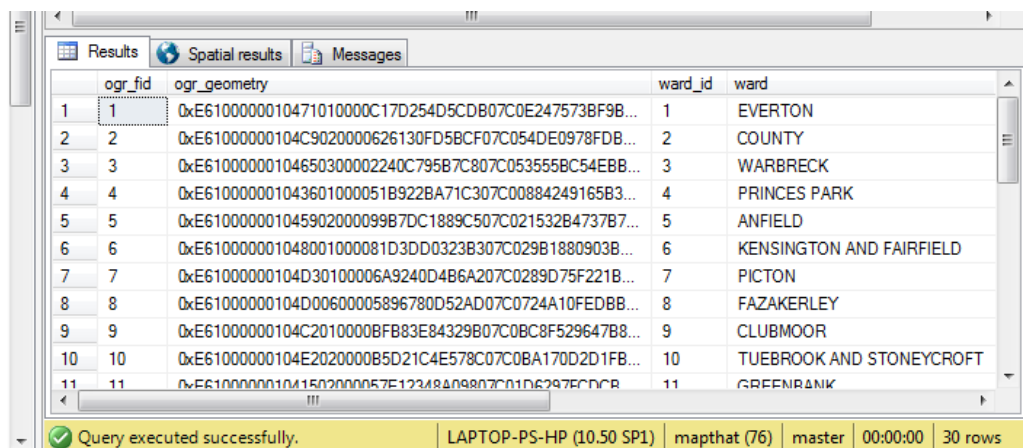
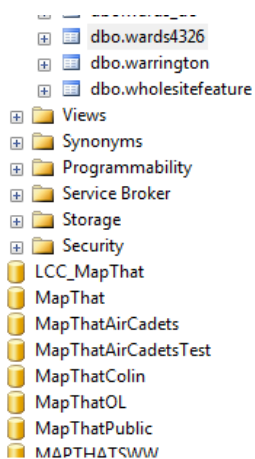
Finally, depending on whether you have multiple databases that MapThat utilises, choose the **Database** to import the GIS file into and then press **Upload**. Depending on the size and complexity of the GIS file the import may take a few seconds or maybe a couple of minutes.

Once the import has completed the GIS file will now be displayed as a layer within the MapThat Spatial Import tool.



In addition the GIS file will now have been imported into the chosen spatial database. This can be viewed using the Admin tools for your chosen database, e.g. **SQL Management Studio (SQL)**, **SQL Developer (Oracle)** and **PgAdmin (PostGIS)**.

This is a view of the Wards4326 table now imported into my SQL database.

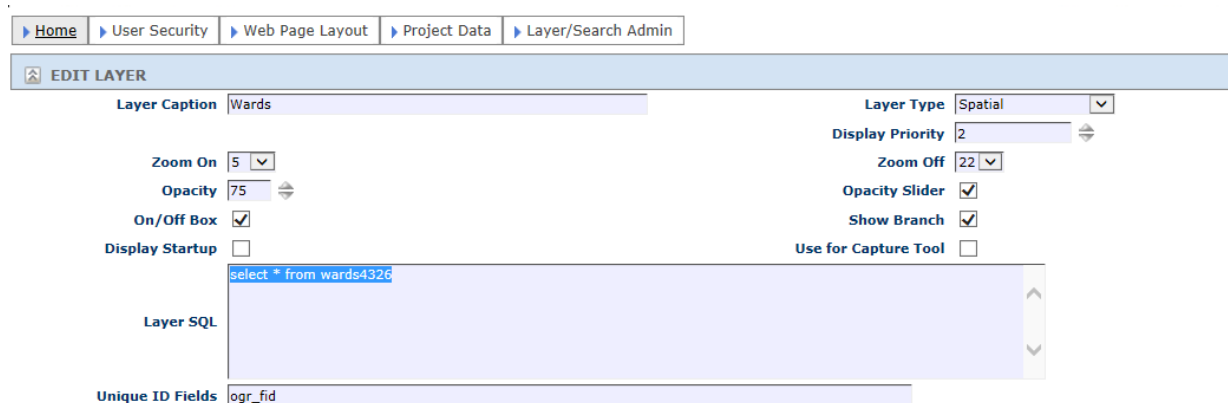


MapThat Admin:

The final step will be to either create a new layer or **edit the existing layer** to now point to this new database table. In the example below I will edit an existing Wards layer to make the necessary changes.

In MapThat Admin, search for the relevant layer and then choose the **Edit button**.

Firstly edit the **SQL statement** so that it now loads the correct database table i.e. Wards4326.



Next in order to choose the rest of the information e.g. the geometry column, you will need to re-connect to the correct database and database table. To do this choose **Change Database Details**. Select the correct **Database**, choose the new **Geometry Table** within that database (Wards4326) and then choose the **Geometry Column** (if you have used the Spatial Importer tool this will be called **ogr_geometry**).



To check the connection to the new database table is correct choose **Update Record Count**.

Next you will need to edit the **SRID** for the layer. It is likely that the current SRID of the MapThat layer will be set to British National Grid – EPSG:27700.

SRID

OS Data Source

Untick the **OS Data Source** radio button and the SRID will auto update to 4326.

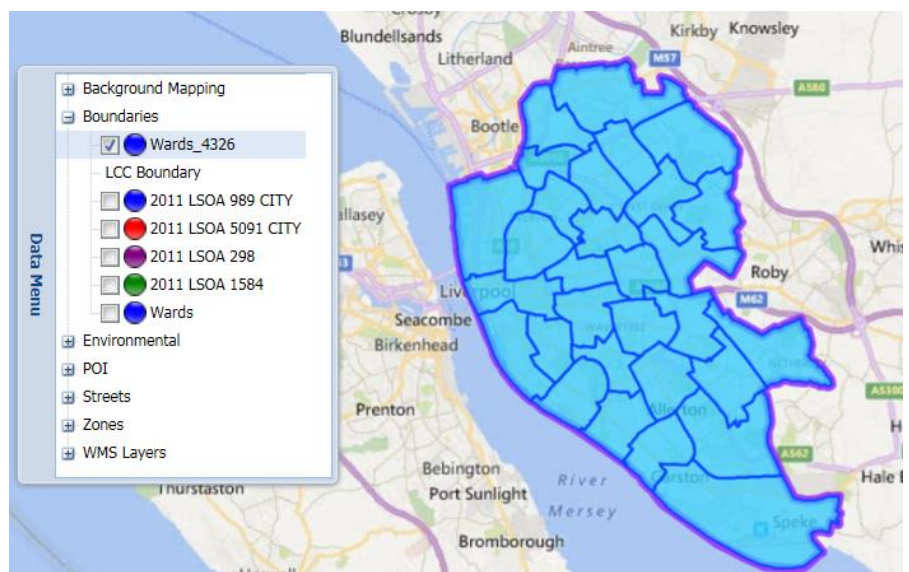
SRID

OS Data Source

All other options can remain the same e.g. the style, Information Bubble, Theme etc... Finally choose **Save And Close** to save the changes to the layer.

View the Layer in MapThat:

Now you have successfully edited the MapThat layer, open MapThat and choose to display the layer. You will instantly notice that the speed the layer is redrawn is a lot quicker than the original BNG dataset.



NB: Applicable to MapThat OL3 version 1.0.0 onwards.