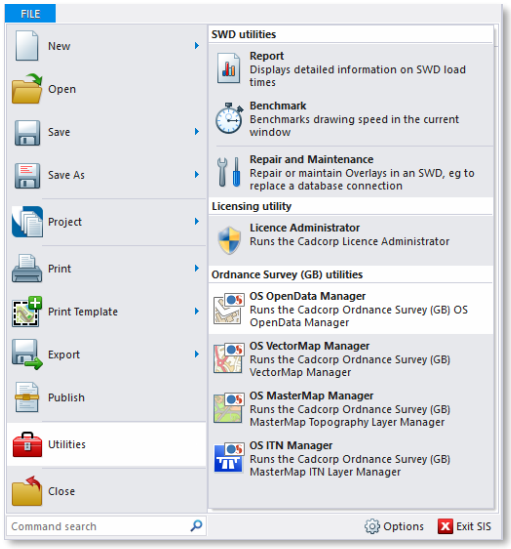
Loading Ordnance Survey data and related functionality

Users will be aware that there are tools that allow you to take the native Ordnance Survey format data and load the data into a .bds file, .idb file or spatial database table in order to use the data to its full potential.

The data loaders can be found in **File** > **Utilities.** There are existing loaders for:

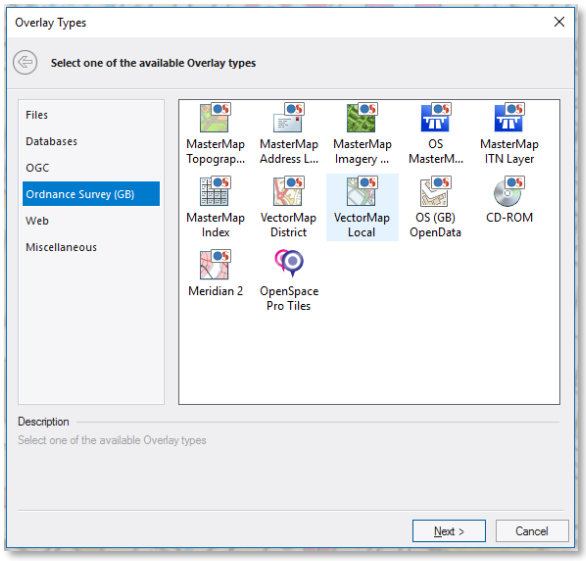
- OS Open Data™
- OS VectorMap
- OS MasterMap®
- OS MasterMap® Integrated Transport Network™ (ITN)



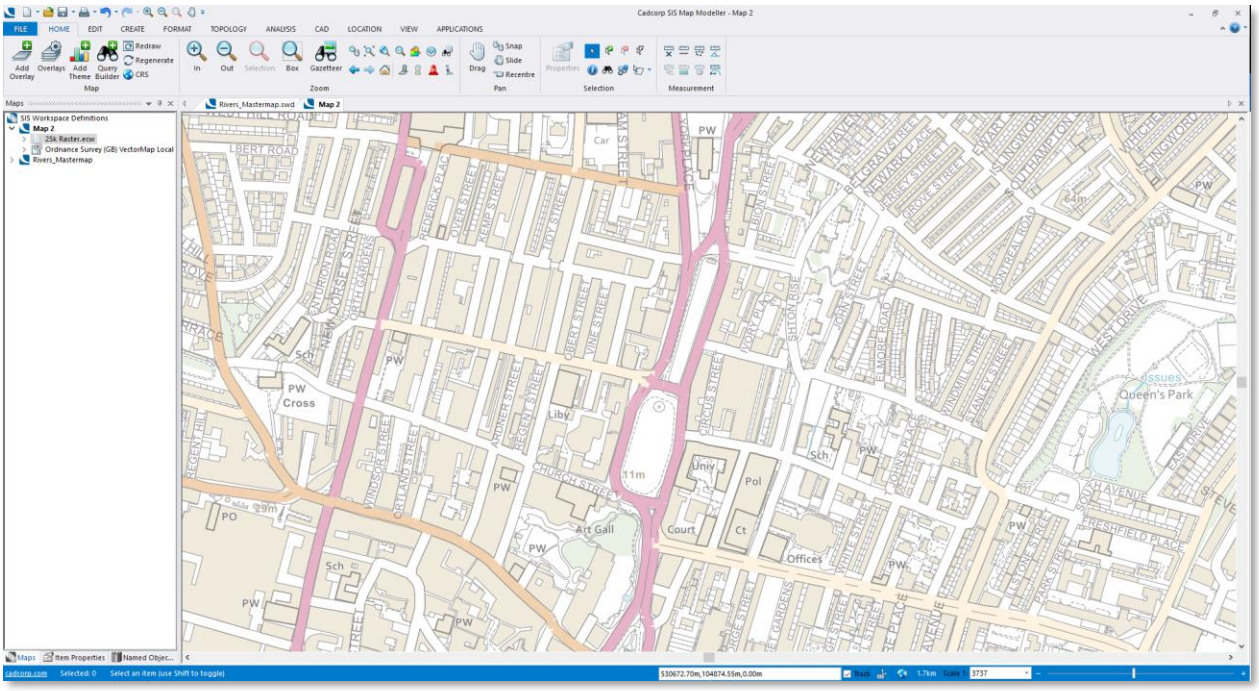
OS Vector Map Local

In the demonstration, the Vector Map Local data has been preloaded into a spatial database. In order to load the data:

- **Add Overlay** > **Ordnance Survey (GB)** > **VectorMap Local**



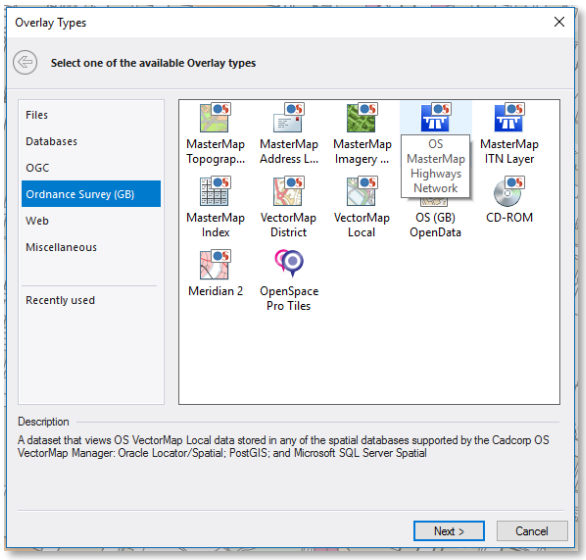
The user can then choose the spatial database where their data is stored; in this example, our data is stored in PostGIS. The user will select their login to the database and the system recognises the data to present to the end user. Clicking finish will then add the data to the map, styled appropriately.



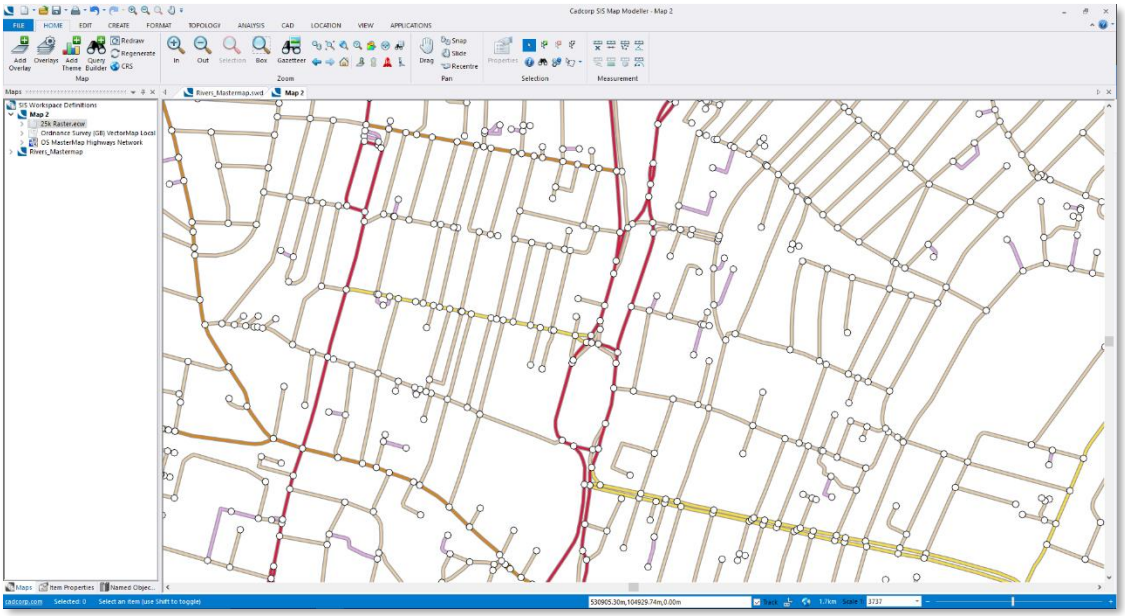
OS MasterMap Highways Network

The latest monthly build of Cadcorp SIS allows a user to load Ordnance Survey Highways data in its native format of .gz files. To load the data:

- **Add** Overlay **> Ordnance Survey (GB)** > **OS MasterMap Highways Network**



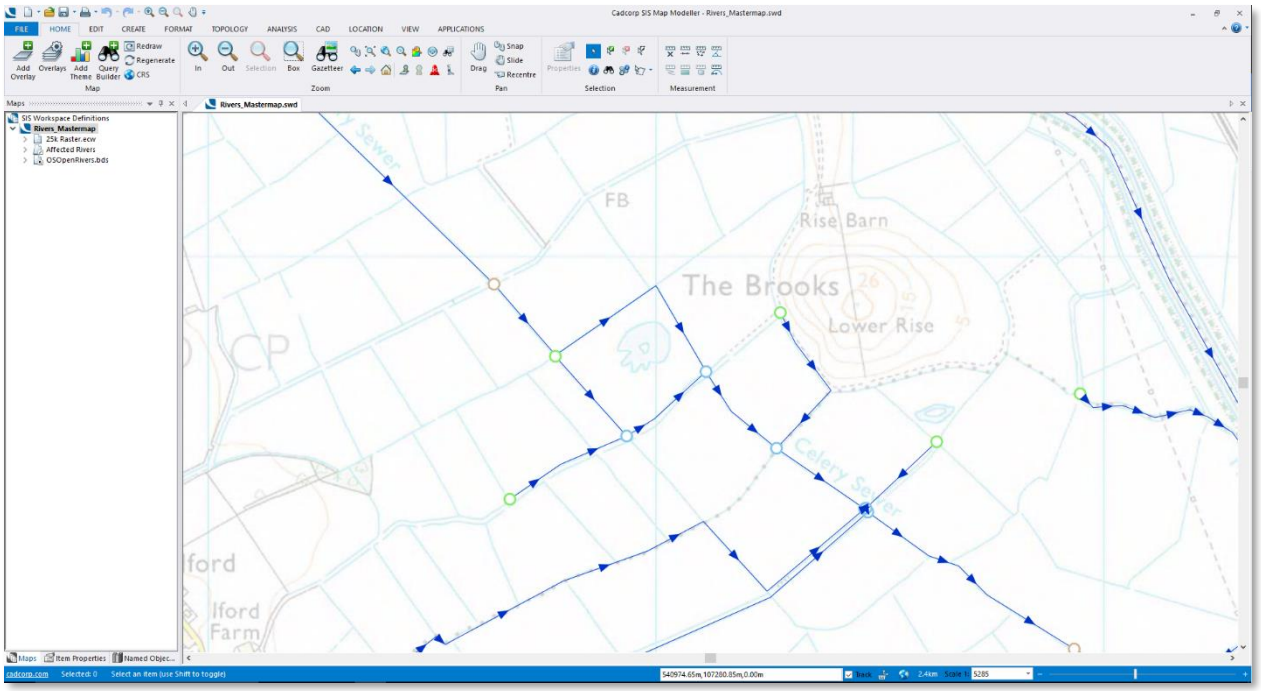
- The user can then choose the relevant folder where the .gz files are stored and click **Finish.** The loader shown above allows users to visualise the network data and provides limited routing information. A Network Manager Loader will be available in the next service release that will allow full routing analysis on this network.



OS Open Rivers

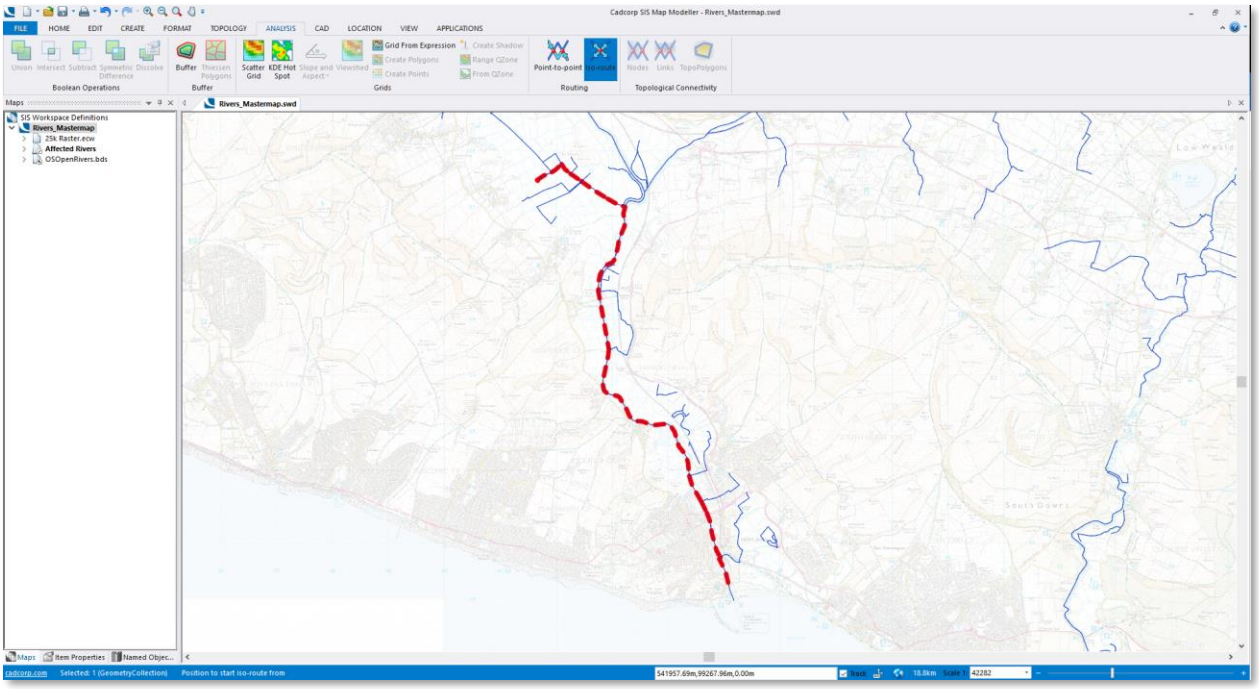
The rivers data is delivered by Ordnance Survey as .shp, or .gml files. Loading the .gml dataset shows information such as the source, junction and outlet nodes. This allows us to use this data to build a flow network to see how a toxic spill could be swept downstream. Although the OS Open Rivers dataset does not contain flow information, you can model this in SIS to build your own network. The data can be loaded by dragging and dropping the data in its native format.

It can be exported to a .bds file for faster loading and to add network flow information.



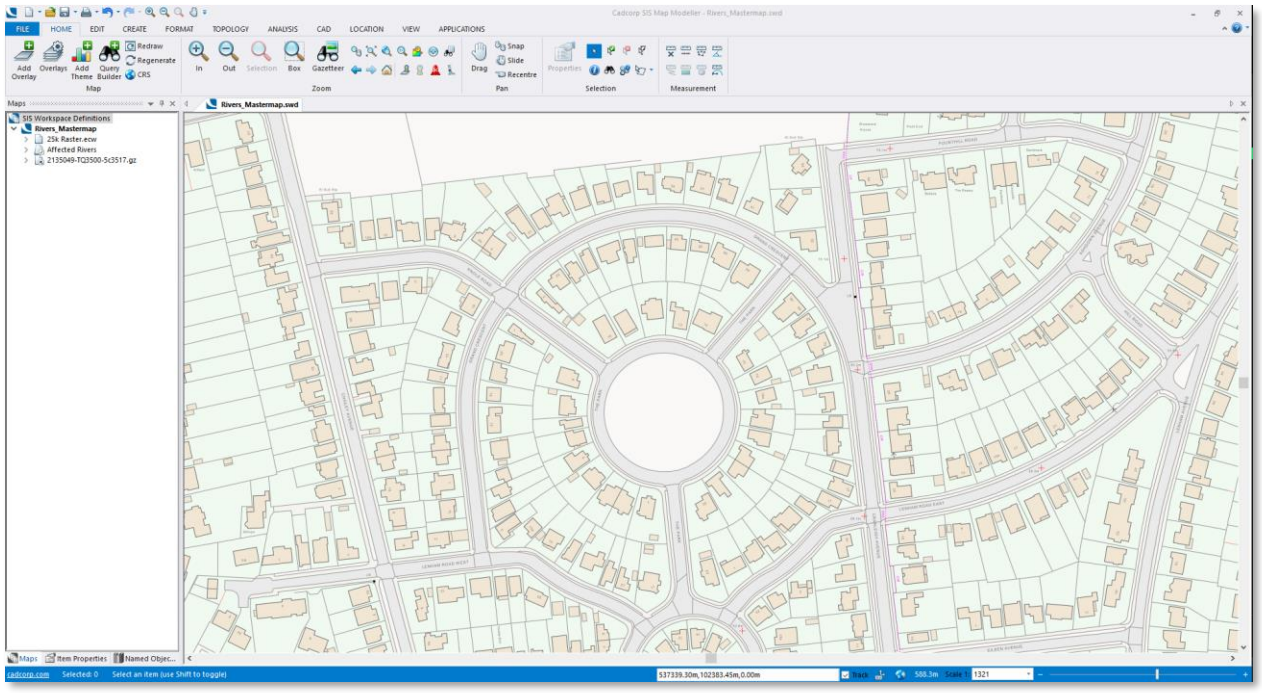
The analysis can be run on the data from:

- Analysis > **Iso Route**
- From the dialogue box you can then select the **Shortest Route** and select a limiting value, in this example we're going to say **10000m**.
- The user can then **click on a relevant node** and see which rivers, and how far along that river, that spill would affect.



OS MasterMap Topography Layer

Cadcorp SIS can easily load MasterMap topography layer data in its native format simply by dragging and dropping the .gz file format into the software. The data is automatically georeferenced, styled and displayed.

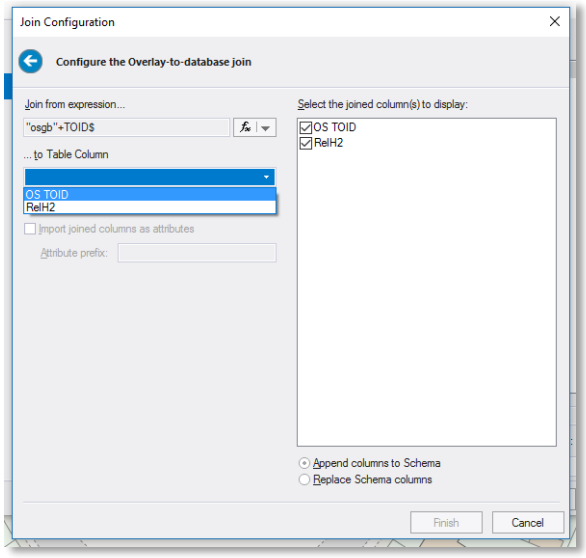


OS MasterMap - Height data

It is possible to add the MasterMap heights data to the MasterMap Topographical data using a common attribute and then view that data in 3D.

Using the TOID as a common attribute, we can create a join between the MasterMap Topographical data and the MasterMap Heights data:

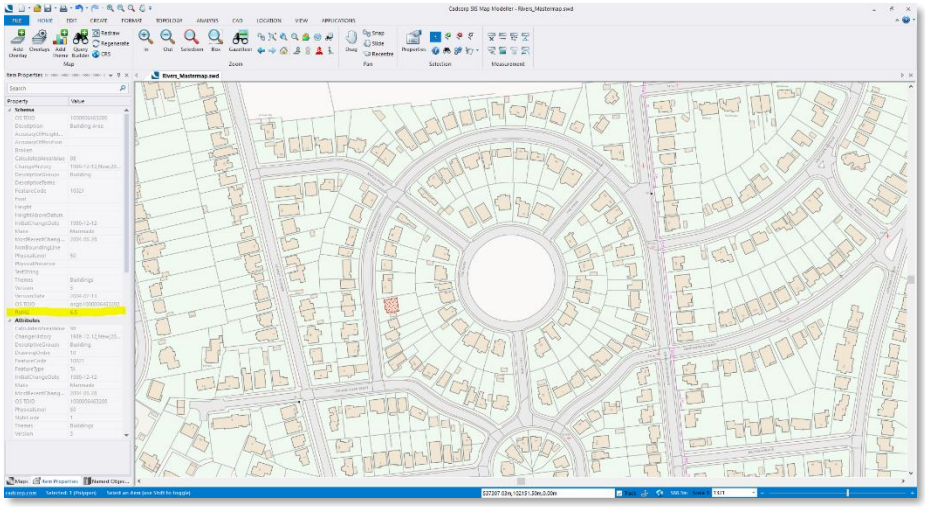
- Go to **Home** > **Overlays** and click on the .gz file for the MasterMap.
- Click on the **Schema** Column and click on **Join** > **Connect**
- Select to join to a **Comma Separate File** and click **Next**
- Select the CSV file that holds the height data, click **Next**
- Make sure the settings are correct on the configuration of the database file dialogue.
- Make sure the settings are correct on the configuration of the delimited file format dialogue.
- Make sure the settings are correct on the configuration of the database columns dialogue.
- On the following dialogue you need to select the columns to be added to the MasterMap data, this must include the common attribute. In this example, we have the OS TOID and the RelH2 column.



Finally, we can then add the join column from the spatial dataset.

- In the “Join from expression…” field click to edit and expression. Depending on whether the data you hold is exactly the same you might need to add the following as an expression: **"osgb"+TOID$**
- In the “…to Table Columns” choose the relevant TOID field attached to the data. On this occasion **TOID.** Then click **Finish.**

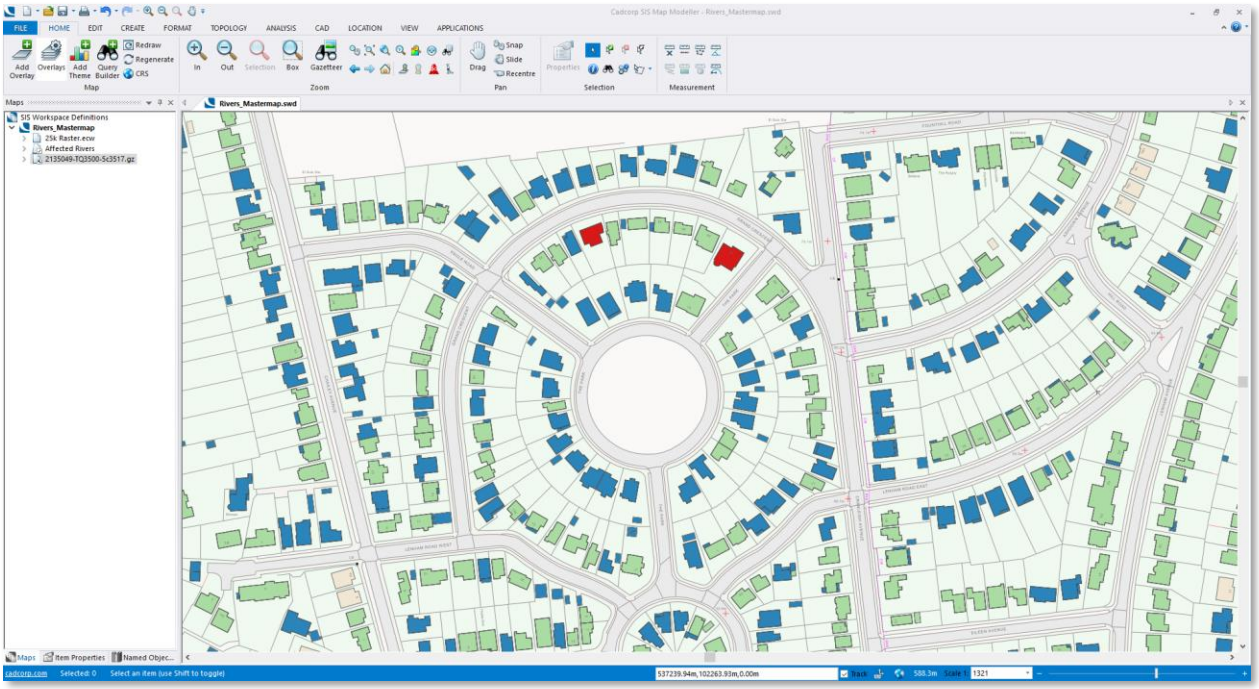
The data will now be joined and you will be able to see this by clicking on your dataset and looking at the attributes of the data, which will now contain the relh2 field.



Now that the data has been joined to the MasterMap we can then style the data using a range theme. To do this:

- Click on Add **Theme >** Ensure you have the MasterMap selected **>** Choose the **Style** option down the left of the dialogue and select **Ranges.** Click **Next**
- Highlight the **RelH2** column that we have just added. Click **Next**
- In the Ranges dialogue, customise the **number of ranges**, the **divisions** and whether you **round the results** or not. Click **Next**.
- Then in the range style dialogue choose the colours for the individual colours, before clicking **Finish.**

Your result will look similar to the image below:



Finally, because we have the height data attached to our MasterMap layer we could choose to view this in 3D. The way we do this is by extruding the 2D items in 3D views within the themes options of the layer.

- Click on **Add Theme** > Choose **Operation** from the left hand menu and then select **Extrude 2D items in 3D views.** Click **Next**
- Choose the relevant attribute columns, in the example **RelH2.** Click **Finish.**

The data will now display in 3D:

- On the **View Tab** > **3D**