

Instructions

24.10.2019

Implementation of Statistics Finland's interface services in the QGIS application

QGIS version 3.4.11 has been used when compiling these instructions. Further instructions can be found on the <u>QGIS web page</u>.

Initial settings

Proxy

If your organisation uses a proxy you should first set the data under the menu Settings -> Options -> Network. (Figure 1)

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Figure 1. Choose "Use proxy for web access" in the Network tab.



Default coordinate system

It is recommended to select a coordinate system, which the application always uses as the default in a new project and a new map layer.

NB All geospatial data in Statistics Finland's interface are in the ETRS-TM35FIN coordinate system.

Choose Options from the Settings menu.

1. Go to the tab CRS. In both, select the desired coordinate system using the drop-down menu under Use a default CRS by opening a new selection window from the Select CRS icon found under the menu. (Figure 2)

Q Options CRS		×
Q	▼ CR5 for New Projects	
🔀 General	When a new project is created	
X System	○ Use CRS from first layer added	
	Use a default CRS Project CRS: EPSG: 3067 - ETRS89 / TM35FIN(E,N)	
	▼ CRS for New Layers	
Data Sources	When a new layer is created, or when a layer is loaded that has no CRS	
🞸 Rendering	Prompt for CRS	
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	OK Cancel Help	

Figure 2. Choose the CRS tab and click on the icon next to both drop-down menus, which will open a new selection window.



 If you want to set, for example, the ETRS-TM35FIN coordinate system as default in the application, the easiest way is to type the code 3067 in the Filter field. If you do not know the code, search the desired coordinate system in the list. Click on the coordinate system you found and click OK. Finally click OK in the Options window. (Figure 3)

Q Coordinate Reference System Selector ×					
No projection (or unknown/non-Earth projection)					
Filter Q 3067	<				
Recently used coordinate reference systems	,				
Coordinate Reference System	Authority ID				
ETRS89 / TM35FIN(E,N)	EPSG:3067				
 Coordinate reference systems of the world 	Hide deprecated CRSs				
Coordinate Reference System	Authority ID				
Projected Coordinate Systems					
 Transverse Mercator 					
NAD_1983_2011_Maine_2000_West_Zone	EPSG:103067				
 Universal Transverse Mercator (UTM) 					
ETRS89 / TM35FIN(E,N)	EPSG:3067				
4					
Selected CRS WGS 84					
Extent: -180.00, -90.00, 180.00, 90.00 Proj4: +proj=longlat +datum=WGS84 +no_defs					
	OK Cancel Help				

Figure 3. Writing 3067 in the Filter field finds the coordinate system ETRS-TM35FIN.

Retrieving WMS layers

One way to insert map layers to the application is via the Layer menu in the top bar.

 When retrieving the WMS interface service choose Add layer -> Add WMS/WMTS Layer. The application opens a new window through which a connection to the WMS and WMTS services is created. (Figure 4)



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	Request step size		
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WMS/WMTS WMS/WMTS	ETRS89 / TM35FIN(E,N)		Change
ter wcs	Use contextual WMS Legend		
WFS	Layer name		
ArcGIS Map Server	Ready		
ArcGIS Feature Server			Close <u>A</u> dd Help

Figure 4. Choosing Layer -> Add Layer opens the selection window.

- 2. Click New and the application opens the WMS server's add function.
- 3. Give a freely chosen name for the WMS connection you are retrieving in the Name field.
- 4. Copy the URL address for the WMS service you want to the URL field. The addresses are found in the table in Statistics Finland's online service on the <u>Geographic data page</u>.

NB You do not need to identify yourself on Statistics Finland's server. Click OK. (Figure 5)



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Figure 5. Here you give the WMS connection a name (e.g. data name) and the URL address of the interface service.

5. Lastly, click Connect and the application will retrieve the data from the data available in the WMS service. If the connection to the server was successful, a list of data is uploaded in the space below. Choose the data you want and click Add. You can close the window with the Close button. (Figure 6)



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Oracle	Options (0 coordinate reference systems available)	
DB2 DB2	Tile size	
🙀 Virtual Layer	Request step size	
		Change
ter wcs	Use contextual WMS Legend	
WFS	Layer name	
ArcGIS Map Server	Select layer(s)	
ArcGIS Feature Server		Close Add Help

Figure 6. Click Connect and choose one or more WMS layers from the list. You can add the layers to the map by clicking the Add button.

Retrieving WFS layers

WFS layers are also imported to the application through the Layers menu.

- 1. Now choose Layer -> Add Layer -> Add WFS Layer.
- Give a freely chosen name for the WFS connection you are retrieving and write it in the Name field. Retrieve the address to the data you want from the same web page table as with the WMS layers and add it to the URL field. You do not need to identify yourself here either. Click OK.
- Lastly, click Connect and the application will upload the data available in the WFS service as a table. You can choose the data you want from the table. Finally, the chosen layers are added to the project with the Add button.

Another way to search for WMS and WFS map layers is to create a connection to the interface service by using the right mouse button to click on the Browser panel and selecting New Connection. Again, the same selection windows shown in figures 5 and 6 will open. (Figure 7)

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Figure 7. You can also create the interface service connection from the Browser panel.

The result should look like the figure below. The retrieved data are listed in the Layers panel on the left and the actual map window is to the right. (Figure 8)

NB If the Layers panel is missing from the view you can retrieve it via the path View -> Panels -> Layers.

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Figure 8. 2019 PAAVO statistical data and postal code areas have been retrieved to the map window as WFS layers.