

QGIS – Learning Package 2 – I need some maps!

One of the biggest issues facing individuals is “Where can I acquire good base maps?”

Unfortunately in some places it is not easy. Many countries provide their GIS spatial data for free but others, like Australia, seldom provide their best data for nothing. You might be able to get maps at a scale of 1:250,000 for free but not at a useful scale like 1:25,000 the same as Tasmaps.

I have started a collection of data that is available for free or available as downloads from various Open Source locations.

If you have a good data connection and lots of bandwidth then feel free to download some of these files but I will make them available when we get together.

Maps for Wildcare Use Only

Wildcare provided a grant to FOGIS to buy the digital 1:25,000 series of TASMAPS. These are available for Wildcare projects only

Maps for private use

In March 2015 TASMAPP started to make digital downloads available online via the eshop.

<https://www.tasmap.tas.gov.au/>

Here you can download 1:250,000, 1:100,000 and 1:25,000 maps for private use. Maps are \$2.00 per sheet and come in a format that can be read by QGIS. They also come in a format that can be loaded to newer model Garmin GPS's.

Another way to get maps is to link to them online which is OK if you have a good internet connection. The next couple of pages show you how to link in to the LIST maps (Topo, aerial photography and raster maps)

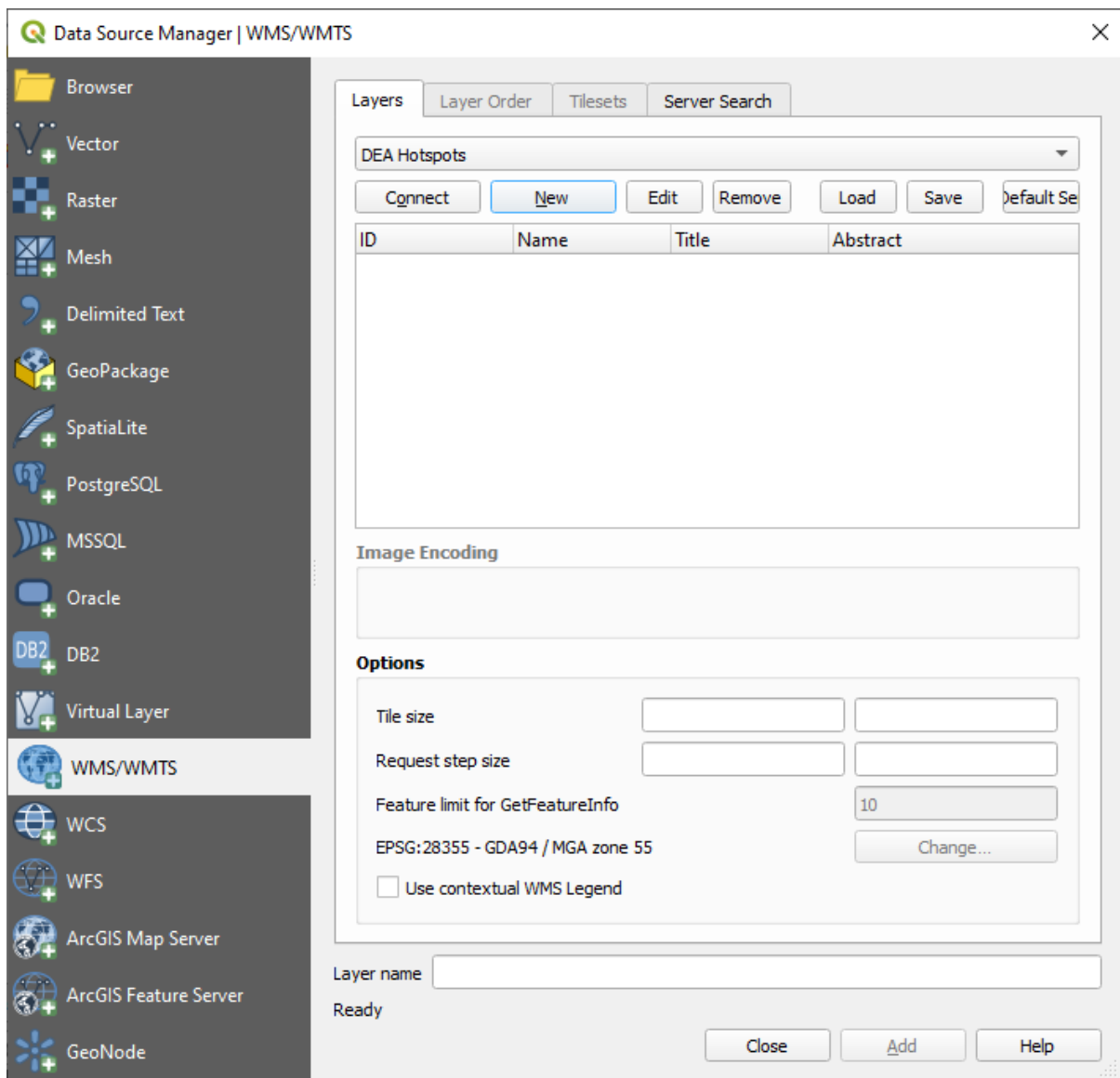
What is WMS and how do we access the technology?

WMS stands for web mapping services and its becoming more popular all the time. An example of WMS is the LIST site where maps are delivered via an online portal

<https://maps.thelist.tas.gov.au/listmap/app/list/map>

Now we can actually get online access to these maps (in all forms) via QGIS. It's a bit slower than the web portal but it does give us some instant map backgrounds. **Be aware that this will require constant download of tiles from the server so you need a good internet connection and a good data allowance.**

Here is how you get access – Layer, Add Layer, Add WMS/WMTS Layer



Now click the new button and add the details as shown and press OK

The full URL is

<https://services.thelist.tas.gov.au/arcgis/rest/services/Basemaps/TasmapRaster/MapServer/WMTS/1.0.0/WMTSCapabilities.xml>

Create a New WMS/WMTS Connection

Connection Details

Name: TAS - LIST - Tasmap Raster

URL: <https://services.thelist.tas.gov.au/arcgis/rest/services/Basemaps/TasmapRaster/MapServer/WMTS/1.0.0/WMTSCapabilities.xml>

Authentication

Configurations Basic

Choose or create an authentication configuration

No authentication

Configurations store encrypted credentials in the QGIS authentication database.

WMS/WMTS Options

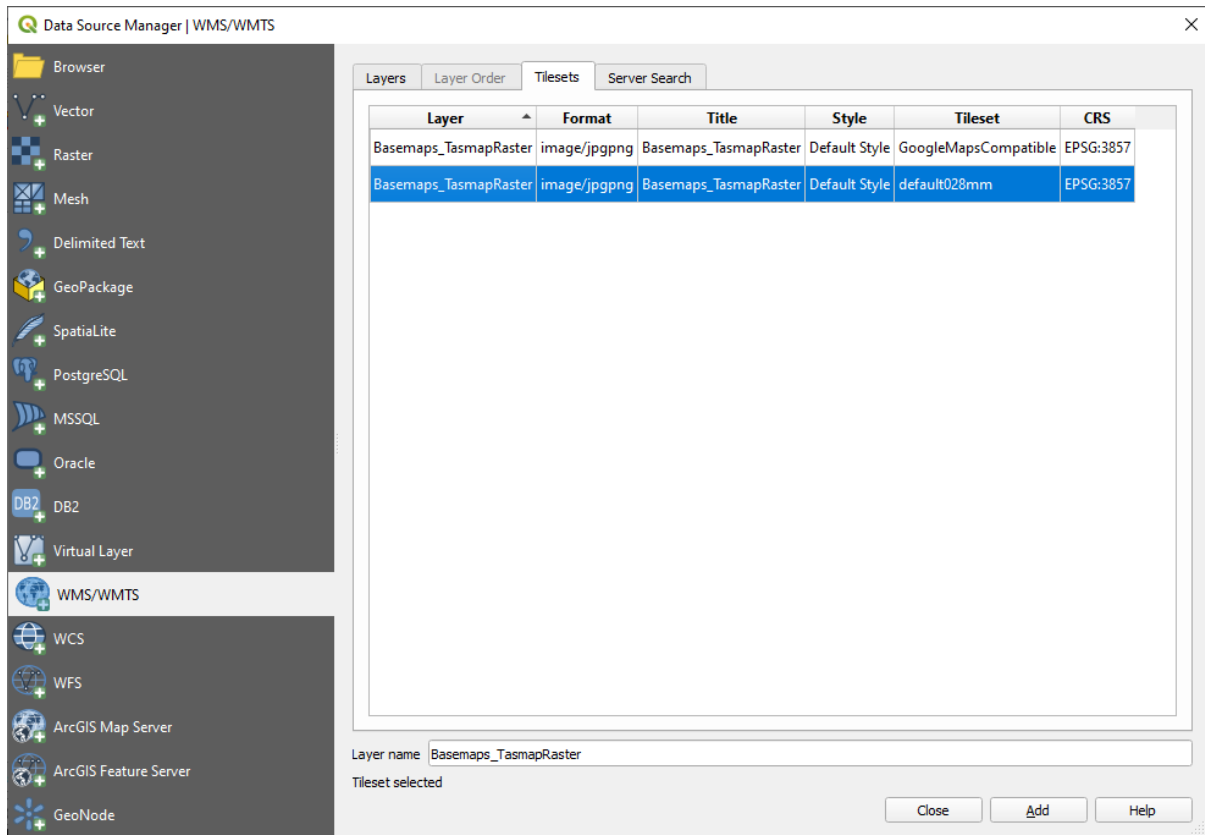
Referer

DPI-Mode: all

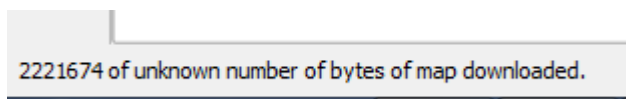
- Ignore GetMap/GetTile URI reported in capabilities
- Ignore GetFeatureInfo URI reported in capabilities
- Ignore axis orientation (WMS 1.3/WMTS)
- Ignore reported layer extents
- Invert axis orientation
- Smooth pixmap transform

OK Cancel Help

When you are back at the previous screen press the Connect button and you will get the following screen.



Now press Add and the maps will start to download. Watch down on the status bar (bottom left) to see how things are going



When the map appears you can close the Add Layer dialog box and you will see your map!

This is quite a good WMS layer because as you zoom in and out the maps change from 1:500K, down to 1:25K and even down to the street Atlas when you are zooming in on a town.

It is however a bit fuzzy at times as its just an image snapshot of the paper maps. We will learn later how to get clearer background maps of specific maps. It is good for just finding your way around the state.