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Using OpenStreetMap Basemaps with QGIS 3.0

QGIS 3 is a new wave of open source GIS. Not only is it extremely quick and efficient, allowing you to use almost every type of geospatial data you can throw at it, but it also includes a 3D renderer and ways to export your creations straight to the web. And let's not forget the HUGE amount of tools it comes with out of the box.

But it has only been out a couple of days and is missing the good old "Quick Map Tools" which we have all become accustomed to, allowing us to easily bring in OpenStreetMap, Stamen, and other background maps with ease. You may have read that you can enable them by using xyz tiles, but, if you are like me, this might as well say, "Stick cheese in your keyboard and twiddle it a little." As an average GIS user, I have no idea what an xyz tile server is, and, unless you need one, you probably won't know either. So good news: I've put

together a little blog for you to get your services back with ease.

Here's how:

1 - Go to https://wiki.openstreetmap.org/wiki/Tile_servers



Open the OSM wiki

2 - You'll see that there is a column "tiles url." These are the xyz tile web addresses you need to make this work.



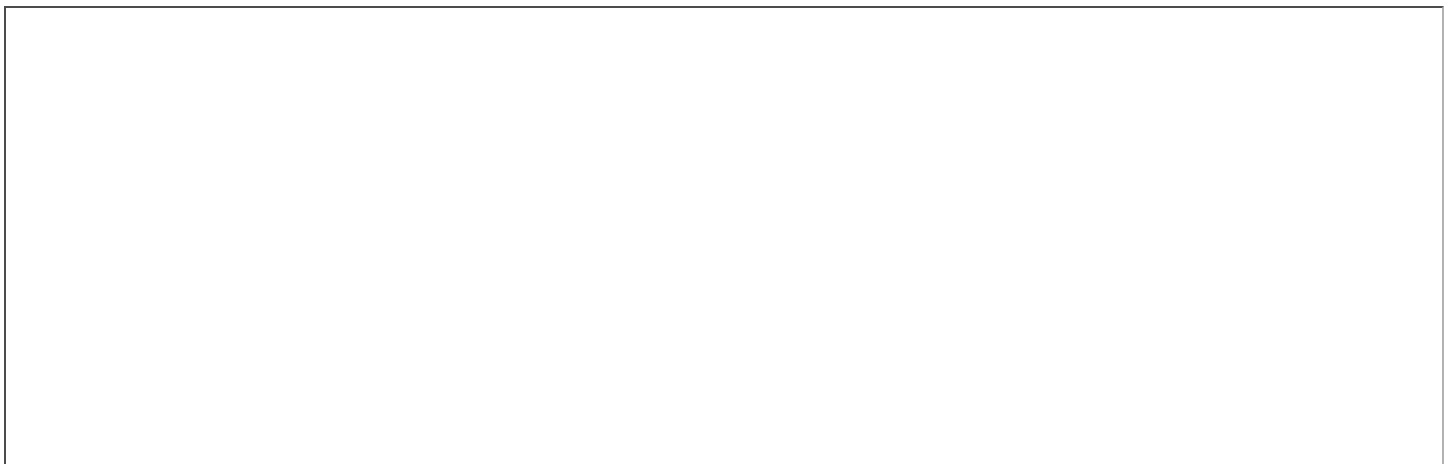
xyz tile addresses

3 - Open QGIS (3.0) and ensure your browser window is open. You will see the xyz tile option about three-quarters the way down the list.



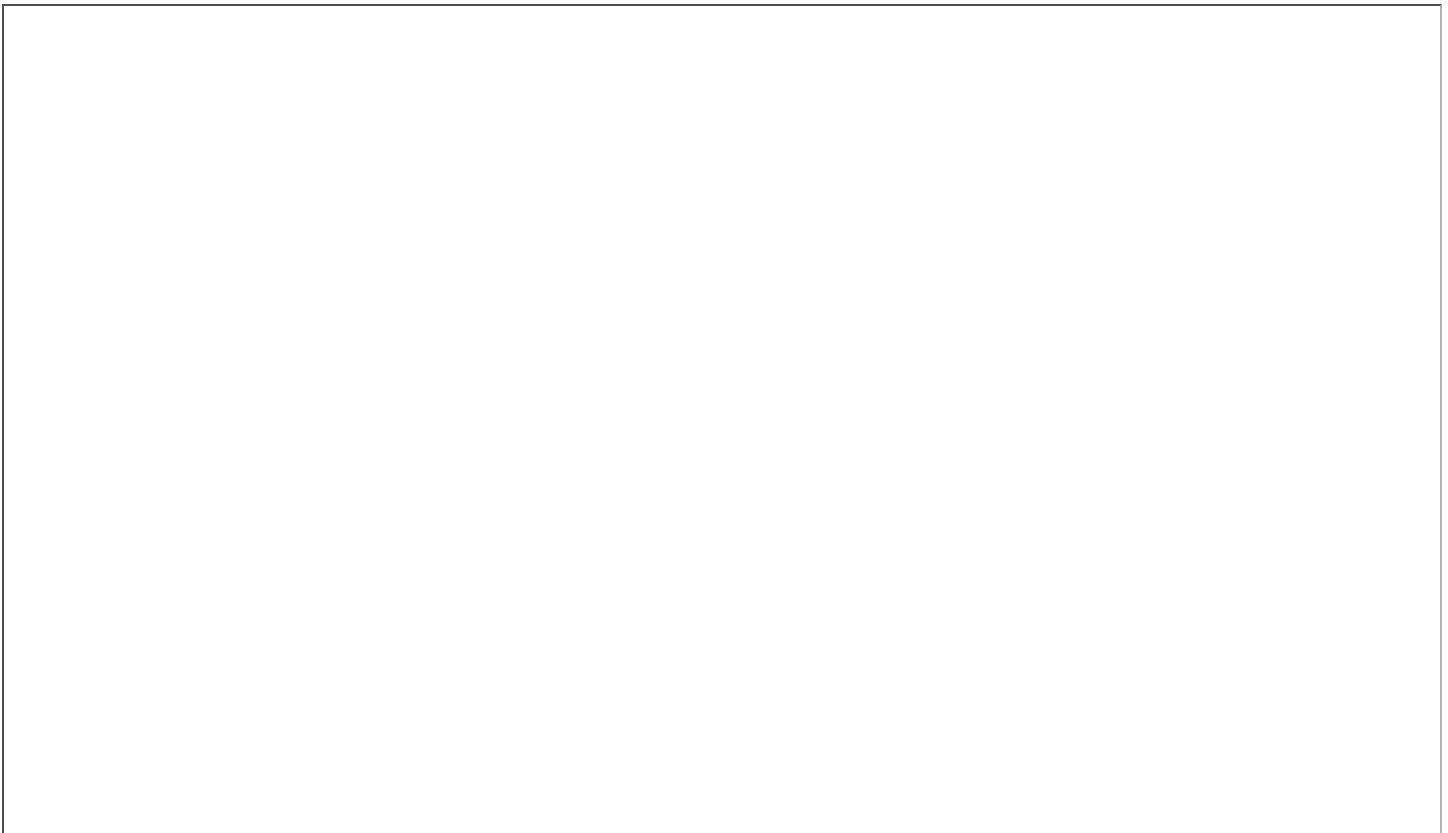
xyz tile option

4 - Select the “new connection” option, and, you guessed it, we are going to use the information from the web page and put it into the relevant boxes.
ONE IMPORTANT NOTE: Ensure you remove the “\$” symbols before copy and pasting them over.





5 - Click okay, and away you go!



Voila!

Now that you know how, you can go through the list and add the rest of the services.

| Layer | xyz web URL |
|-------------------------------------|---|
| OpenStreetMap's Standard tile layer | https://a.tile.openstreetmap.org/{z}/{x}/{y}.png OR https://b.tile.openstreetmap.org/{z}/{x}/{y}.png OR https://c.tile.openstreetmap.org/{z}/{x}/{y}.png |
| Wikimedia Maps | https://maps.wikimedia.org/osm-intl/{z}/{x}/{y}.png |
| OpenCycleMap | http://a.tile.opencyclemap.org/cycle/{z}/{x}/{y}.png OR http://b.tile.opencyclemap.org/cycle/{z}/{x}/{y}.png |
| Humanitarian map style | http://a.tile.openstreetmap.fr/hot/{z}/{x}/{y}.png OR http://b.tile.openstreetmap.fr/hot/{z}/{x}/{y}.png |
| OSM France | http://a.tile.openstreetmap.fr/osmfr/{z}/{x}/{y}.png OR http://b.tile.openstreetmap.fr/osmfr/{z}/{x}/{y}.png OR http://c.tile.openstreetmap.fr/osmfr/{z}/{x}/{y}.png |
| OpenSkiMap | http://tiles.skimap.org/openskimap/{z}/{x}/{y}.png |

| | |
|----------------------------|---|
| OpenSeaMap | http://tiles.openseamap.org/seamark/{z}/{x}/{y}.png |
| waymarkedtrails | https://tile.waymarkedtrails.org/hiking/{z}/{x}/{y}.png |
| Cycling routes | https://tile.waymarkedtrails.org/cycling/{z}/{x}/{y}.png |
| Hike & Bike | http://toolserver.org/tiles/hikebike/{z}/{x}/{y}.png |
| Hillshading | http://c.tiles.wmflabs.org/hillshading/{z}/{x}/{y}.png |
| OSM B&W | https://tiles.wmflabs.org/bw-mapnik/{z}/{x}/{y}.png or https://a.tiles.wmflabs.org/bw-mapnik/{z}/{x}/{y}.png OR https://b.tiles.wmflabs.org/bw-mapnik/{z}/{x}/{y}.png OR https://c.tiles.wmflabs.org/bw-mapnik/{z}/{x}/{y}.png |
| OSM no labels | https://tiles.wmflabs.org/osm-no-labels/{z}/{x}/{y}.png or https://a.tiles.wmflabs.org/osm-no-labels/{z}/{x}/{y}.png OR https://b.tiles.wmflabs.org/osm-no-labels/{z}/{x}/{y}.png OR https://c.tiles.wmflabs.org/osm-no-labels/{z}/{x}/{y}.png |
| Stamen Toner | http://a.tile.stamen.com/toner/{z}/{x}/{y}.png |
| Stamen Watercolor | http://c.tile.stamen.com/watercolor/{z}/{x}/{y}.jpg |
| Transport Map | http://a.tile2.opencyclemap.org/transport/{z}/{x}/{y}.png OR http://b.tile2.opencyclemap.org/transport/{z}/{x}/{y}.png |
| Thunderforest Landscape | http://a.tile.thunderforest.com/landscape/{z}/{x}/{y}.png OR http://b.tile.thunderforest.com/landscape/{z}/{x}/{y}.png OR http://c.tile.thunderforest.com/landscape/{z}/{x}/{y}.png |
| Thunderforest Outdoors | http://a.tile.thunderforest.com/outdoors/{z}/{x}/{y}.png OR http://b.tile.thunderforest.com/outdoors/{z}/{x}/{y}.png OR http://c.tile.thunderforest.com/outdoors/{z}/{x}/{y}.png |
| pnvkarte | http://toolserver.org/~cmarqu/hill/{z}/{x}/{y}.png |
| OpenPtMap | http://www.openptmap.org/tiles/{z}/{x}/{y}.png |
| CartoïLight (“Positron”) | https://cartodb-basemaps-{s}.global.ssl.fastly.net/light_all/{z}/{x}/{y}.png |
| CartoïDark (“Dark Matter”) | https://cartodb-basemaps-{s}.global.ssl.fastly.net/dark_all/{z}/{x}/{y}.png |

OpenRailwayMap

<http://a.tiles.openrailwaymap.org/standard/{z}/{x}/{y}.png> OR <http://b.tiles.openrailwaymap.org/standard/{z}/{x}/{y}.png> OR <http://c.tiles.openrailwaymap.org/standard/{z}/{x}/{y}.png>

Here is a list so that you can copy and paste them directly 😊

Dragons8mycat



Article by Nicholas Duggan FRGS Cgeog (GIS)

A Chartered Geographer with more than 15 years experience in GIS, data management, and geospatial innovation, Nicholas has consulted and provided work for most industry sectors such as offshore & onshore renewables, environmental, maritime archaeology, offshore & onshore survey, land management, public rights of way, demography, shipping, and traffic management. Nicholas currently is the CTO of the end-to-end geospatial solutions company The Carto Group, Follow him on twitter: @dragons8mycat His LinkedIn profile is here: <https://uk.linkedin.com/in/dragons8mycat>

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