

# Very concise instruction for QGIS

## Download the latest QGIS version:

Go to <http://qgis.com/>

- latest version is 3.22

## First we need to add dynamic maps:

Go to the window in the upper left side of the QGIS window

### Add xyz-tiles

1. Right-click on the field 'XYZ Tiles' and select 'New connection'

Enter a suitable name and insert these links in the field below:

- Positron map:

[https://cartodb-basemaps-a.global.ssl.fastly.net/light\\_all/{z}/{x}/{y}.png](https://cartodb-basemaps-a.global.ssl.fastly.net/light_all/{z}/{x}/{y}.png)

- Open topomaps:

<https://tile.opentopomap.org/{z}/{x}/{y}.png>

- Open Street Map

<http://a.tile.openstreetmap.org/{z}/{x}/{y}.png>

- Google Maps

<http://mt0.google.com/vt/lyrs=r&hl=en&x={x}&y={y}&z={z}>

- Google Imagery (satellite photo)

<http://mt0.google.com/vt/lyrs=y&hl=en&x={x}&y={y}&z={z}&s=Ga>

3. Save the file

### Add WMS map

1. Right-click on the field 'WMS / WMTS' and select 'New connection'

Enter a suitable name and insert these links in the field below:

- Historical maps, the Mapping Authority

<https://wms.geonorge.no/skwms1/wms.historiskekart?>

- Topographic map, greyscale

<https://openwms.statkart.no/skwms1/wms.topo4.graatone?>

- Topographical map of Norway

<https://openwms.statkart.no/skwms1/wms.topo4?>

- Land register

<https://openwms.statkart.no/skwms1/wms.matrikkel>

3. Save the file

4. Add WMS map by clicking on the name of the desired map.

a globe with the name after opens up below - double click on the globe

and the map appears in the central window and a line with the map name in  
in the 'Create' window below on the left.

4. Add xyz maps by double-clicking on the name of the desired map

and the map appears in the central window and a line with the map name in  
in the 'Create' window below on the left.

**Tip! Always start a new GIS theme by selecting a xyz map, otherwise the map may twist.**

## Add QuickMapServices

1. Go to 'Plugins' in the top tab and select 'Handling and installing plugins'

2. Search for 'QuickMapServices' in the 'All' plugins.

- Select the 'QuickMapServices' extension and click 'Install plugins'
- QuickMapServices is then installed and ready for use
- Go to 'Web' in the top tab and select QuickMapServices and select the map theme you want,

e.g. 'ESRI Topo' during the 'ESRI' map series

3. If you want to limit the number of map themes, go to 'Settings' in Web> QuickMapServices and select or deselect map providers under the 'Visibility' tab.

## Coordinate Reference System (CRS):

EPSG: 4326, WGS84 ("Google Standards").

## Create layers

1. Create a folder for the place name layers in an appropriate place,

for example: in a new folder 'GIS' in the folder 'Documents'

2. Create a layer:

Layer> Create Layer> New Shape File Layer

Click on the square to the right of the 'File name' field. Find your place name layer folder (eg folder 'GIS' in 'Documents'). Write the name of the file, for example 'Jøsenfjord stadnamn'

4. Set 'Character Set' to UTF-8

5. Set 'Geometry type' to point

6. Set 'EPSG' to EPSG: 4326

7. Add fields to your place name layer, for example:

Name: 'Name' / Type: 'Text data' / Length: '80'

click: 'Add to Fields List'

Name: 'Locality type' / Type: 'Text data' / Length: '80'

click: " Add to Fields List ' / Add to Fields List'

Name: 'Cadastral No.' / Type: 'Text data' / Length: '20'

click: 'Add to Fields List'

8. Click 'OK'

## Edit layer:

1. Click on your place name layer in the 'Layers' window at the bottom left, so that it is marked (in grey). Right click and:

2. Click: Create> Turn Editing On / Off

(and there is a yellow pencil in front of the place name layer)

Click: Edit> Add point feature

(or click Ctr +.)

And now you see a target - put it in the place you want to place the point and click.

4. A window will appear with fields for entering the fields you have previously defined.

Fill in the relevant fields and Click 'OK' at the end.

5. When point allocation is complete, click on:

Create> Turn editing on / off, and you will be asked if you want to save your work. Click 'Save' and yellow pencil in front of the place name layer disappears.

## Save map and layer (Project):

If you want to shut down QGIS but have the option to start where you left off last, you can do this:

1. Save your entire 'project' by clicking on the disk at the top left.
2. A pathfinder window appears. Locate your 'GIS' folder in 'Documents' and

Save the project under an appropriate name.

Then you will always be able to get maps and create them immediately without having to load them one by one each time.

## Save a single layer

Layer> Save As> Save Vector Layer As

And then fill in the file name (click on the square on the right next to the file name and find the path to your folder). And then you make sure that the window looks like this with regard to the fields Format (ESRI shapefile), KRS (EPSG: 4326), Character set (UTF-8) and that there is a check mark in 'Add to saved file in map':

Lagre vektorlag som...

Format: ESRI-shapefil

Filnavn:

Lagnavn:

KRS: EPSG:4326 - WGS 84

Navn	Type
<input checked="" type="checkbox"/> ALLE_23L_	Integer64
<input checked="" type="checkbox"/> KARTID	String

Velg alle      Fravelg alle

▼ Geometri

Geometritype: Automatisk

☐ Tving flerdelt geometritype

☐ Inkluder Z-akse

► ☐ Utstrekning (gjeldende: lag)

▼ Laginnstillinger

RESIZE: NO

SHPT:

▼ Egendefinerte innstillinger

Datakilde:

Lag:

☒ Legg til lagret fil i kart

OK Cancel Help

The stored layer consists of 5-6 different individual files that only work together. They are therefore not appropriate to send to others. In that case, it is better to save the layer as a geojson or a text file (CSV file).

## Save as text file:

Layer> Save As> Save Vector Layer As

Fill in the file name (click on the square on the right next to the file name and find the path to your folder). And then you make sure that the window looks like this with regard to the fields Format (Comma separated value (CSV), KRS (EPSG: 4326), Character set (UTF-8), Geometry (AS\_XY), Separator (TAB) and that there is NO check box in 'Add to saved file in map':

Lagre vektorlag som...

Format: Comma Separated Value [CSV]

Filnavn:

Lagnavn:

KRS: EPSG:4326 - WGS 84

Tegnsett: UTF-8

☐ Lagre kun valgte objekt

▼ Hvilke felt skal eksporteres, samt eksportinnstillinger

Navn	Type
<input checked="" type="checkbox"/> ALLE_23L_	Integer64
<input checked="" type="checkbox"/> KARTID	String

Velg alle Fravelg alle

▼ Geometri

Geometritype: Automatisk

☐ Tving flerdelt geometritype

☐ Inkluder Z-akse

► ☐ Utstrekning (gjeldende: lag)

▼ Laginnstillinger

CREATE\_CSVT: NO

GEOMETRY: AS\_YX

LINEFORMAT: <Standard>

SEPARATOR: TAB

STRING\_QUOTING: IF\_AMBIGUOUS

WRITE\_BOM: NO

▼ Egendefinerte innstillinger

Datakilde:

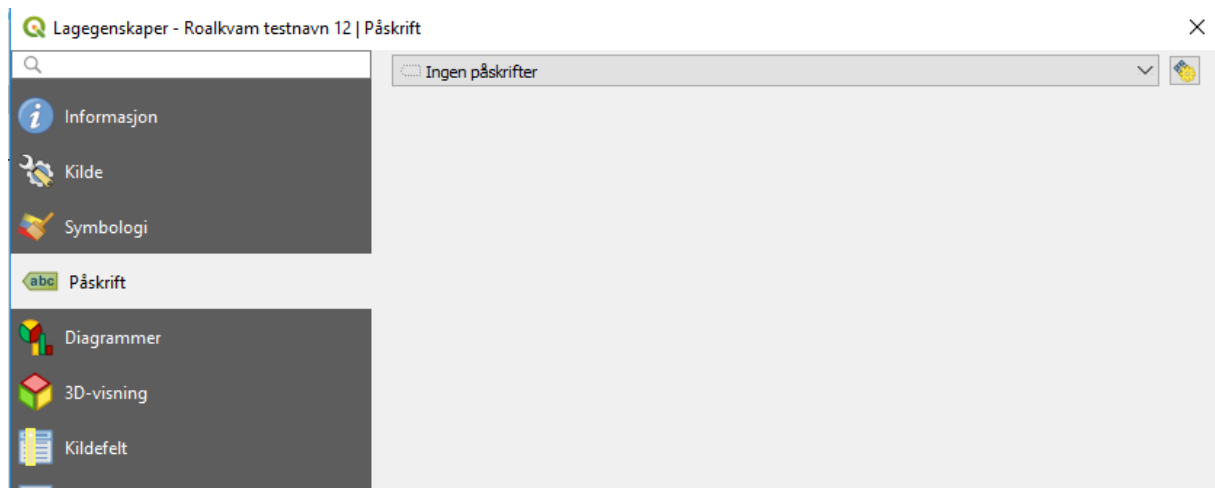
☐ Legg til lagret fil i kart

OK Cancel Help

Go to the folder where you saved the csv file and there is a single file with explicit coordinates that can be distributed to others.

## Add object labels on the map

Go to: Layers> Layer Properties

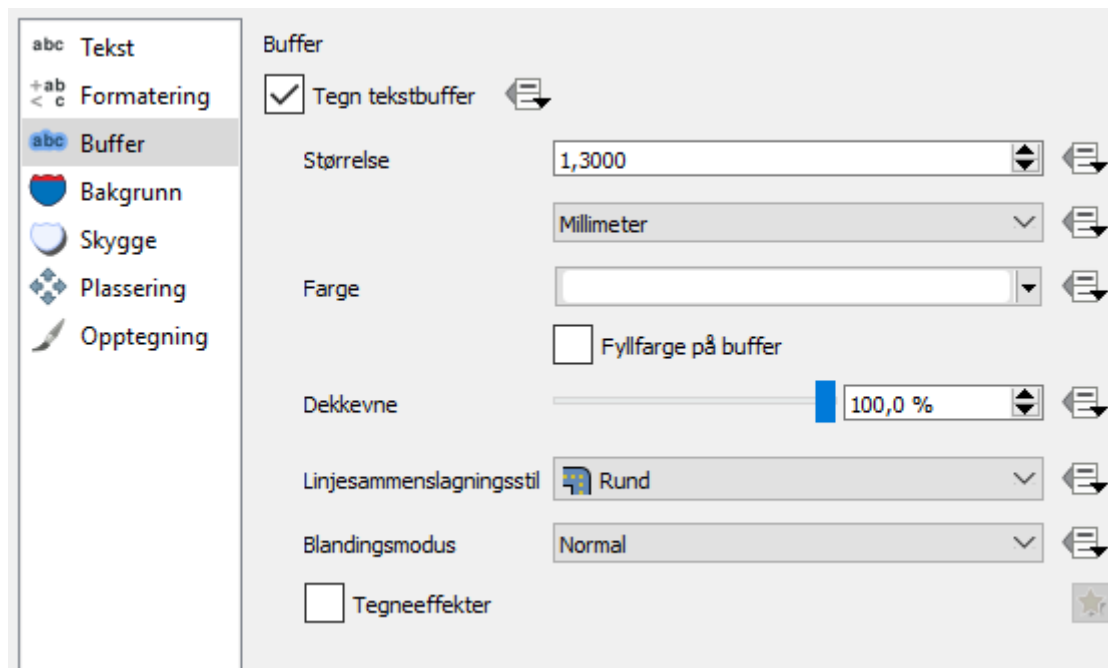


In the tab on the left, select the column 'Label'

Click on the tab to the right of the image and change from 'No labels' to 'Simple labels' and this will appear in the field:







And with this appearance as result:



By selecting 'Shadow' you get a floating effect on your inscription:



How to create shadow:

abc

Tekst

+ab

<c

Formatering

abc

Buffer

Bakgrunn

Skygge

Plassering

Opptegning

Skygge

☒

Tegn skygge

Tegn nedenfor

Laveste påskriftskomponent

Forskyvning

135°

1,3000

Millimeter

☒

Bruk global skygge

Sløringsradius

1,500000

Millimeter

☐

Slør kun alfa-piksler

Dekkevne

70,0 %

Målestokk

100 %

Farge

Blandingsmodus

Multipliser

The point is still seen to be a little too close to the point, you can change that by selecting 'Location' and set the distance to what you want, for example a distance of 1.5 from the center of the point:

abc

Tekst

+ab

<c

Formatering

abc

Buffer

Bakgrunn

Skygge

Plassering

Opptegning

Plassering

☐

Kartografisk

☒

Rundt punktet

☐

Forskyving fra punkt

Avstand

1,5000

Millimeter

Kvadrant

With this result



If you want to make a permanent placement of the inscription on the inscription, you can select 'Offset from point' in Location. Click on the tab for the desired location, for example at the bottom left:

abc Tekst  
+ab <c Formatering  
abc Buffer  
Bakgrunn  
Skygge  
Plassering  
Opptegning

Plassering

☐ Kartografisk ☐ Rundt punktet ☒ Forskyving fra punkt

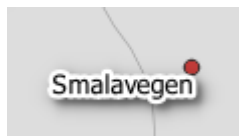
Kvadrant

Forskyvning X,Y 0,0000 0,0000

Millimeter

Rotasjon 0,00°

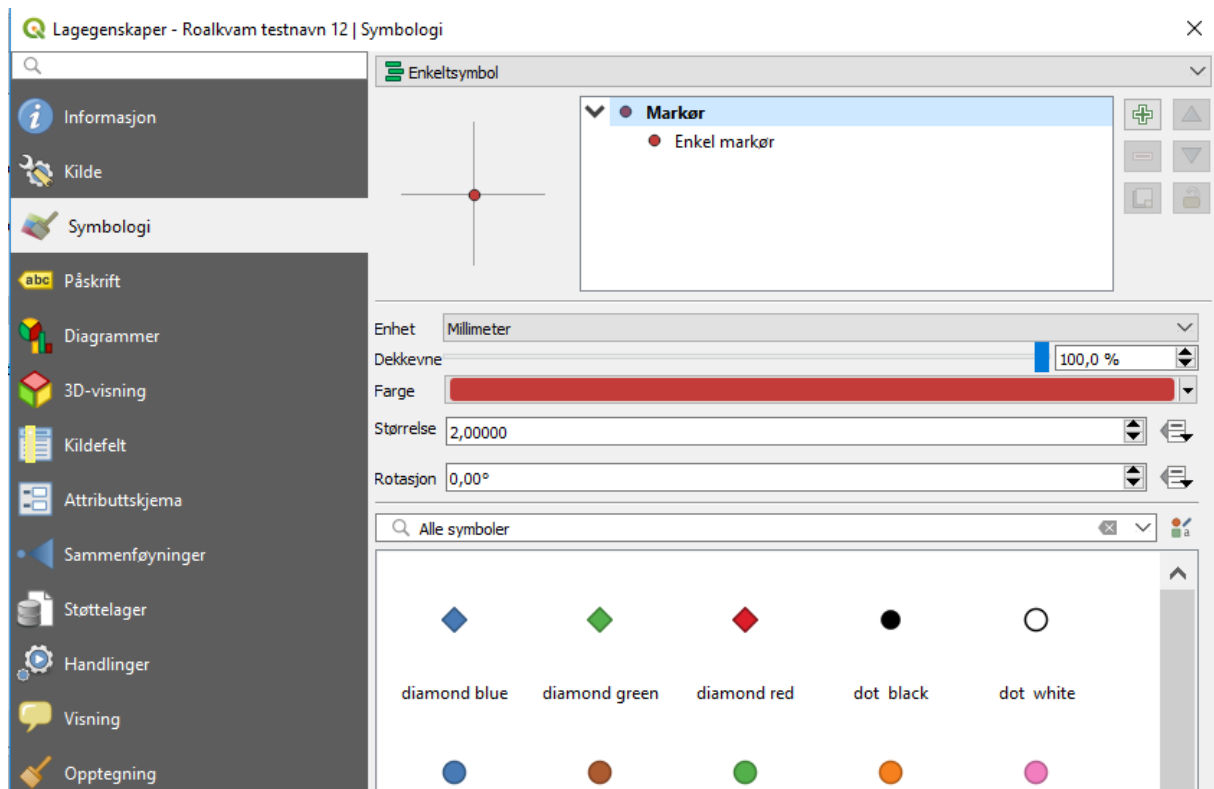
Then you get this result:



Click OK and the changes will appear on the map.

## Change the appearance of the point:

Go to: Layers> Layer Properties, select the 'Symbology' tab in the tab on the left.

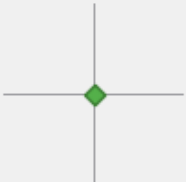


Select the color and appearance of the map points in the list below. For example, click on 'diamond green', with this result:









If you want a special size, look or color Select 'Simple Cursor'

Enkeltsymbol




▼ **Markør**


- ◆ Enkel markør

Type symboltag Enkel markør


Størrelse 3,000000 Millimeter

Fyllfarge 

Linjefarge 

Linjetype — Heltrukket linje


Linjebredde 0,400000 Millimeter

Sammenføyningsstil  Skrå

Rotasjon 0,00°

Forskyvning x 0,000000 y 0,000000 Millimeter

Ankerpunkt VMidten HMidten



Try reducing the size to 3 and the line color to black, and you will get this result:

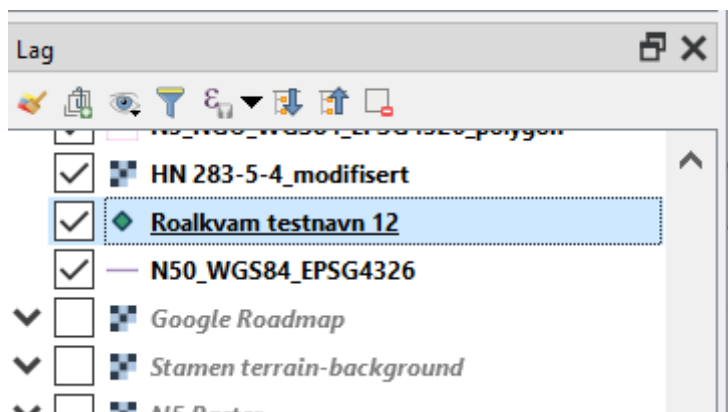


Click OK and the changes will appear on the map.

## Show object table

If you want to see what data content is linked to the points on a team, you can do the following:

Make sure you have made the team you want to ask in active:



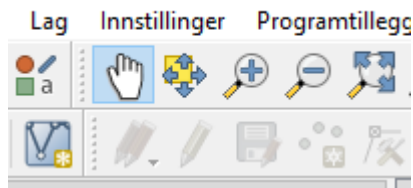
Then click on the info arrow in the tab above:



And then click on one of the points of the team, and the window 'Identify results' appears on the right:

Objekt	Verdi
▼ Roalkvam testnavn 12	
▼ id	
▼ (Avledet)	
(klikket koordinats X)	764534.9
(klikket koordinats Y)	8323190.9
Objekt-ID	4
X	764535.0
Y	8323191.3
▼ (Handler)	
Vis objektskjema	
Y	59,6543942065035
X	6,86793450756811
id	
Stedsnavn	Smalavegen
Kommune	Suldal
Matrikkel	65/2

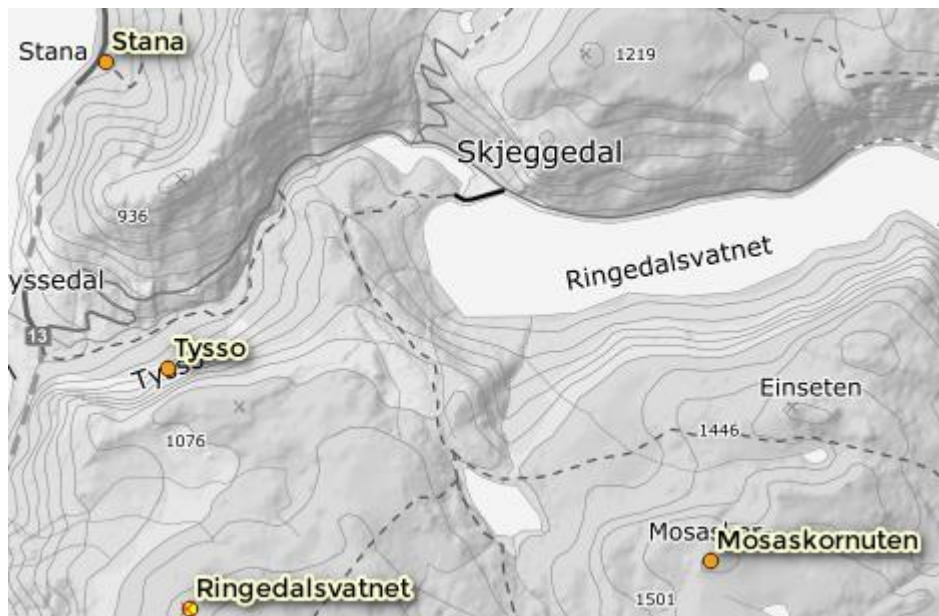
If you do not want to see the tab anymore, click on the cross in the top corner. And click on the hand in the tab above, so you can maneuver around with the map:



(you can of course also select another button in the tab).

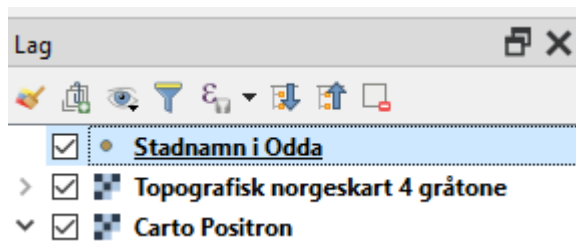
## Moving a misplaced object

In the picture below you can see that the place name Ringedalsvatnet has been incorrectly placed on a mountain and not in the lake with its name



If you have placed a point in the wrong place, it can be corrected on the following set:

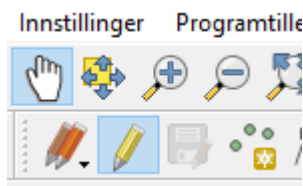
Activate the layer in which the misplaced point is located



2. Enter the team table and click on the line with the name you want to move:

	id	Navn
1	1	Tysso
2	2	Stana
3	3	Ringedalsvatnet
4	4	Mosaskornuten

Next, enable editing by clicking the yellow pencil button in the toolbar at the top:

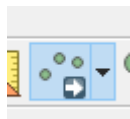


(or by right-clicking on the city name layer and selecting 'Turn on / off editing')

4. Then activate the 'Move object' button in the toolbar

- If you do not have the button on your toolbar, it can be activated from the tab at the top by selecting:

Viewing> Toolbars> Advanced Digitization



Two things show up on the map:

- The point for Ringedalsvatnet is shown in yellow with a red cross above
- Instead of a mouse arrow, there is now a cross

5. Place the intersection near the point for Ringedalsvatnet and click.

Then a red ring appears from the point to Ringedalsvatnet





Pull the ring up to where the point should be located and click once.

- then the point is moved to the right place.



6. Click on the save button for editing



when the save button turns grey, the changes are saved.



7. Then click on the yellow pencil button to finish.

