

3 Input data to Vector Layers

3.1 Preparation for Data Editing

3.2 Editing Data

3.3 Editing Geometry

Premise:

PostgreSQL

user

name='yokoi', password='yokoi'

(This can create new database)

database

name='valley' owned by user 'yokoi'

(This is connected to PostGIS)

tables

name=buildings, type=POINT

name=roads, type=LINESTRING

name=open_spaces, type=POLYGON

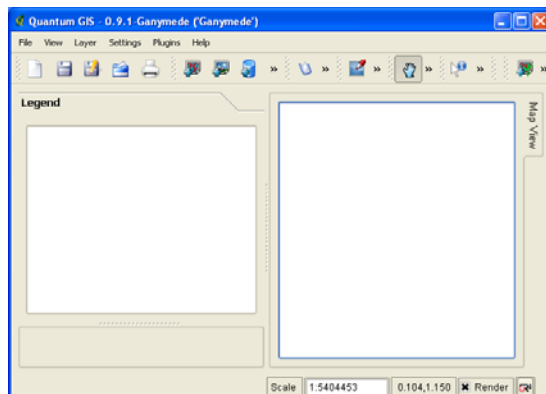
3.1 Preparation for Data Editing



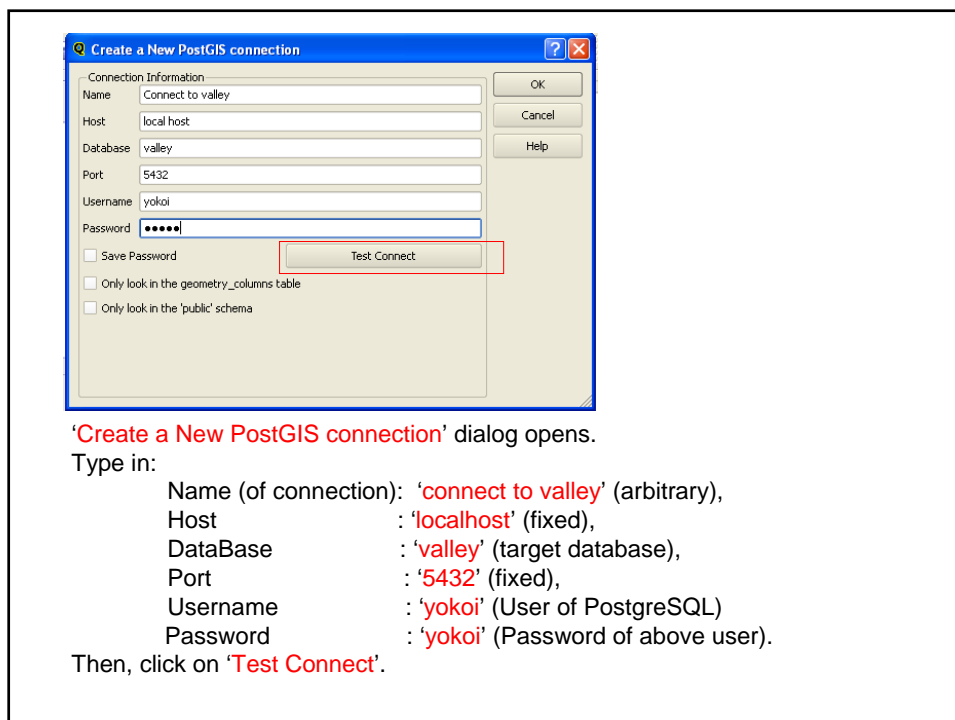
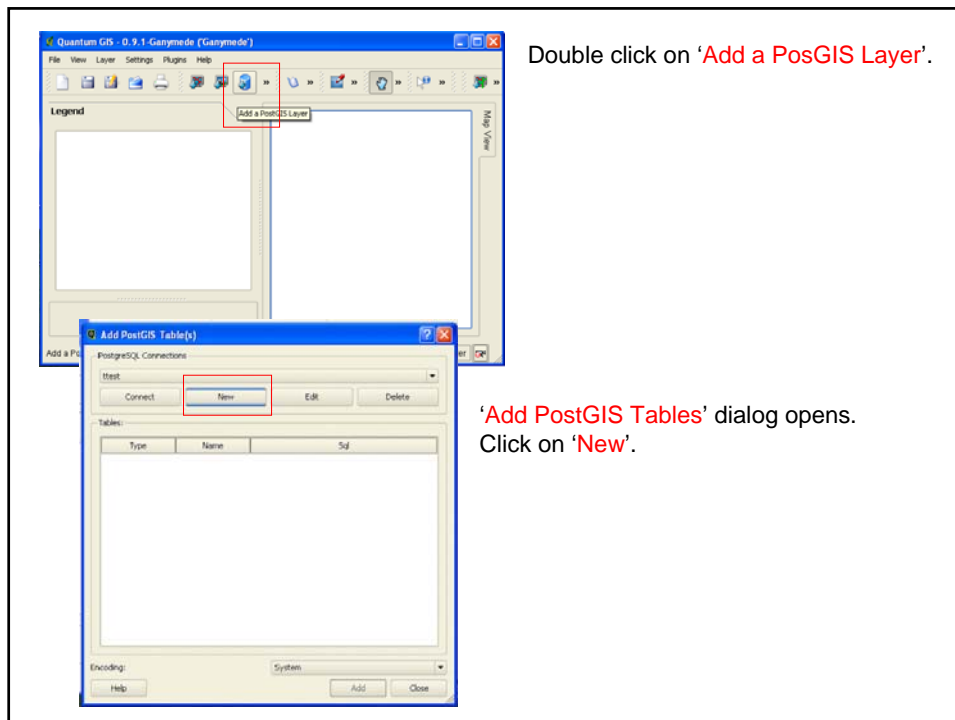
Double click on 'Quantum GIS' icon.

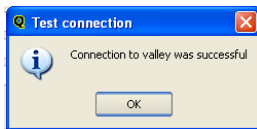


Logo of Quantum GIS appears.

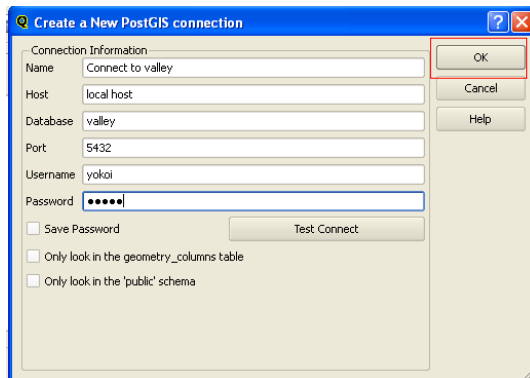


Then, Quantum GIS 0.9.1 starts.

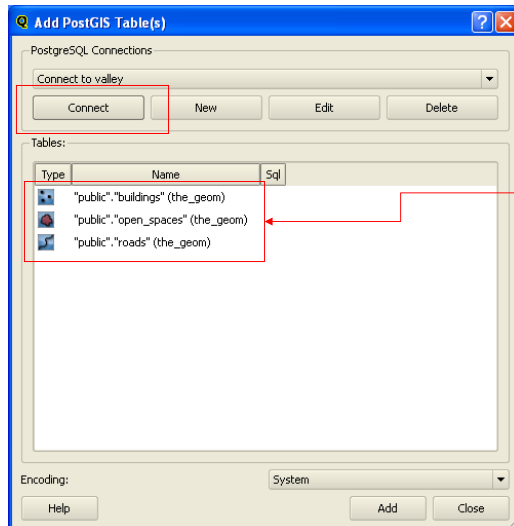




Click 'OK' if successfully connected.

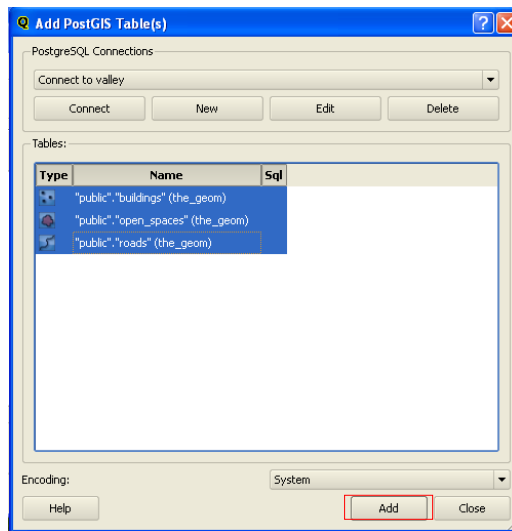


Then, click on 'OK'.

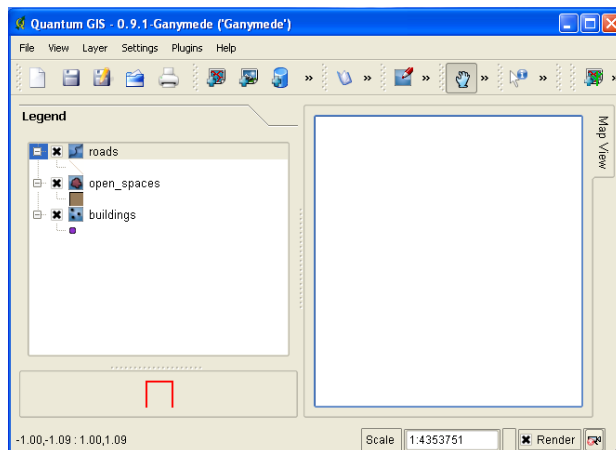


Click 'Connect'.

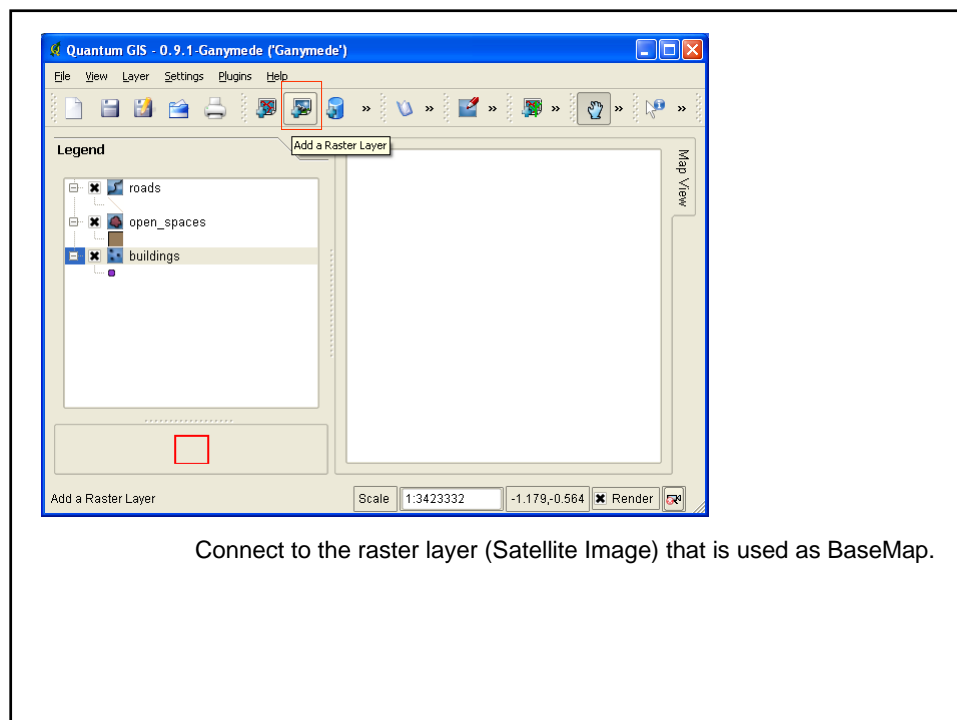
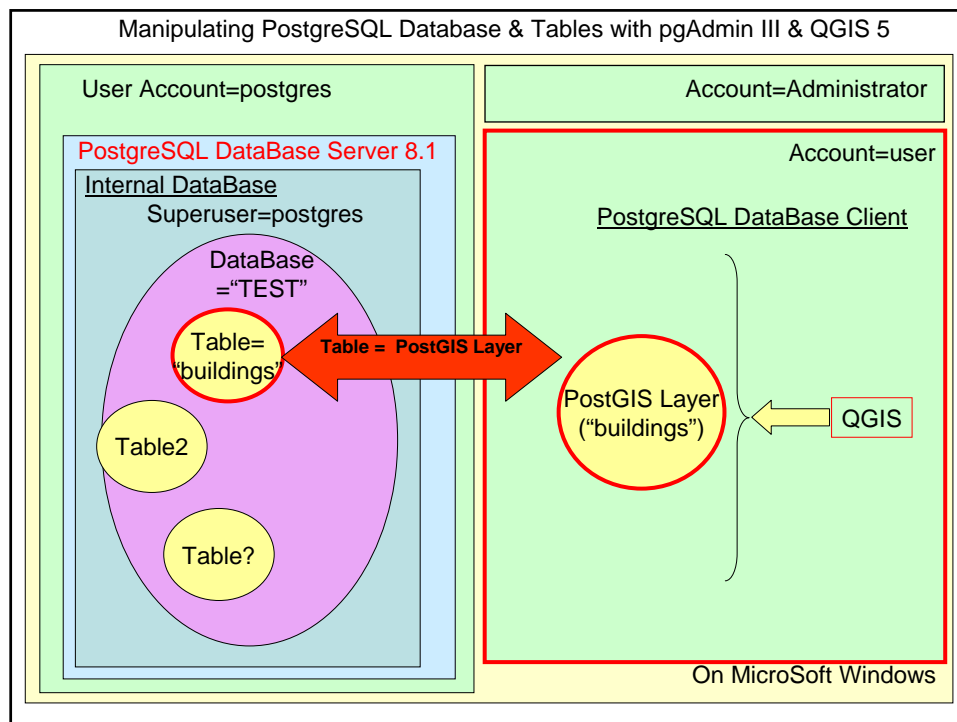
Then, three tables appear here.

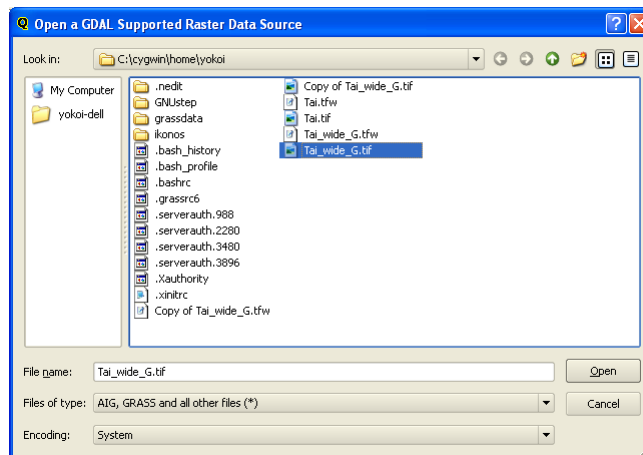


Select all these three tables and click on 'Add'.

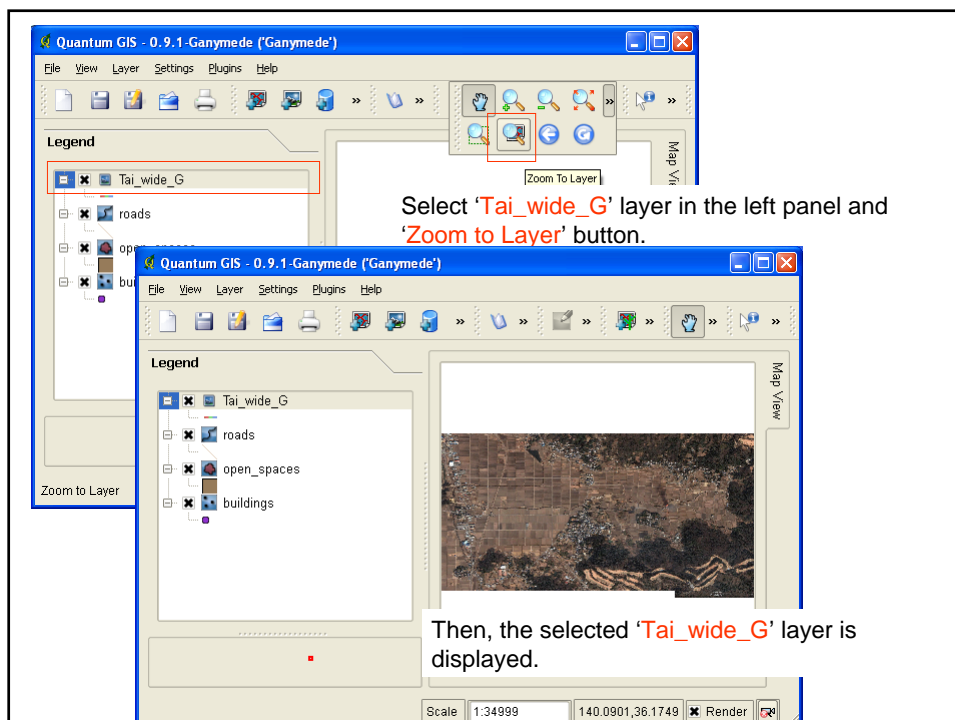


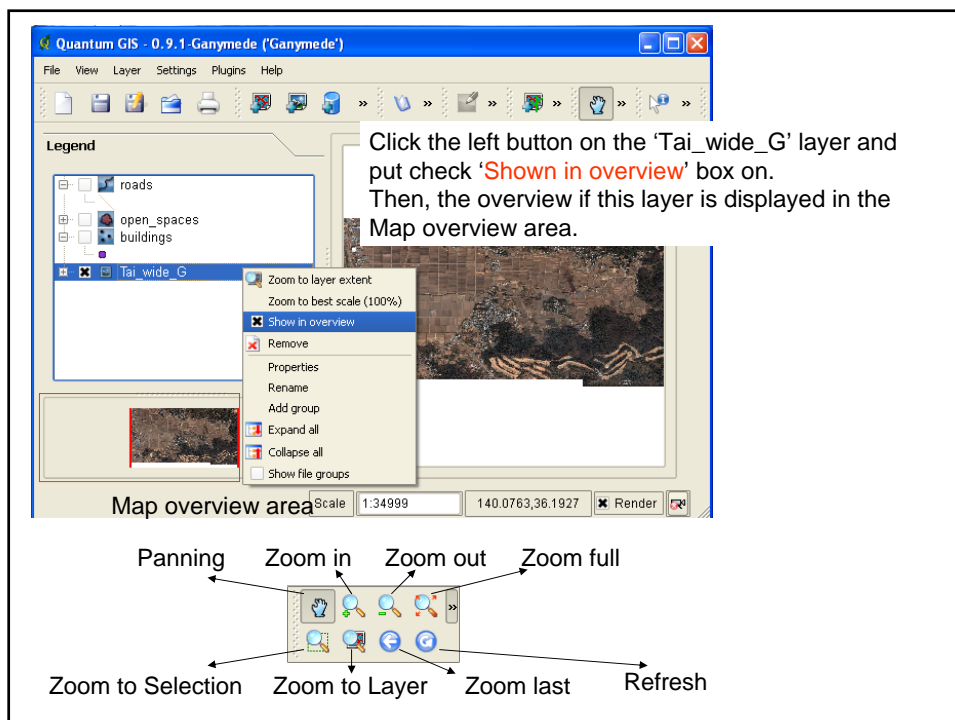
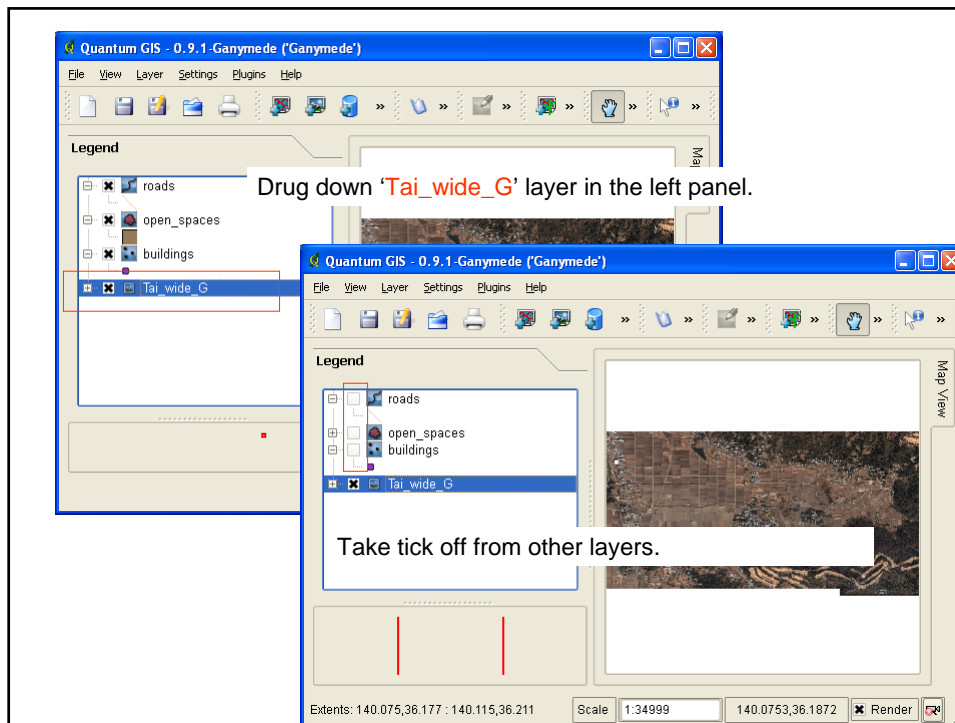
Three tables are connected to QGIS as vector layers.

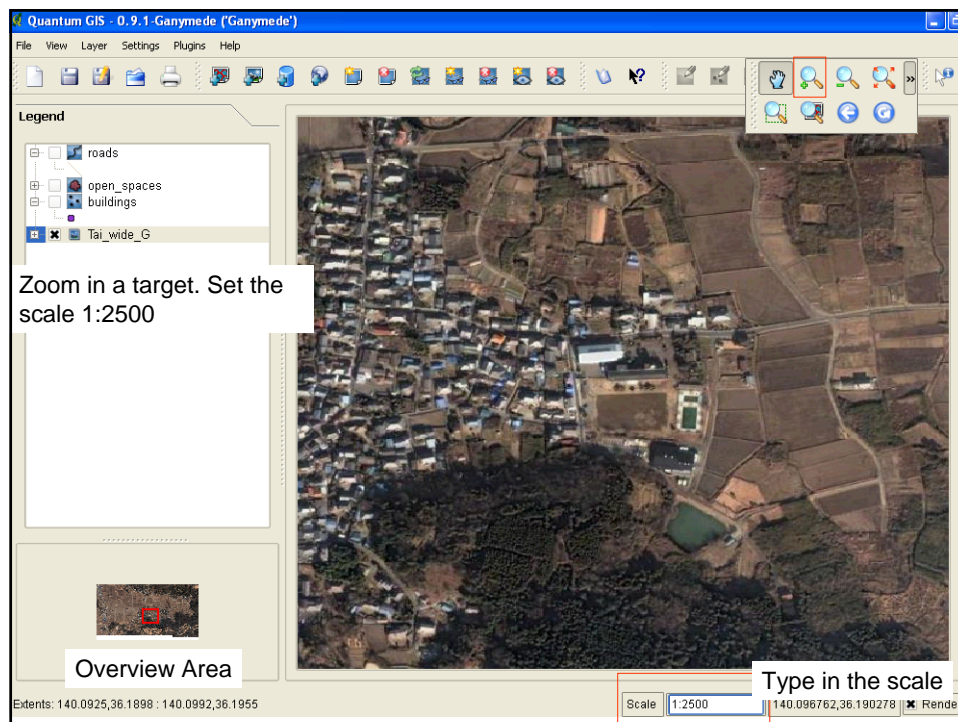




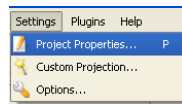
'**Tai_wide_G.tif**' is a GeoTiff file that was exported from GRASS after georeferencing and rectifying and also Pyramidized. Its georeferencing information is stored in '**Tai_wide_G.tifw**'. These two files compose a GeoTiff file.



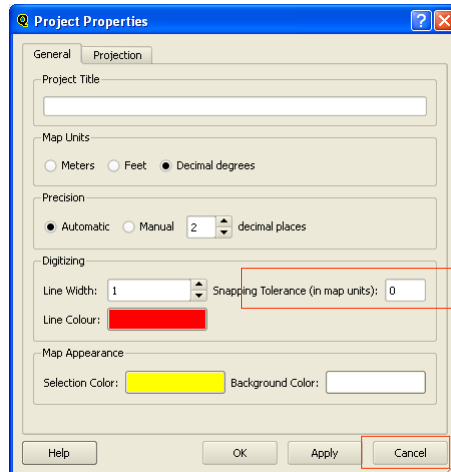




3.2 Editing Data



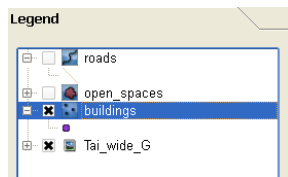
From 'Setting' in Menu bar select 'Project Properties'. Then, 'Project Properties' dialog appears.



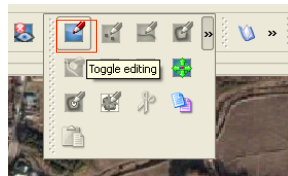
Confirm that the 'Snapping Tolerance' is set '0'.

Click on 'Toggle Editing' button to start data input.

Editing POINT data

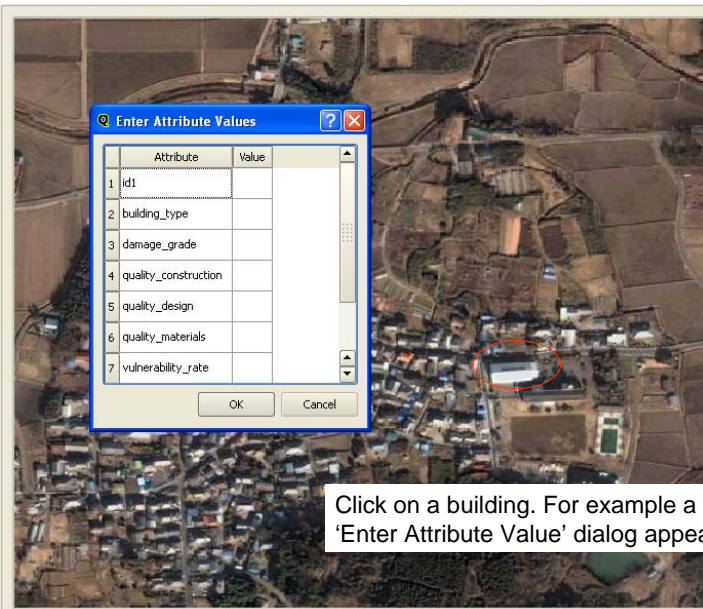
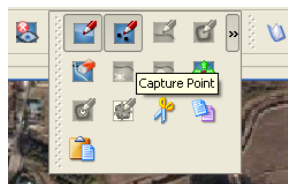


Select 'building' layer and put check box on.



Click on 'Toggle Editing' button to allow editing this layer. (By default QGIS loads layers read-only. 'Capture Point' button is put on simultaneously. If not click on 'Capture Point' button also.

Confirm that the cursor changes its shape to an aim mark.



Click on a building. For example a white color big roof. 'Enter Attribute Value' dialog appears.

Enter Attribute Values

	Attribute	Value
2	building_type	2
3	damage_grade	
4	quality_construction	0
5	quality_design	0
6	quality_materials	0
7	vulnerability_rate	
8	vulnerability_type	

OK Cancel

Type in the corresponding attribute values and click on 'OK'.



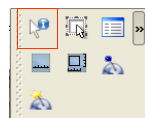
Note that a mark appears on the targeted building.

Stop editing

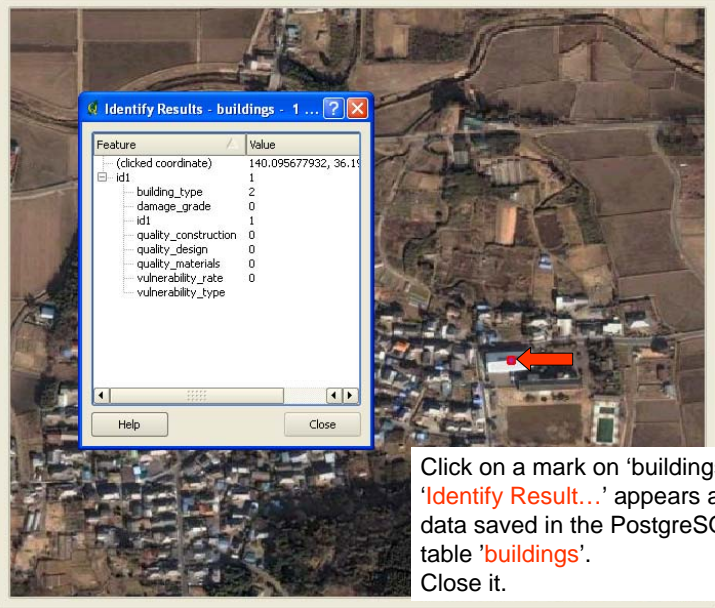
Do you want to save the changes?

Save Discard

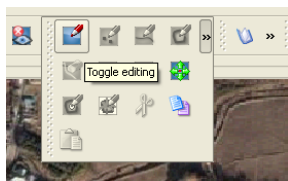
After typing in the data for all targeted buildings, click the 'Toggle editing' button again. Then, 'Stop editing' dialog appears. Click on 'Save' if everything goes well. The edited data are saved in PostgreSQL table 'buildings'.



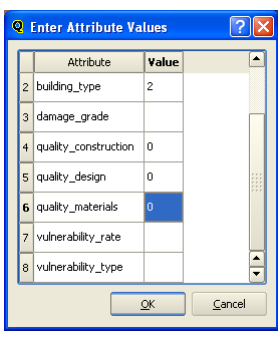
Click on 'Identify Feature' button.



Click on a mark on 'buildings' layer. Then, 'Identify Result...' appears and shows the data saved in the PostgreSQL table 'buildings'. Close it.

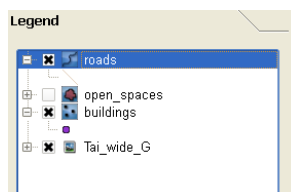


If you find a necessity to revise the data, click on 'Toggle editing' button.

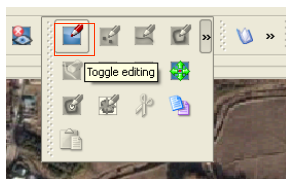


Then, edit the necessary part.

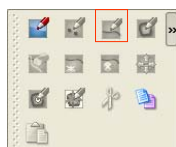
Editing LINESTRING data



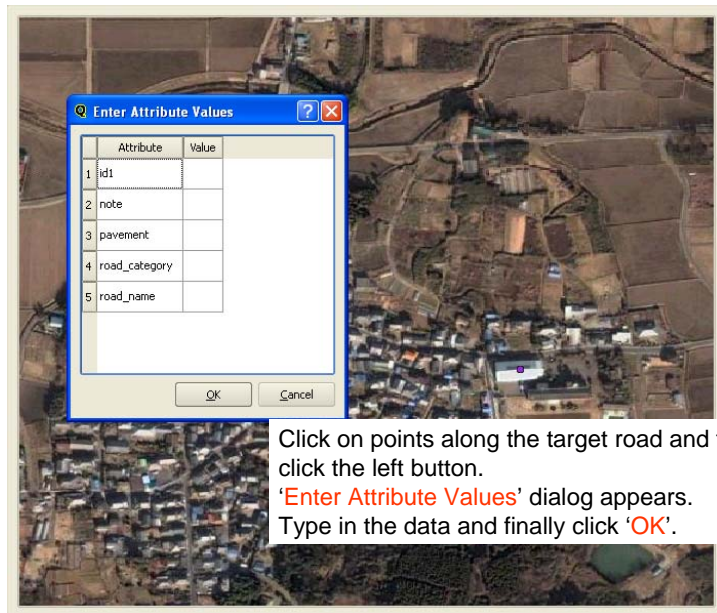
Select 'roads' layer and put check box on.



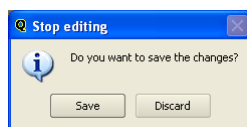
Click on 'Toggle Editing' button to allow editing this layer. (By default QGIS loads layers read-only. 'Capture Line' button is put on simultaneously. If not click on 'Capture Line' button also.



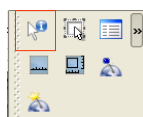
Confirm that the cursor changes its shape to an aim mark.



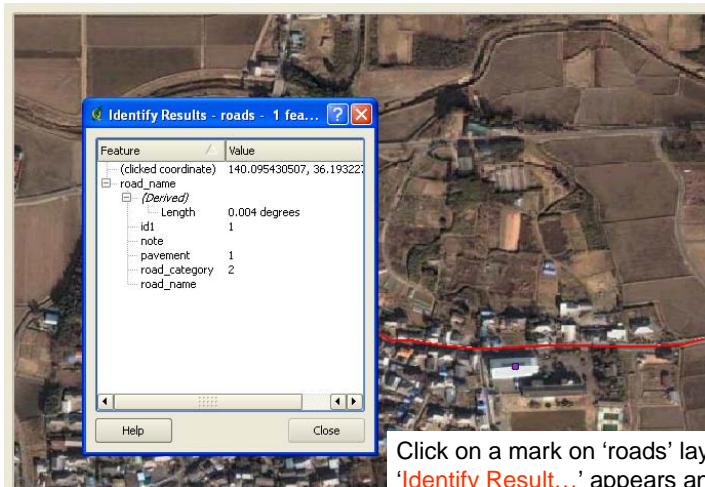
The targeted road and points (vertices) appear.



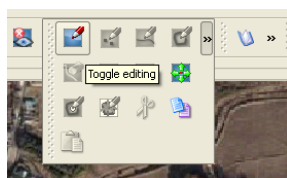
After typing in the data for all targeted roads, click the 'Toggle editing' button again. Then, 'Stop editing' dialog appears. Click on 'Save' if everything goes well. The edited data are saved in PostgreSQL table 'roads'.



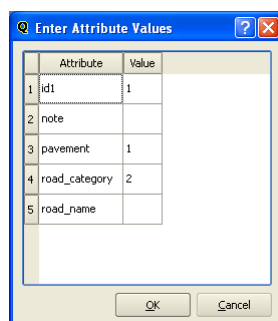
Click on 'Identify Feature' button.



Click on a mark on 'roads' layer. Then, 'Identify Result...' appears and shows the data saved in the PostgreSQL table 'roads'. Close it.

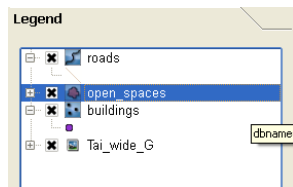


If you find a necessity to revise the data, click on 'Toggle editing' button.

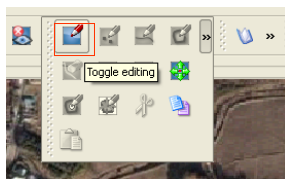


Then, edit the necessary part.

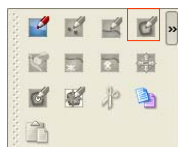
Editing POLYGON data



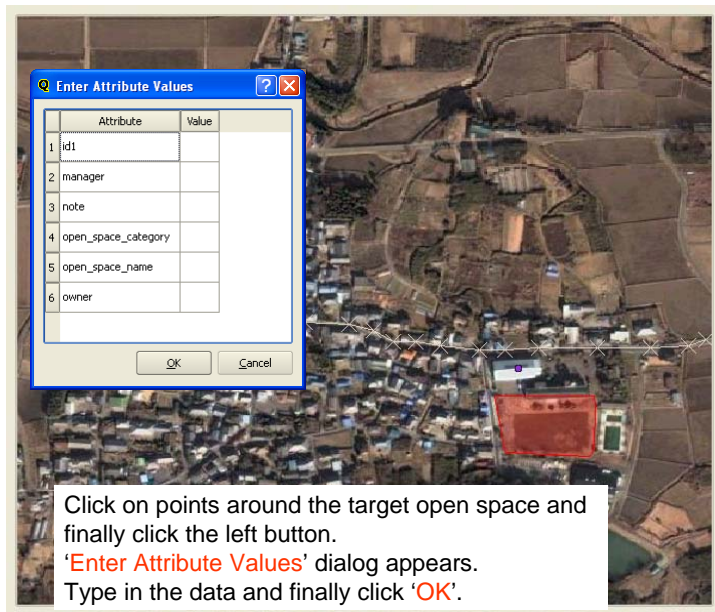
Select '**open_spaces**' layer and put check box on.



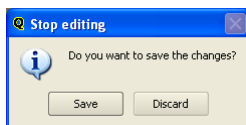
Click on '**Toggle Editing**' button to allow editing this layer. (By default QGIS loads layers read-only. '**Capture Polygon**' button is put on simultaneously. If not click on '**Capture Polygon**' button also.



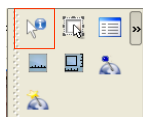
Confirm that the cursor changes its shape to an aim mark.



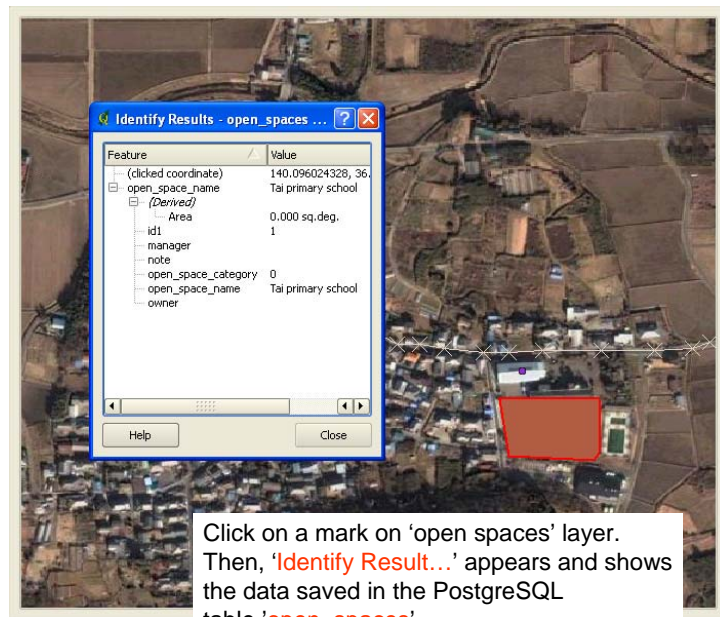
The targeted open space and points (vertices) appear.



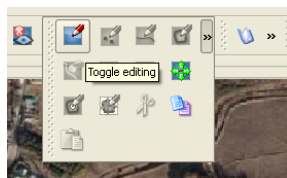
After typing in the data for all targeted roads, click the 'Toggle editing' button again. Then, 'Stop editing' dialog appears. Click on 'Save' if everything goes well. The edited data are saved in PostgreSQL table 'roads'.



Click on 'Identify Feature' button.



Click on a mark on 'open spaces' layer.
Then, 'Identify Result...' appears and shows
the data saved in the PostgreSQL
table 'open_spaces'.
Close it.



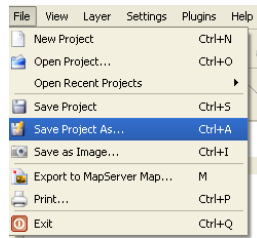
If you find a necessity to revise the data, click
on 'Toggle editing' button.

Enter Attribute Values

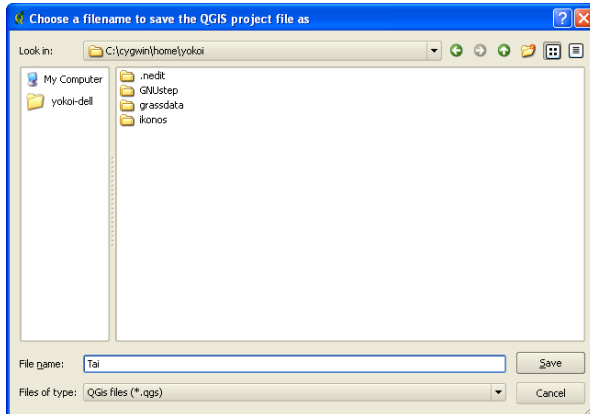
	Attribute	Value
1	id1	1
2	manager	
3	note	
4	open_spaces_category	0
5	open_spaces_name	Tai primary school
6	owner	

OK Cancel

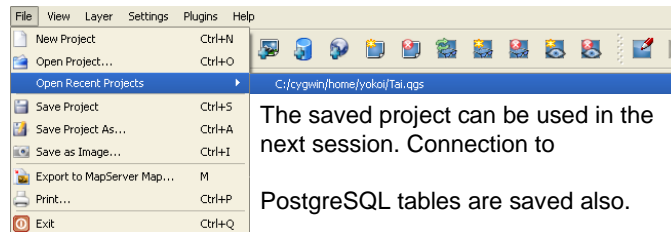
Then, edit the necessary part.



After completing the tasks for editing, 'File' and 'Save Project As'.

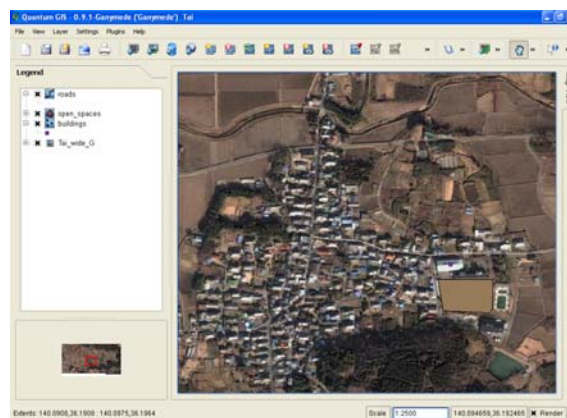


Save the project as 'Tai.qgs' in 'C:\cygwin\home\yokoi' for this example.



The saved project can be used in the next session. Connection to

PostgreSQL tables are saved also.



3.3 Editing Geometry

It is necessary to edit geometry of newly digitized vector layers except POINT type one.

PostGIS does have the functionality for editing geometry but command base. QGIS does not have the functionality for editing geometry.

GRASS does have the functionality for editing geometry in GUI base. and

It is possible to edit geometry of vector data from QGIS through its GRASS Edit Dialog.

First, PostgreSQL tables are imported to GRASS through PostGIS. Then, the imported layer is edited and exported from GRASS to PostgreSQL through PostGIS again. This topic will be explained later.

