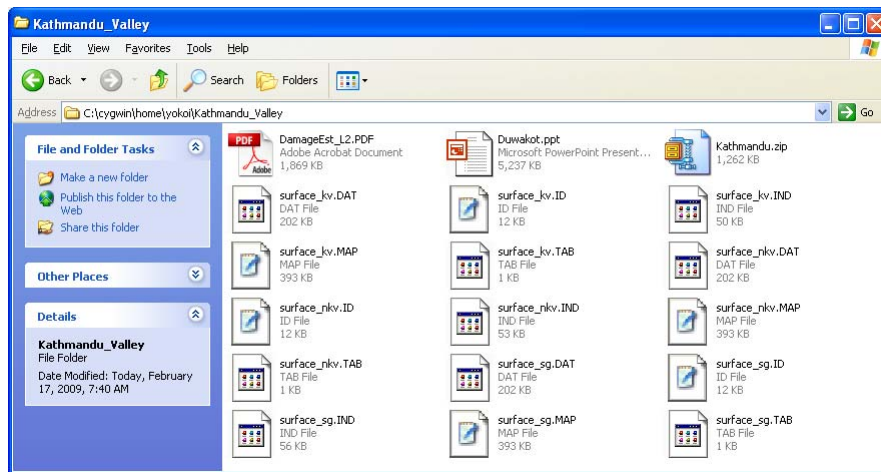


4 Importing/Exporting Vector Layer

- 4.1 Convert Map Info Tab to Shape file using FWTOOLS
- 4.2 Import Shape file into PostgreSQL using SPIT Plugin of QGIS and Export PostgreSQL table to a shape file
- 4.3 Import Shape file into QGIS
- 4.4 Load table of PostgreSQL created by the imported Shape file on QGIS
- 4.5 Convert Map Info Tab, ArcInfo Coverage or other vector formats to Shape file
- 4.6 Import PostGIS layer to GRASS and export GRASS vector map to PostGIS
- 4.7 Retrieve table of PostgreSQL to Excel using ODBC and PostgreSQL command
- 4.8 Import Excel worksheet to PostgreSQL

4.1 Convert Map Info Tab to Shape file using FWTOOLS

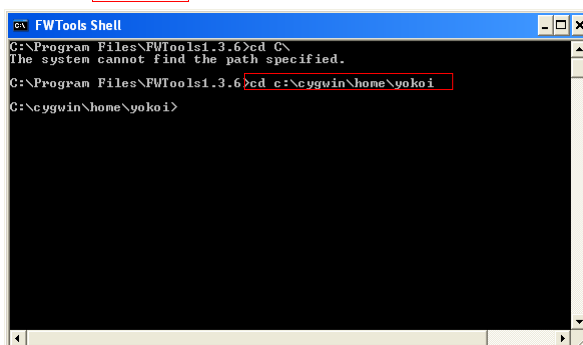


Examples of Map Info Tab files in 'C:¥Cygwin¥home¥yokoi¥Kathmandu_Valley'.
In this directory 'Kathmandu_Valley' there are three layers:

surface_kv
surface_nkv
surface_sg



Click on 'FWTools Shell' icon.



'FWTools Shell' command prompt starts.
Change directory to 'C:¥Cygwin¥home¥yokoi'.

cd C:¥Cygwin¥home¥yokoi

```

C:\Program Files\FWTools1.3.6>cd C\
The system cannot find the path specified.
C:\Program Files\FWTools1.3.6>cd c:\cygwin\home\yokoi
C:\cygwin\home\yokoi>ogrinfo Kathmandu_Valley
Had to open data source read-only.
INFO: Open of 'Kathmandu_Valley'
       using driver 'MapInfo File' successful.
1: surface_kv
2: surface_nkv
3: surface_sg
C:\cygwin\home\yokoi>_

```

List Map Info Tab layers in 'Kathmandu_Valley' directry.

ogrinfo Kathmandu_Valley

there are three layers:

- 1: surface_kv
- 2: surface_nkv
- 3: surface_sg

Convert a layer of Map Info Tab to Shape file using 'ogr2ogr' command.

Shape file name for output

Directory name of input data

Layer name of input data

ogr2ogr -f "ESRI Shapefile" surface_kv.shp Kathmandu_Valley surface_kv

```

C:\cygwin\home\yokoi>ogr2ogr -f "ESRI Shapefile" surface_kv.shp Kathmandu_Valley surface_kv
C:\cygwin\home\yokoi>dir
Volume in drive C has no label.
Volume Serial Number is 4B0A-859F

Directory of C:\cygwin\home\yokoi

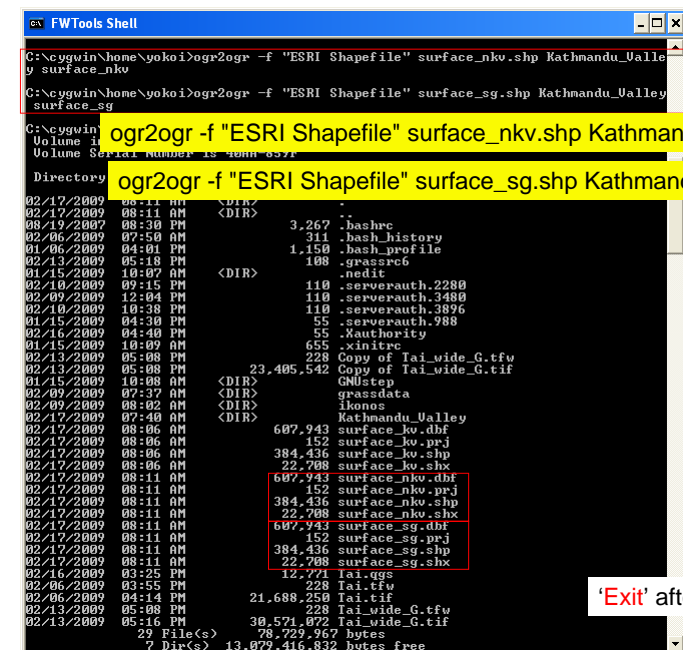
02/17/2009  08:06 AM  <DIR>          .
02/17/2009  08:06 AM  <DIR>          ..
08/19/2007  08:30 PM          3,267 .bashrc
02/06/2009  07:50 AM          311 .bash_history
01/06/2009  04:01 PM          1,150 .bash_profile
02/13/2009  05:13 PM          100 .grassrc6
01/15/2009  10:07 AM          <DIR>          .nedit
02/10/2009  09:15 PM          110 .serverauth.2280
02/09/2009  12:04 PM          110 .serverauth.3480
02/10/2009  10:38 PM          110 .serverauth.3896
01/15/2009  04:30 PM           55 .serverauth.988
02/16/2009  04:40 PM           55 .xauthority
01/15/2009  10:09 AM           655 .xinitrc
02/13/2009  05:08 PM          228 Copy of Tai_wide_G.tfw
02/13/2009  05:08 PM  23,405,542 Copy of Tai_wide_G.tif
01/15/2009  10:08 AM          <DIR>          GNUstep
02/09/2009  07:37 AM          <DIR>          grassdata
02/09/2009  08:02 AM          <DIR>          ikonos
02/17/2009  07:40 AM          <DIR>          Kathmandu_Valley
02/17/2009  08:06 AM  607,943 surface_kv.dbf
02/17/2009  08:06 AM    152 surface_kv.prj
02/17/2009  08:06 AM  384,436 surface_kv.shp
02/17/2009  08:06 AM  22,708 surface_kv.shx
02/16/2009  03:25 PM    12,771 Tai.qgs
02/06/2009  03:55 PM          228 Tai.tfw
02/06/2009  04:14 PM    21,688,250 Tai.tif
02/13/2009  05:08 PM    30,571,072 Tai_wide_G.tfw
02/13/2009  05:16 PM          21 File(s)      76,699,489 bytes
                  7 Dir(s)  13,081,513,984 bytes free

C:\cygwin\home\yokoi>_

```

Shape files are created

Convert other two layers to Shape file.



```
C:\cygwin\home\yokoi>ogr2ogr -f "ESRI Shapefile" surface_nkv.shp Kathmandu_Valley surface_nkv
C:\cygwin\home\yokoi>ogr2ogr -f "ESRI Shapefile" surface_sg.shp Kathmandu_Valley surface_sg

C:\cygwin\home\yokoi>ogr2ogr -f "ESRI Shapefile" surface_nkv.shp Kathmandu_Valley surface_nkv
C:\cygwin\home\yokoi>ogr2ogr -f "ESRI Shapefile" surface_sg.shp Kathmandu_Valley surface_sg

Directory of Kathmandu_Valley
02/17/2009 08:11 AM <DIR> ..
02/17/2009 08:11 AM <DIR> .
08/19/2007 08:30 PM 3,267 .bashrc
02/06/2009 07:50 AM 311 .bash_history
01/06/2009 04:01 PM 1,150 .bash_profile
02/13/2009 05:18 PM 108 .grassrc6
01/15/2009 10:07 AM <DIR> .nedit
02/10/2009 09:15 PM 110 .serverauth.2280
02/09/2009 12:04 PM 110 .serverauth.3480
02/10/2009 10:38 PM 110 .serverauth.3896
01/15/2009 04:30 PM 55 .serverauth.988
02/16/2009 04:40 PM 55 .ssh
01/15/2009 10:09 AM 655 .xinitrc
02/13/2009 05:08 PM 228 Copy of Tai_wide_G.tif
02/13/2009 05:08 PM 23,405,542 Copy of Tai_wide_G.tif
01/15/2009 10:08 AM <DIR> GNUstep
02/09/2009 07:37 AM <DIR> grassdata
02/09/2009 08:02 AM <DIR> ikonos
02/17/2009 07:40 AM <DIR> Kathmandu_Valley
02/17/2009 08:06 AM 687,943 surface_kv.dbf
02/17/2009 08:06 AM 152 surface_kv.prj
02/17/2009 08:06 AM 384,436 surface_kv.shp
02/17/2009 08:06 AM 22,708 surface_kv.shx
02/17/2009 08:11 AM 687,943 surface_nkv.dbf
02/17/2009 08:11 AM 152 surface_nkv.prj
02/17/2009 08:11 AM 384,436 surface_nkv.shp
02/17/2009 08:11 AM 22,708 surface_nkv.shx
02/17/2009 08:11 AM 687,943 surface_sg.dbf
02/17/2009 08:11 AM 152 surface_sg.prj
02/17/2009 08:11 AM 384,436 surface_sg.shp
02/17/2009 08:11 AM 22,708 surface_sg.shx
02/17/2009 08:11 AM 12,721 Tai.qgs
02/16/2009 03:25 PM 228 Tai.tif
02/06/2009 04:14 PM 21,688,250 Tai.tif
02/06/2009 03:55 PM 228 Tai_wide_G.tif
02/13/2009 05:08 PM 30,571,072 Tai_wide_G.tif
02/13/2009 05:16 PM 29 File(s) 78,729,967 bytes
7 Dir(s) 13,079,416,832 bytes free
```

'Exit' after completion of tasks.

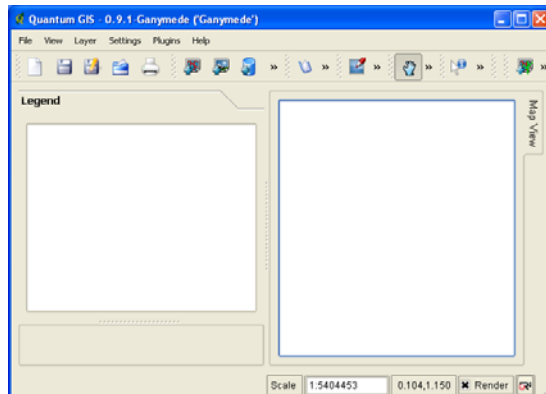
4.2 Importing Shape file into PostgreSQL using SPIT Plugin of QGIS



Double click on 'Quantum GIS' icon.



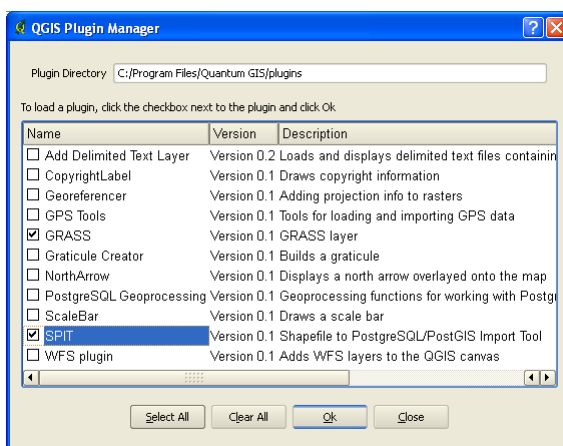
Logo of Quantum GIS appears.



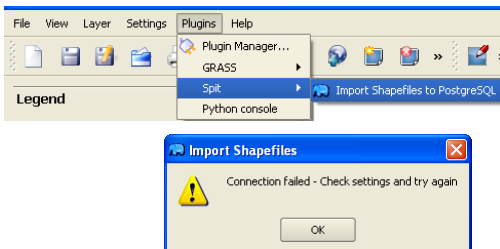
Then, Quantum GIS 0.9.1 starts.



'Plugin' and 'Plugin Manager'.



Put check box of 'SPIT' on in 'QGIS Plugin Manager' dialog.
Then, click on 'OK'.



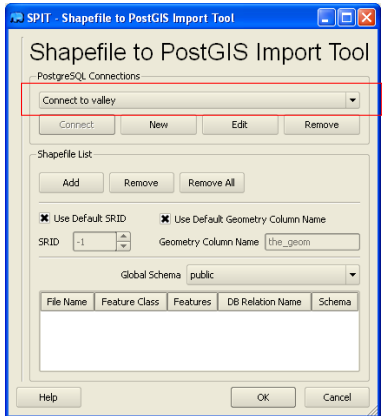
Import Shapefiles

Connection failed - Check settings and try again

OK

'Plugin', 'Plugin Manager', 'SPIT' and 'Import Shapefiles to PostGIS'.

Don't worry about this message. Click on 'OK'.



SPIT - Shapefile to PostGIS Import Tool

Shapefile to PostGIS Import Tool

PostgreSQL Connections

Connect to valley

Connect New Edit Remove

Shapefile List

Add Remove Remove All

☒ Use Default SRID ☒ Use Default Geometry Column Name

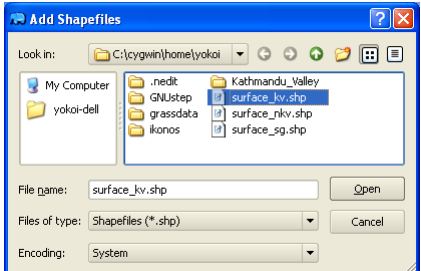
SRID: -1 Geometry Column Name: the_geom

Global Schema: public

File Name	Feature Class	Features	DB Relation Name	Schema
-----------	---------------	----------	------------------	--------

Help OK Cancel

Select existing connection name if you have and 'Edit' or create it by clicking on 'New'. Then, click on 'Add'.



Add Shapefiles

Look in: C:\cygwin\home\yokoi

My Computer yokoi-dell

Kathmandu_Valley

surface_kv.shp

surface_kv.shp

Files of type: Shapefiles (*.shp)

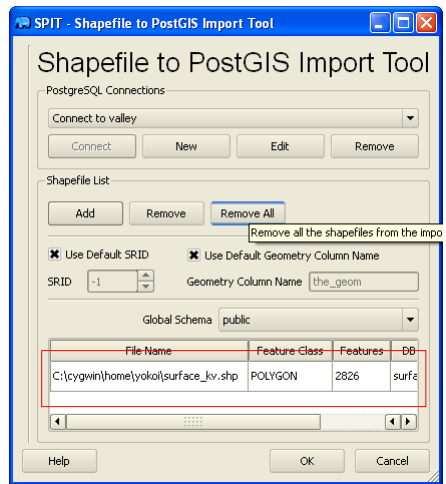
Encoding: System

File name: surface_kv.shp

Open Cancel

Select target Shape file and click on 'Open'.

The selected file name appears. Then, click 'OK'.



SPIT - Shapefile to PostGIS Import Tool

Shapefile to PostGIS Import Tool

PostgreSQL Connections

Connect to valley

Connect New Edit Remove

Shapefile List

Add Remove Remove All

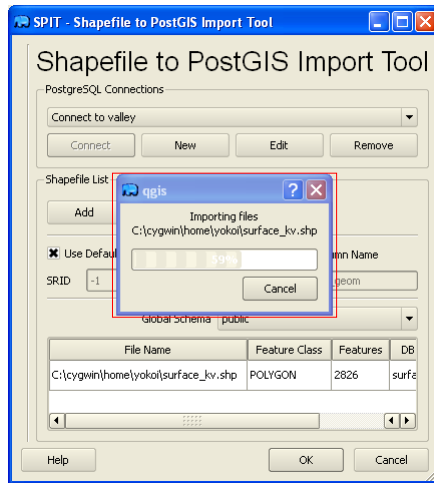
☒ Use Default SRID ☒ Use Default Geometry Column Name

SRID: -1 Geometry Column Name: the_geom

Global Schema: public

File Name	Feature Class	Features	DB
C:\cygwin\home\yokoi\surface_kv.shp	POLYGON	2826	surfa

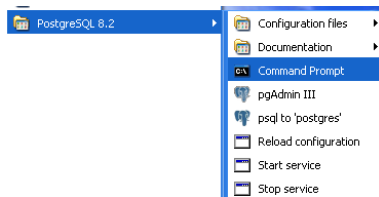
Help OK Cancel



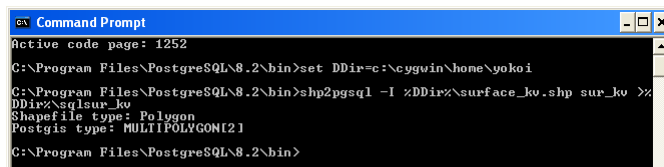
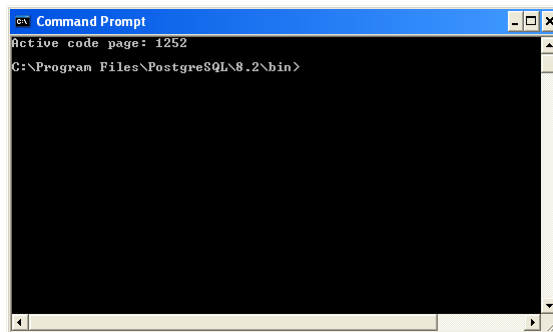
The selected Shape file is imported into PostgreSQL table.

Refer "4.4 Load table of PostgreSQL created by the imported Shape file on QGIS" for the way to load the PostGIS layer created by the imported Shape file.

There is an alternative way to import Shape file into PostGIS using shp2psql command. This command creates an interim file that is sql batch file, namely, this includes a series of PostgreSQL commands. You can add more detailed control to this batch file if you have sufficient knowledge and techniques for modifying sql batch file.



Start PostgreSQL command Prompt.
'Start', 'All Programs', 'PostgreSQL 8.2'
and 'Command Prompt'.



Set a temporal environmental parameter DDir.

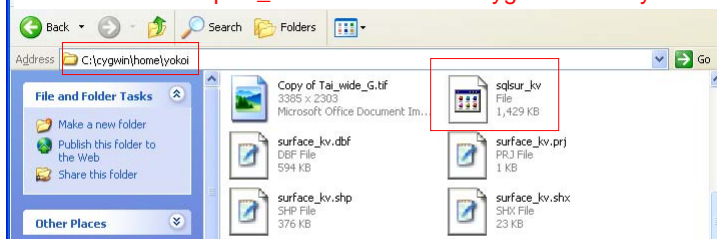
set DDir=c:\cygwin\home\yokoi

Create the interim file 'sqlsur_kv' using 'shp2pgsql' command of PostgreSQL.

shp2pgsql -I %DDir%\surface_kv.shp sur_kv >%DDir%\sqlsur_kv

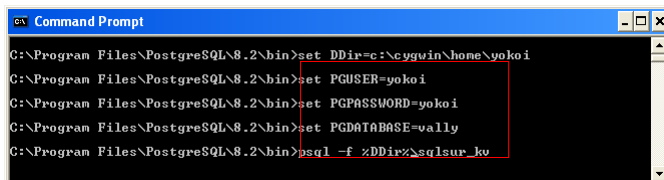
Then, 'Exit'.

The interim file 'sqlsur_kv' is created in 'c:\cygwin\home\yokoi' directory.



Use '-s 4326' option of 'shp2pgsql' command if it is necessary to specify the SRID of spatial reference system (4326 corresponds to wgs84).

Note: This interim file 'sqlsur_kv' is a batch file of PostgreSQL that includes a series of PostgreSQL commands to create a new table in PostgreSQL and store the data. 'sqlsur_kv' is an ASCII text file that can be browsed using, for example, WordPad.



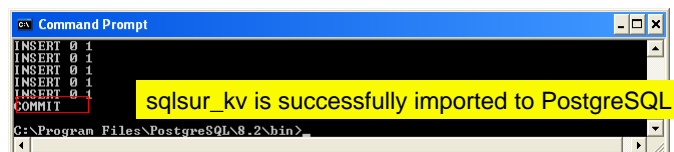
```
Command Prompt
C:\Program Files\PostgreSQL\8.2\bin>set DDir=c:\cygwin\home\yokoi
C:\Program Files\PostgreSQL\8.2\bin>set PGUSER=yokoi
C:\Program Files\PostgreSQL\8.2\bin>set PGPASSWORD=yokoi
C:\Program Files\PostgreSQL\8.2\bin>set PGDATABASE=valley
C:\Program Files\PostgreSQL\8.2\bin>psql -f %DDir%\sqlsur_kv
```

Set environmental parameters:

Username	set PGUSER=yokoi
Password	set PGPASSWORD=yokoi
Database	set PGDATABASE=valley

Execute the batch file 'sqlsur_kv' in 'c:\cygwin\home\yokoi'

psql -f %DDir%\sqlsur_kv



```
Command Prompt
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
INSERT 0 1
COMMIT
C:\Program Files\PostgreSQL\8.2\bin>
```

sqlsur_kv is successfully imported to PostgreSQL

```

Command Prompt - psql -U yokoi
COMMIT
C:\Program Files\PostgreSQL\8.2\bin>psql -U yokoi
Welcome to psql 8.2.6, the PostgreSQL interactive terminal.
Type: \copyright for distribution terms
      \h for help with SQL commands
      \? for help with psql commands
      \g or terminate with semicolon to execute query
      \q to quit
valley=> \d
          List of relations
Schema |      Name      | Type  | Owner
-----+-----+-----+-----
public | buildings      | table | yokoi
public | geometry_columns | table | yokoi
public | open_spaces    | table | yokoi
public | roads          | table | yokoi
public | spatial_ref_sys | table | yokoi
public | sur_kv         | table | yokoi
public | sur_kv_gid_seq | sequence | yokoi
(? rows)
valley=> exit

```

Confirm creation of new table 'sqlsur_kv' in Database 'valley'.

Connect to Database valley

`psql -U yokoi`

Browse table list

`\d`

Check the table 'sqlsur_kv'.

Then, '`\q`' and '`exit`'.

Export a table of PostgreSQL to a shape file using the command "`pgsql2shp`".

Open "Command Prompt" of PostgreSQL.

Then use the command "`pgsql2shp`".

```

pgsql2shp mydatabase mytable -f myshpname -u myusername
-P mypassword -g mygeometryfield

```

where `mydatabase`: Name of the database that contains the table to be exported,

`mytable`: Name of the table to be exported,

`myshpname`: Shape file name for output without .shp extension,

`myusername`: Username of the database,

`mypassword`: Password of the database,

`mygeometryfield`: Geometry column to be exported (can be skipped).

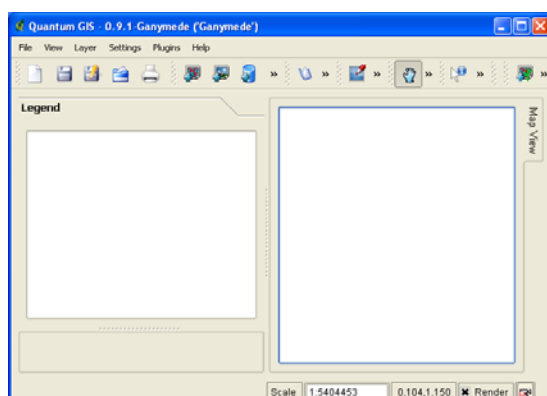
4.3 Import Shape file into QGIS



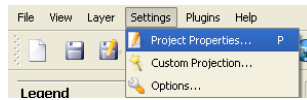
Double click on 'Quantum GIS' icon.



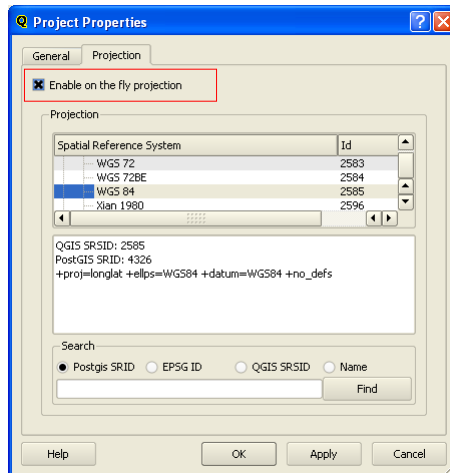
Logo of Quantum GIS appears.



Then, Quantum GIS 0.9.1 starts.



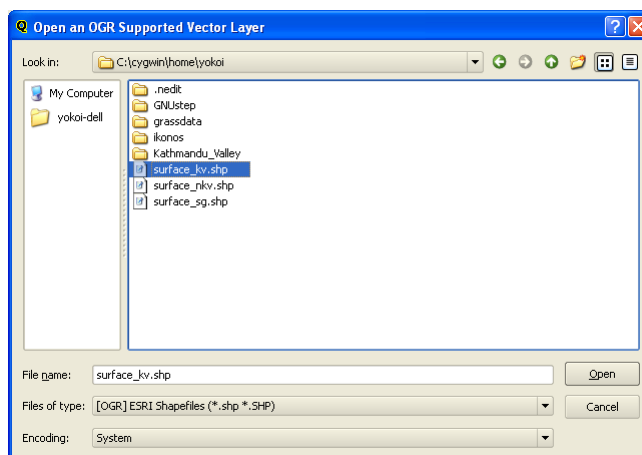
'Setting' and 'Project Properties'.



In 'Project Properties' dialog, select 'Projection' tag and put the check box of 'Enable on the fly projection' on. Then, click on 'OK'.

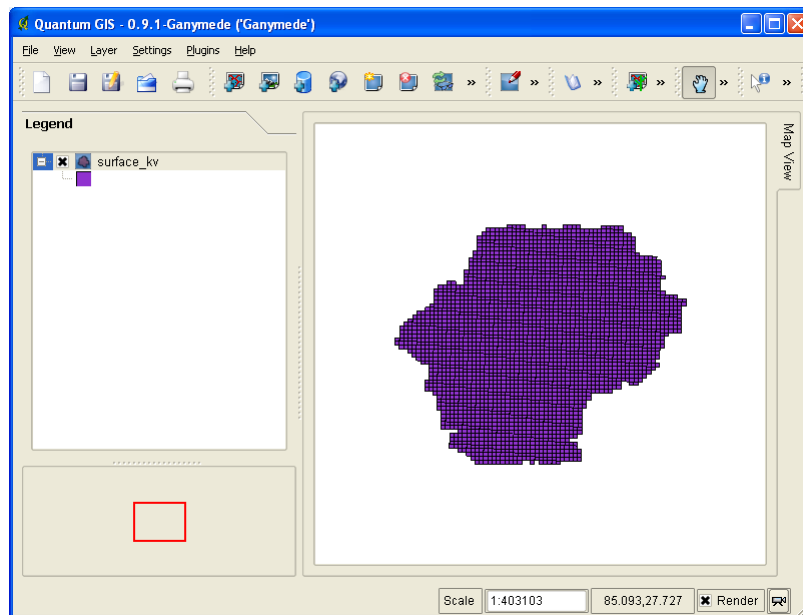


Click on 'Add a Vector Layer' button.

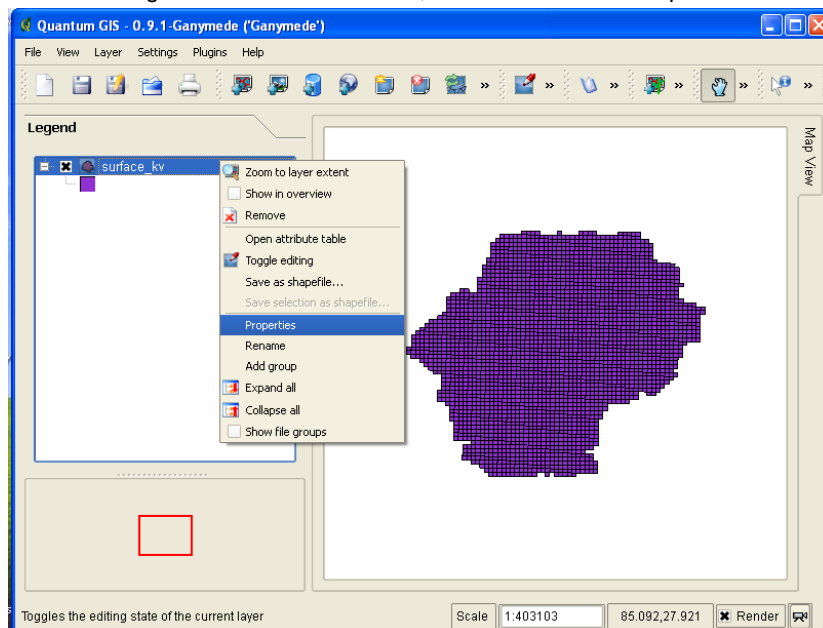


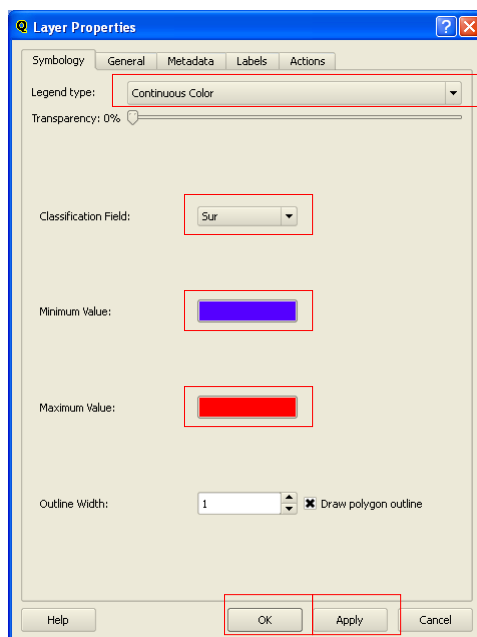
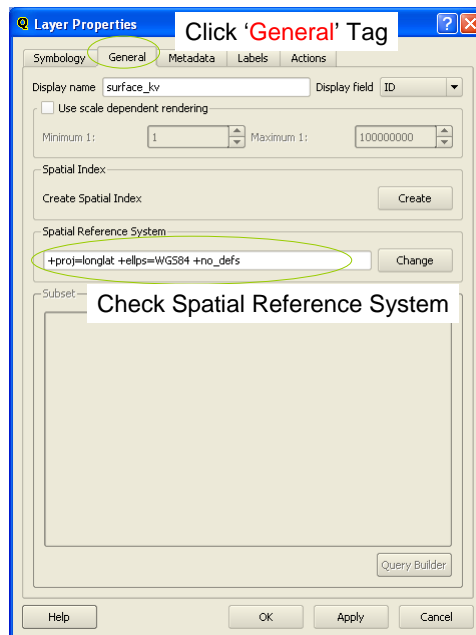
Select 'surface_kv' in 'c:¥cygwin¥home¥yokoi' and click on 'Open'.

'surface_kv' is loaded on QGIS.



Click right button on 'surface_kv', then left button on Properties.





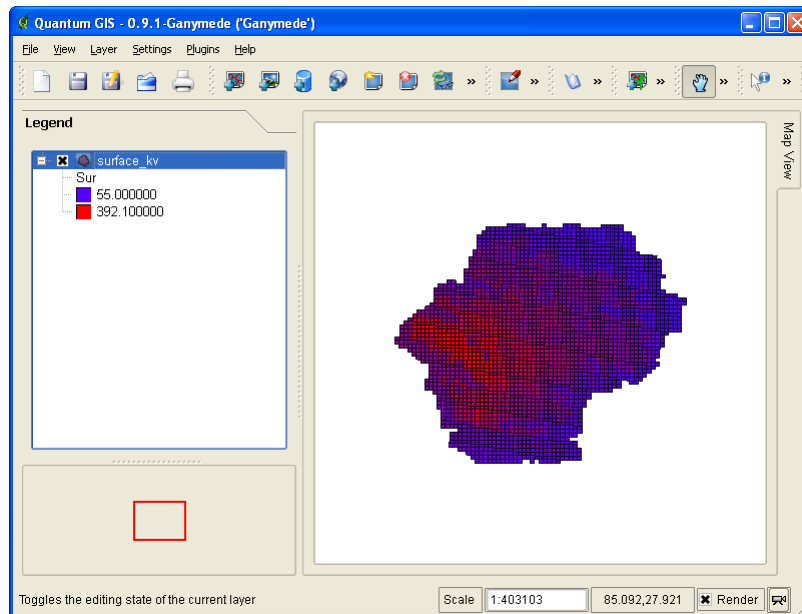
Select 'Continuous Color'.

Select Classification field 'Sur'.

Select color for the minimum value.

Select color for the maximum value.

Then, click on 'Apply' and 'OK'.



Close QGIS using 'File' and 'Exit'.

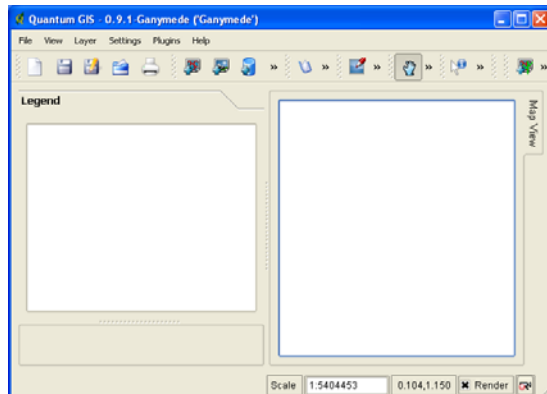
4.4 Load table of PostgreSQL created by the imported Shape file on QGIS



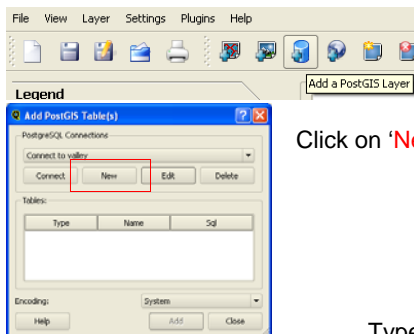
Double click on 'Quantum GIS' icon.



Logo of Quantum GIS appears.

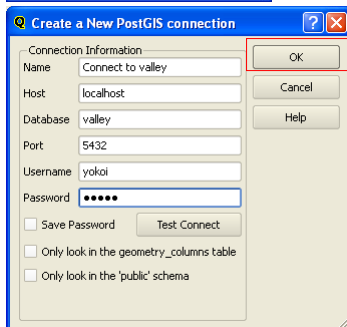


Then, Quantum GIS 0.9.1 starts.



Click on 'Add a PostGIS Layer' button.

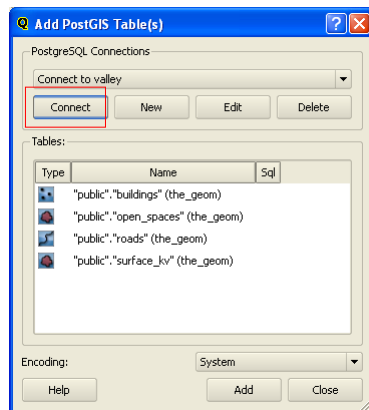
Click on 'New' in 'Add PostGIS' dialog.



Type in the necessary information:

Name: **Connection to valley** (Arbitrary)
Host: **localhost** (Fixed)
Database: **valley** (For this example)
Port: **5432** (Fixed)
Username: **yokoi** (For this example)
Password: **yokoi** (hidden; For this example)

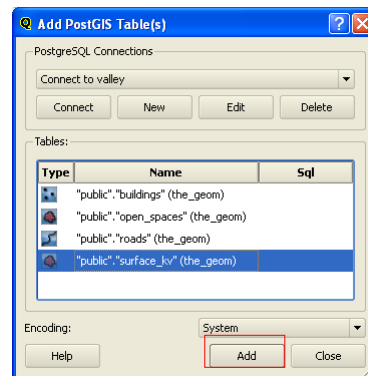
Then, click on 'OK'.



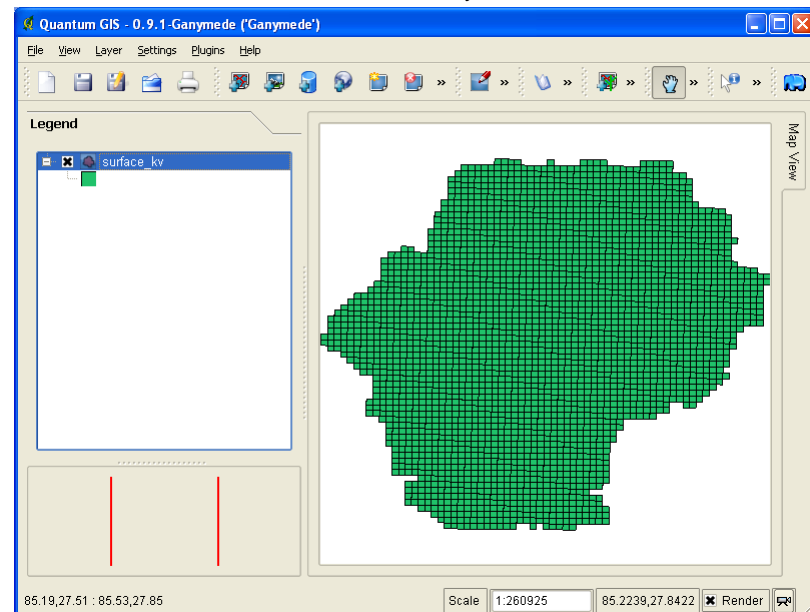
Click on 'Connect'.

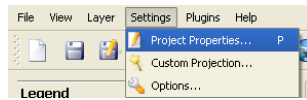
All the tables in 'valley' are displayed.

Select "public", "surface_kv" (the geom) and click on Add.

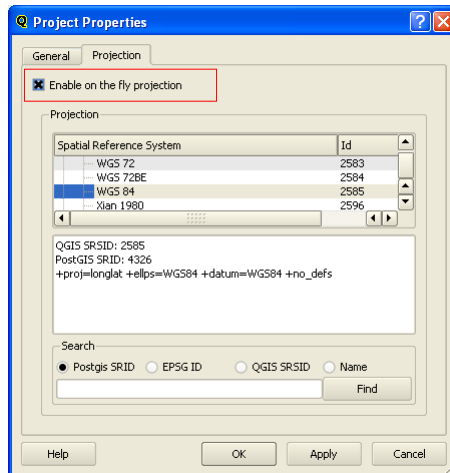


'surface_kv' vector layer is loaded.



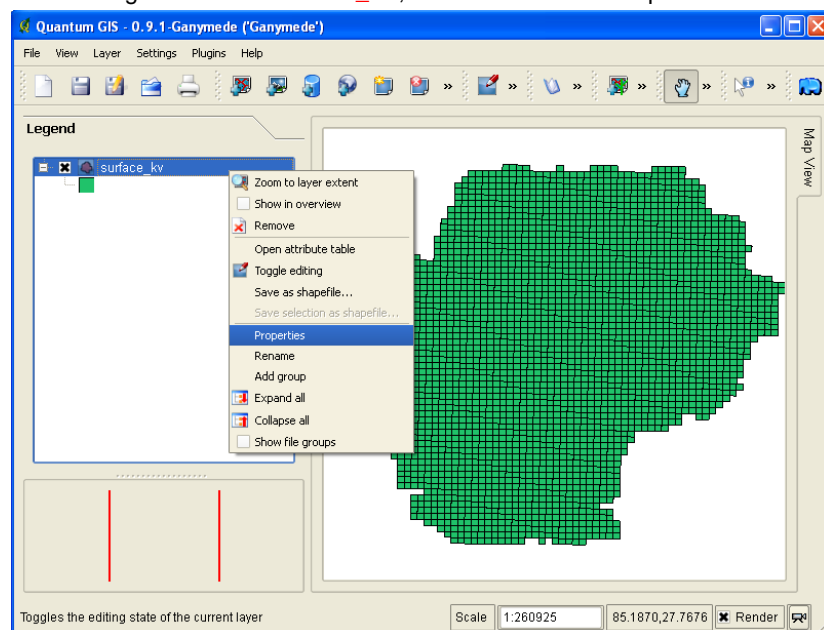


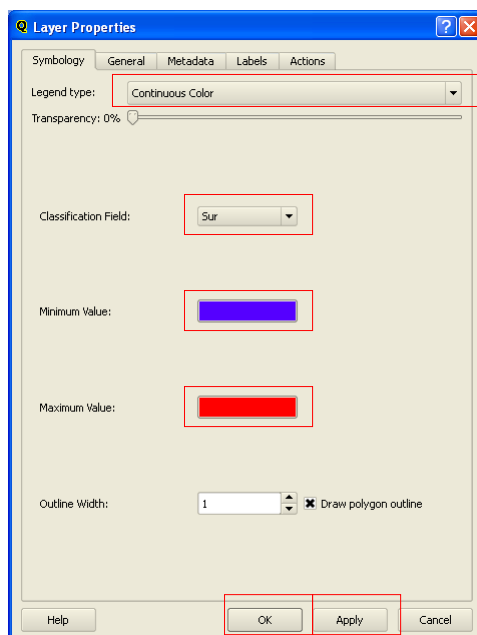
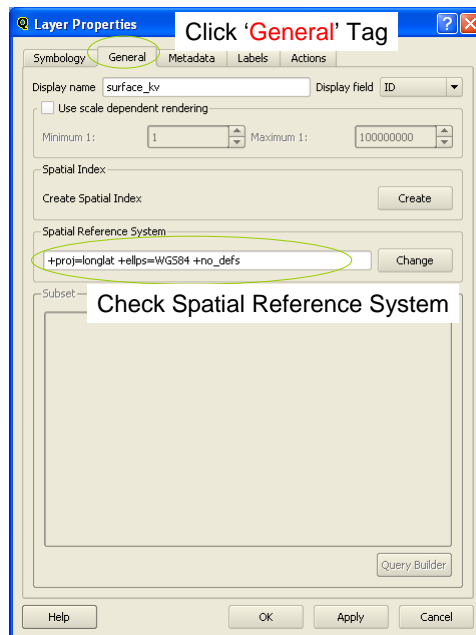
'Setting' and 'Project Properties'.



In 'Project Properties' dialog, select 'Projection' tag and put the check box of 'Enable on the fly projection' on. Then, click on 'OK'.

Click right button on 'surface_kv', then left button on Properties.





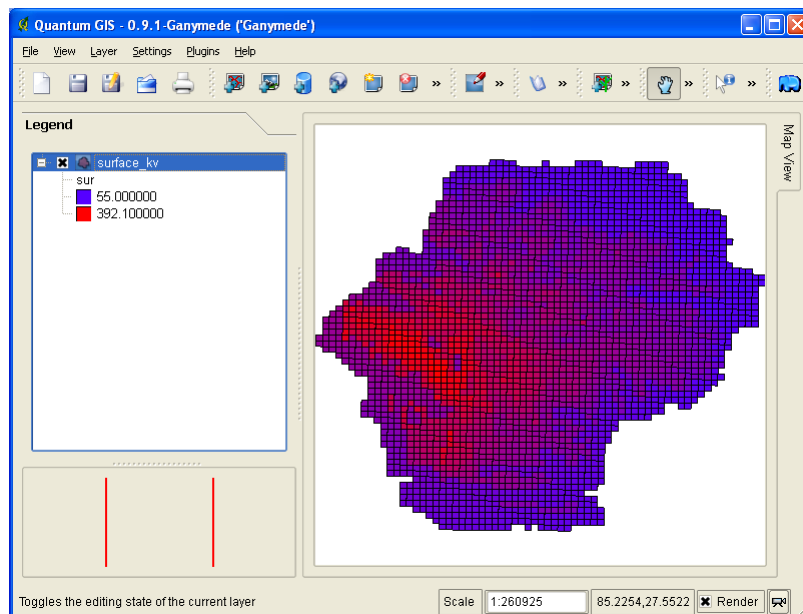
Select 'Continuous Color'.

Select Classification field 'Sur'.

Select color for the minimum value.

Select color for the maximum value.

Then, click on 'Apply' and 'OK'.



Close QGIS using 'File' and 'Exit'.

4.5 Convert Map Info Tab, ArcInfo Coverage or other vector formats to Shape file

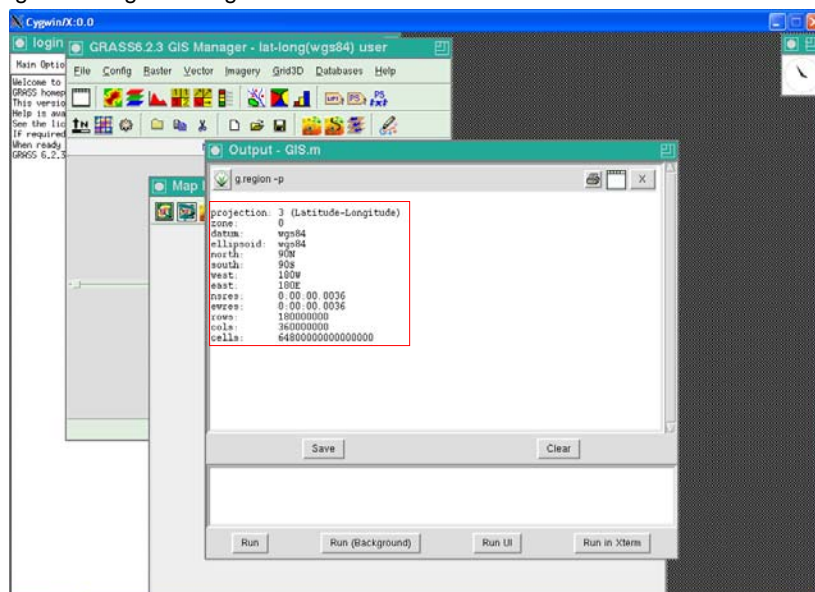
GRASS can import and export vector data of various formats. Map Info Tab, ArcInfo Coverage and Shape among them. (Refer [A2_Supproted_Data_formats](#)).

The way of conversion is:

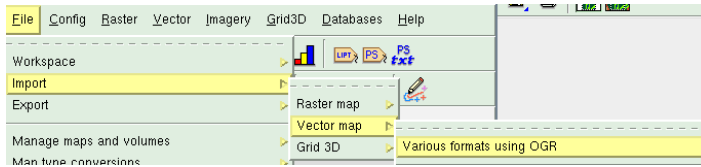
- + Create Location-Mapset of GRASS adequately for the target vector data,
- + Start GRASS with this Location-Mapset,
- + Import the target vector data into a vector layer of GRASS ,
- + Export this layer to Shape file.

Here, two examples are shown. One Map Info Tab, another ArcInfo Coverage. Both are of latitude-longitude coordinates of wgs84.

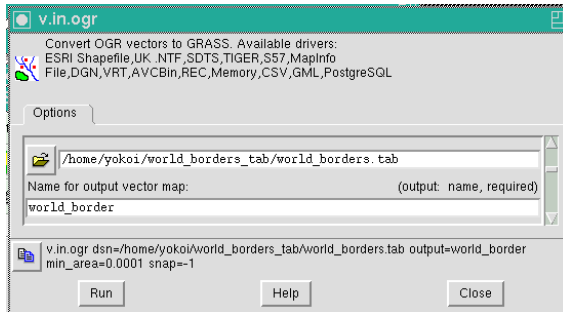
First, GRASS is started with Location=lat-long(wgs84), Mapset=user and the region setting is arranged for that whole earth is covered.



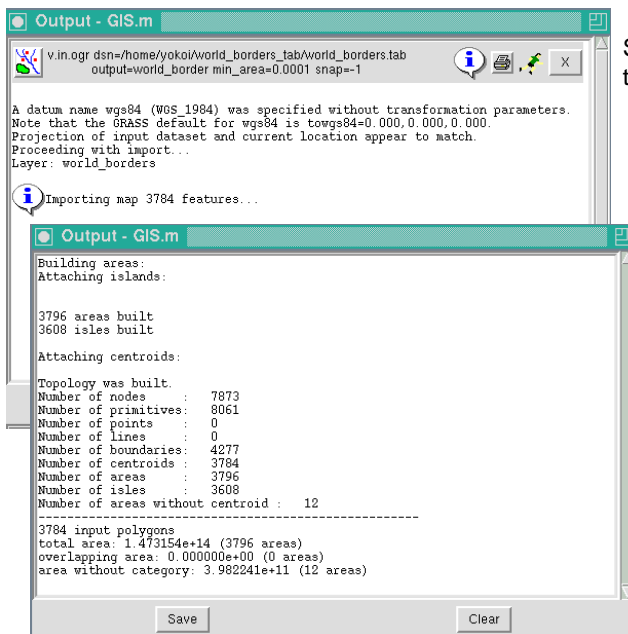
Convert Map Info Tab to Shape:



'File', 'Import', 'Vector map' and 'Various formats using OGR'.

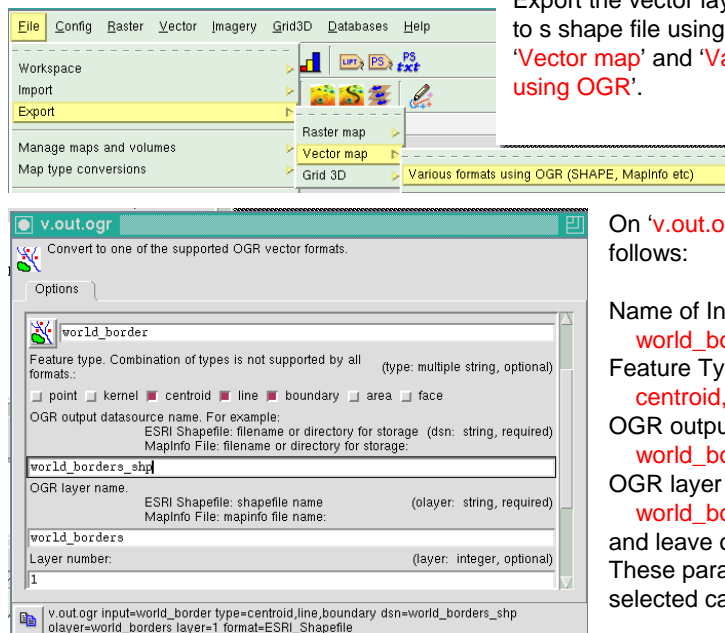


Type in the Map Info Tab file (.tab) name with its path and output vector map name. Then, click on 'Run'.



Start importing. This takes much time.

Completed.



Export the vector layer 'world_border' to a shape file using 'File', 'Export', 'Vector map' and 'Various formats using OGR'.

On 'v.out.ogr' dialog, set as follows:

Name of Input Vector map

world_border

Feature Type

centroid, line, boundary

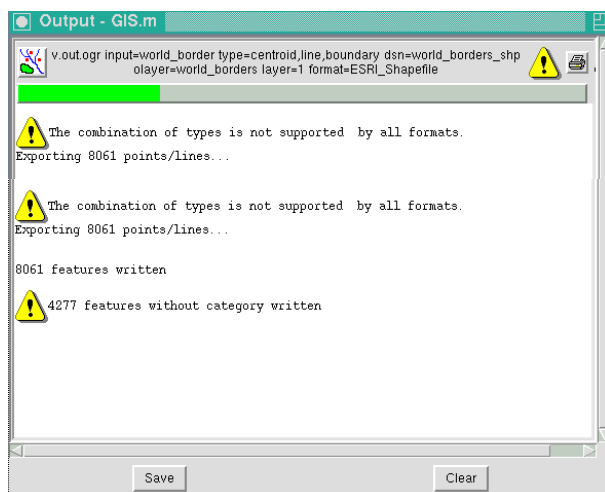
OGR output datasource

world_borders.shp

OGR layer name

world_borders

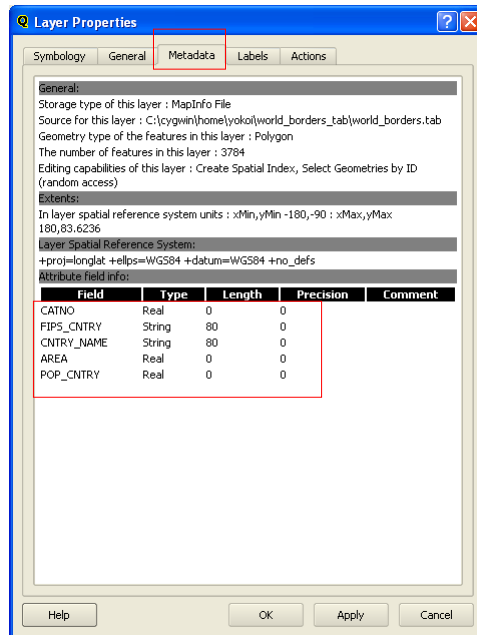
and leave others as default. These parameters should be selected case by case.



Start exporting.

Completed.

Note: GRASS automatically adds an additional attribute 'CAT' at importing a vector data for its inner usage. If imported vector data has the same attribute name, a batching error takes place and it is necessary to change the attribute name at importing to GRASS. 'v.in.ogr' dialog provides this functionality. QGIS provides the way to list the attribute used in vector data for some formats including Map Info Tab.



Check the attributes used in Map Info Tab data.

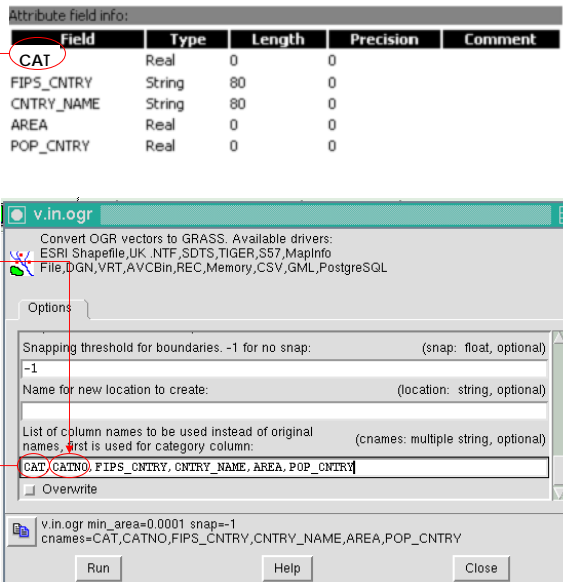
Start QGIS and load the target Map Info Tab data.

Open 'Layer Properties' dialog by clicking the target layer in Legend.

Then, select 'Metadata' tag.

The attributes are listed as shown left.

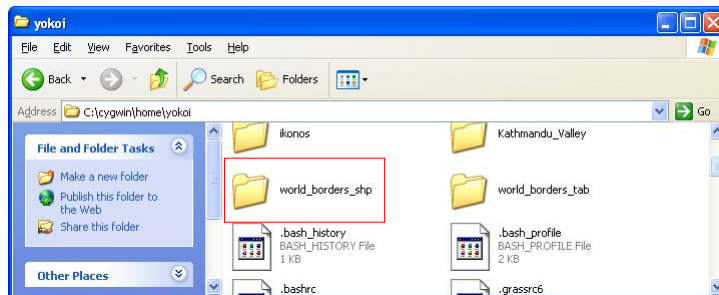
In this example, attribute name 'CAT' is not used.



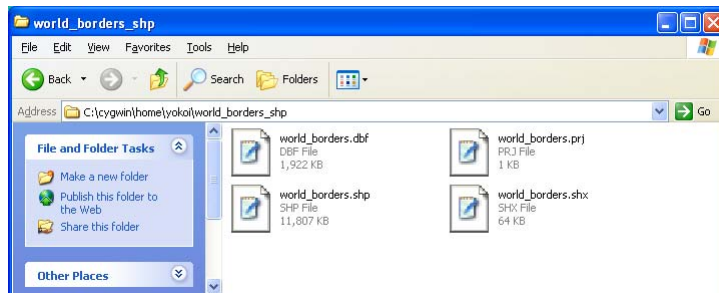
If the attribute name 'CAT' is used in the vector data, it is necessary to use the functionality of 'List of column names...' of 'v.in.ogr' dialog.

At the beginning 'CAT' used by GRASS should be written and then the attribute names of the vector data are listed.

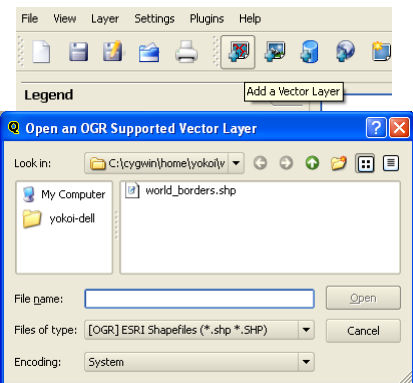
Used by GRASS



Directory '**world_borders_shp**' is created.

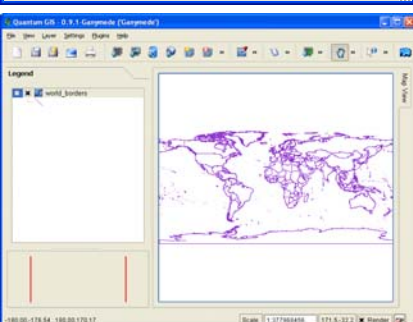


Shape file '**world_borders.shp**' is created in it with its associate files.



Start QGIS to check the created shape file. Click on '**Add a Vector Layer**' button.

Select the created shape file '**world_borders.shp**' in the directory '**c:\cygwin\home\yokoi\world_borders_shp**'.



'**world_borders.shp**' is loaded and displayed.

'**File**' and '**Exit**'.

Convert ArcInfo Covarege to Shape:

ArcInfo Coverage is converted to Shape file using 'ogr2ogr'.



Start FWTOOLS by clicking on this icon.

```
FWTools Shell
C:\Program Files\FWTools1.3.6>ogrinfo c:\cygwin\home\yokoi\Administration_bounda
ry
Had to open data source read-only.
INFO: Open of 'c:\cygwin\home\yokoi\Administration_boundary'
      using driver 'BUCBin' successful.
1: ARC (Line String)
2: CNT (Point)
3: LAB (Point)
4: PAL (Polygon)
5: TXT (Point)
C:\Program Files\FWTools1.3.6>
```

List the attributes using 'orginfo' command.

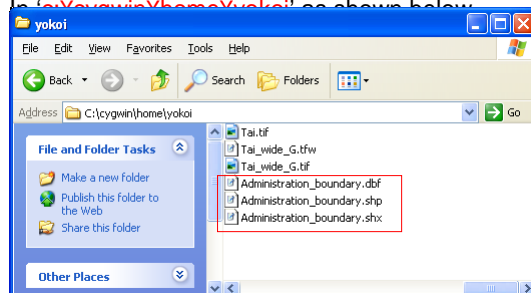
`orginfo c:\cygwin\home\yokoi\Administration_boundary`
where the data are stored in the directory 'Administration_boundary' under
'c:\cygwin\home\yokoi'. Five attributes (columns) are used, i. e., ARC, CNT,
LAB, PAL, TXT.

```
FWTools Shell
C:\Program Files\FWTools1.3.6>ogr2ogr -f "ESRI Shapefile" c:\cygwin\home\yokoi\A
dministration_boundary.shp c:\cygwin\home\yokoi\Administration_boundary PAL
ERROR 6: Can't create fields of type IntegerList on shapefile layers.
C:\Program Files\FWTools1.3.6>
```

Conversion:

`ogr2ogr -f "ESRI Shapefile"`
`c:\cygwin\home\yokoi\Administration_boundary.shp`
`c:\cygwin\home\yokoi\Administration_boundary PAL`

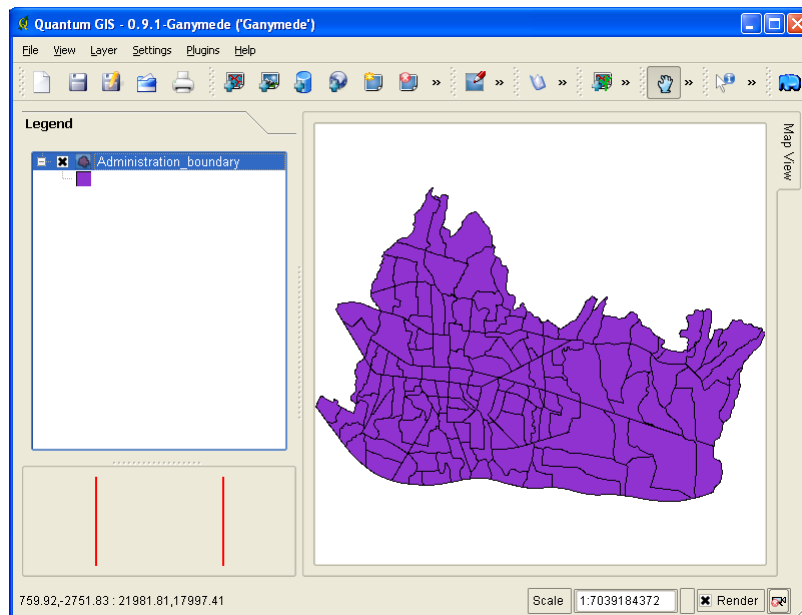
Input data is stored in 'c:\cygwin\home\yokoi\Administration_boundary'. 'PAL'
file among them is used for conversion. Output is 'Administration_boundary.shp'.
In 'c:\cygwin\home\yokoi' as shown below.



```
FWTools Shell
C:\Program Files\FWTools1.3.6>exit
```

Exit from FWTools.

Confirm by loading the output Shape file in QGIS.

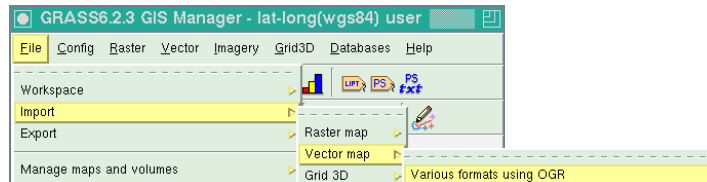


4.6 Import PostGIS layer to GRASS and export GRASS vector map to PostGIS

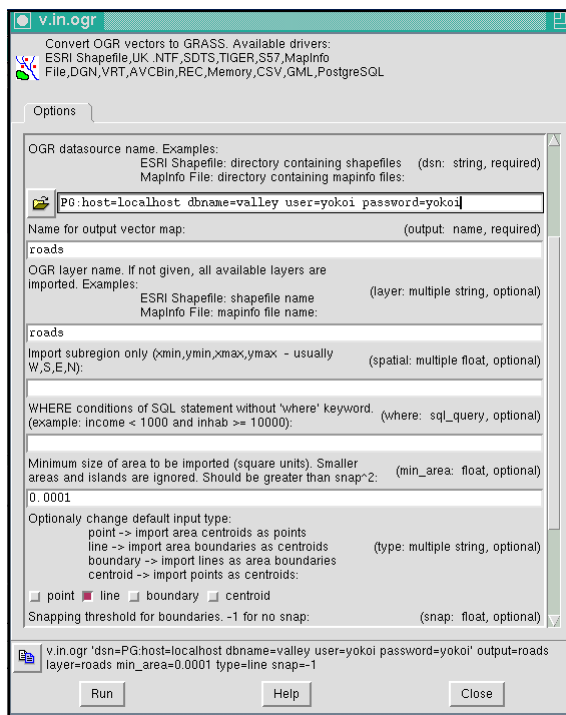
There are three tables in the database 'valley' in PostgreSQL, namely, 'buildings', 'roads' and 'open_spaces' that are created in '2_Creating_Vector_Layers' and edited in '3_Input_Data_To_Vector_Layers'. These are used for examples.

These are digitized in Basemap that are exported from Location=lat-long(wgs84) and Mapset=Tsukuba.

Import them from PostgreSQL to the same Location-Mapset. Start GRASS.



'File', 'Import', 'Vector map' and 'Various formats using GDAL'.



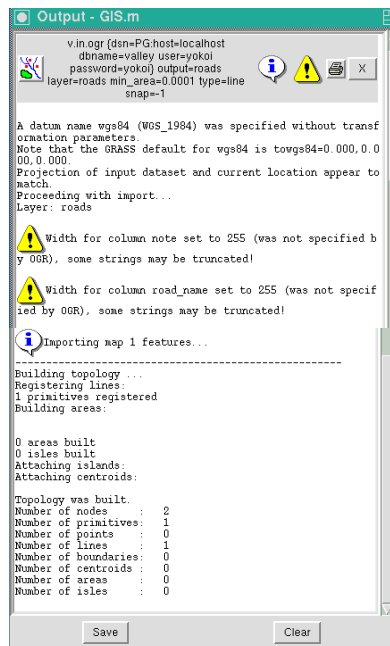
'v.in.ogr' dialog opens.

Type in the information of database and table at 'OGR datasource name'.
PG:host=localhost
dbname=valley user=yokoi
password=yokoi

Name for output vector map
Roads

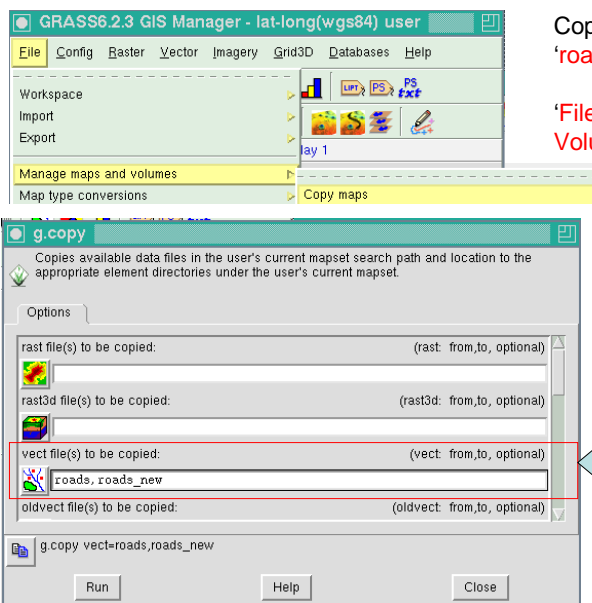
Leave others as default.

Click on 'Run'.



Importing data from PostgreSQL.

The imported vector layer can be checked by drawing it in GRASS or from QGIS.



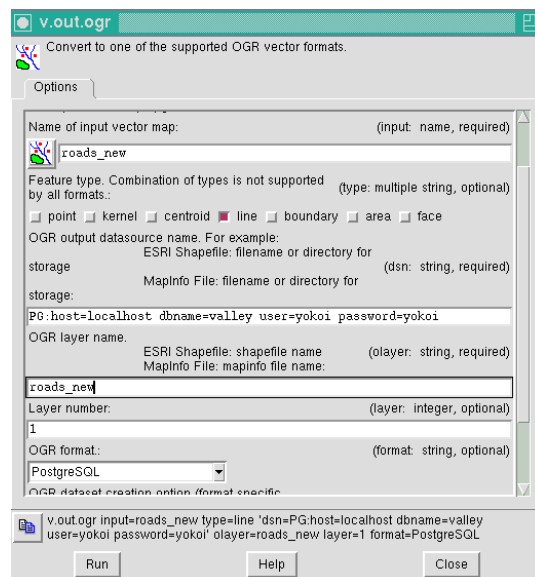
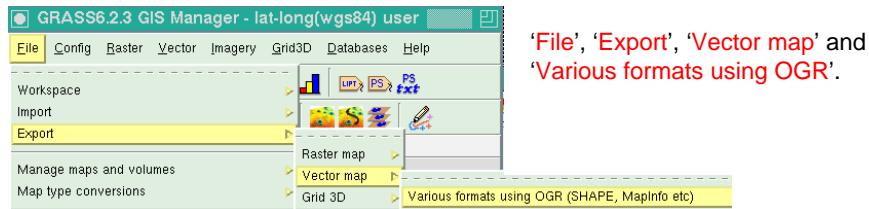
Copy the imported vector layer 'roads' to 'roads_new'.

'File', 'Manage maps and Volumes' and 'Copy maps'.

'g.copy' dialog opens.

Fill here (from,to)

Export GRASS vector layer to PostgreSQL table.



'v.out.ogr' dialog opens.

Type in the information of database and table at 'Name of input vector map'.

roads_new

Feature Type

line

OGR output datasource

PG:host=localhost

dbname=valley user=yokoi

password=yokoi

OGR layer name

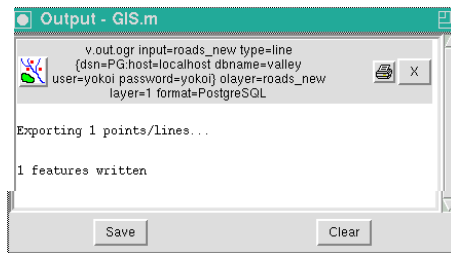
Roads_new

OGR format

PostgreSQL (Selection)

Leave others as default.

Click on 'Run'.



Start exporting.

Completed.

The exported PostgreSQL table (PostGIS layer) can be checked from QGIS.

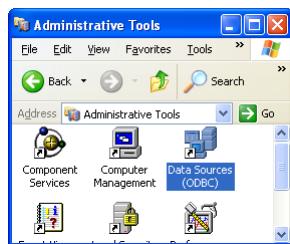
4.7 Retrieve table of PostgreSQL to Excel

Retrieve table of PostgreSQL to Excel through ODBC.

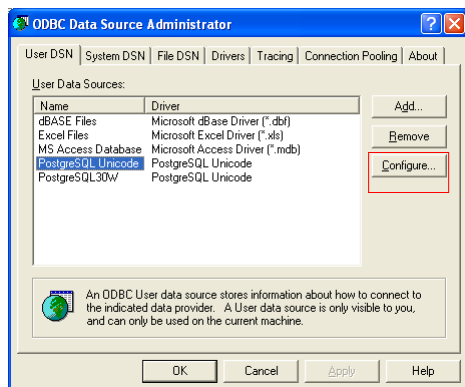


Change ODBC Setting first:

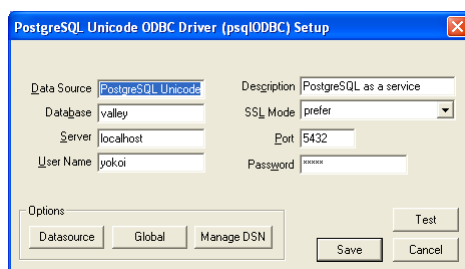
Open “Control Panel” and click on “Administrative Tools”.



Click on “Data Sources (ODBC)”



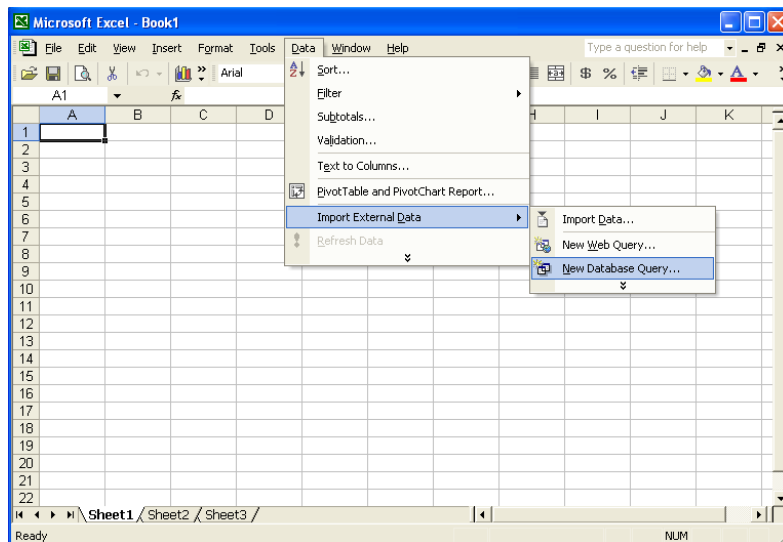
“ODBC Data Source Administrator” opens. Select “PostgreSQL Unicode” and click on “Configure”.



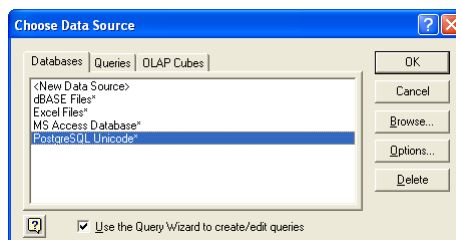
Change “Database”, “User Name” and “Password” for the target Database. For this example:

Database= valley
User Name= yokoi
Password= yokoi

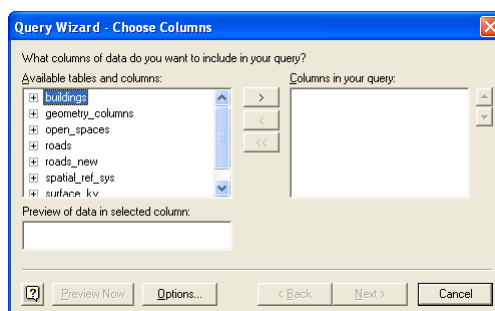
Click on “Save”. Then click on “OK”.



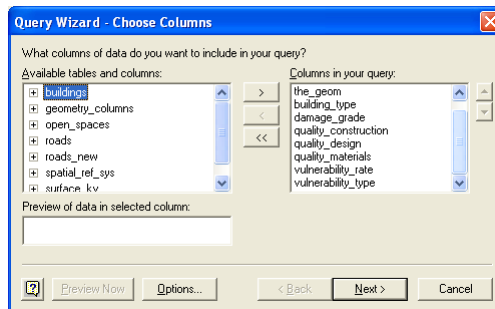
Open Excel, Select "Data"->"Import External Data"->"New Database Query"



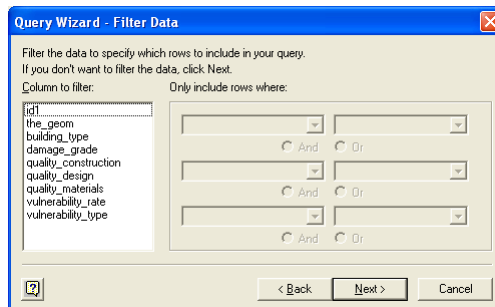
"Choose Data Source" dialog appears. Select "PostgreSQL Unicode" and click on "OK".



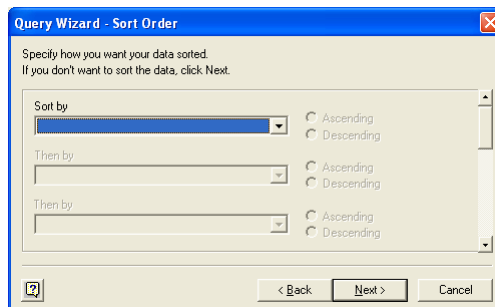
"Query Wizard - Choose Columns" opens. Select the target column. For this example "buildings". Click on ">"



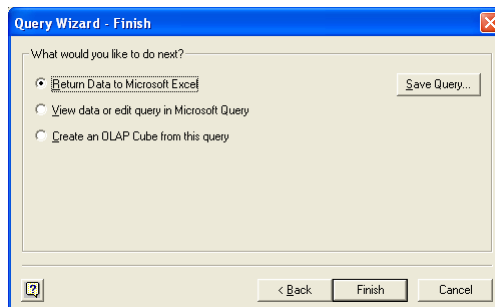
The columns of “**buildings**” are shown in the right. Click on “**Next**” .



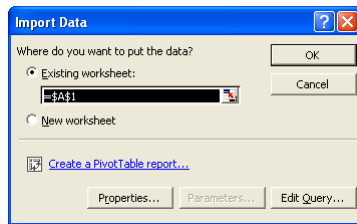
“Query Wizard –Filter Data” opens. It is possible to specify the filter to select rows if necessary. Click “**Next**” if any filter is not necessary.



“Query Wizard –Sort Order” opens. It is possible to specify the order how to the data. Click “**Next**” if any sorting is not necessary.



“Query Wizard –Finish” opens. Select “**Return Data to Microsoft Excel**”. Click “**Finish**”.



"Import Data" dialog opens.

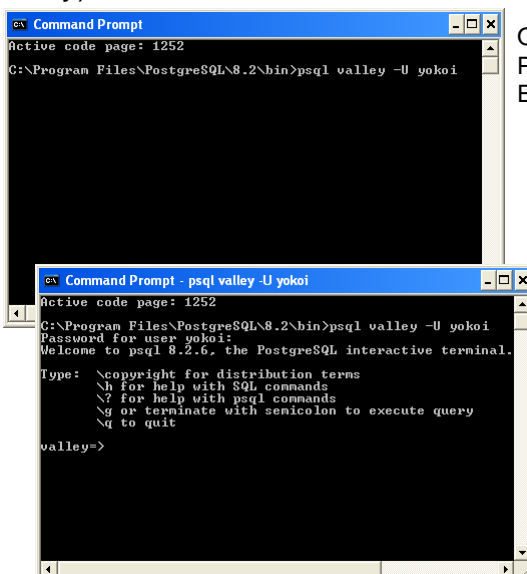
It is possible to return the data in a New worksheet or Existing work sheet. For the latter case it is possible to specify the top-left cell where the returned data are stored. Click "OK".

the_geom	building_type	damage_grade	quality_constru
1 0101000020E8100000617CE68C0F836140B0E775D6B5184240	2		
2 0101000020E81000009B7132CCFA836140B9F1400F6184240			
3 0101000020E81000004E330780038361405BE570C8CF184240			
4 0101000020E8100000E091A80F9826140EE00CDE3EF184240			
5 0101000020E810000081C51722FA826140ADE0618CB5184240			
6 0101000020E8100000882B52B9E2614039AF16FDC10184240			
7 0101000020E81000008011FB0F0F826140CE8DC145E9184240			
8 0101000020E8100000F84403CFFC8261406B0F5293E5184240			
9 0101000020E8100000F66B24801836140C99074FAD7184240			
10 0101000020E8100000F66B24801836140C99074FAD7184240			
11 0101000020E8100000F236B819F08261407AD9830ADC184240			
12 0101000020E81000000C5E8CAFA826140B5B1E485B6184240			
13 0101000020E8100000501EE048F826140EA1AD4ADDA184240			
14 0101000020E8100000390ACEF58261409E0485D005184240			
15 0101000020E81000004E478FC2F0826140F9E4052501184240			
16 0101000020E8100000C3E9AE84FE8261402CCA362C1184240			
17 0101000020E8100000E1C2344F82614007598C57AD184240			
18 0101000020E81000009E3B0300F08261404A6E9C50AE184240			
19 0101000020E81000003619339F082614074CCB58B4184240			

The returned data (table "buildings") are stored in the selected worksheet.

Never modify the column "the_geom". This column has the information of geometry of the vector layer.

Export table of PostgreSQL to a CSV format file (An alternative way).



Open "Command Prompt" of PostgreSQL.

Enter the target Database:

`psql valley -U yokoi`

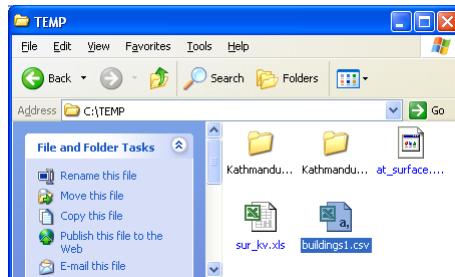
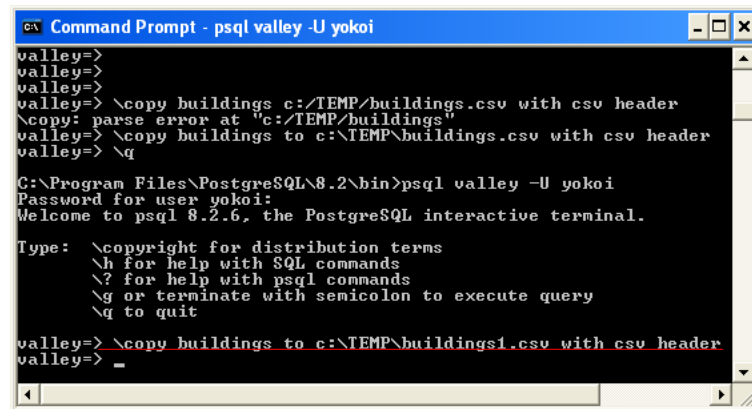
Then, enter the password.

Use “\copy” command to export the table to a csv format file:

$\backslash\text{copy}$ table_name to c:\Path\table_name.csv with csv header

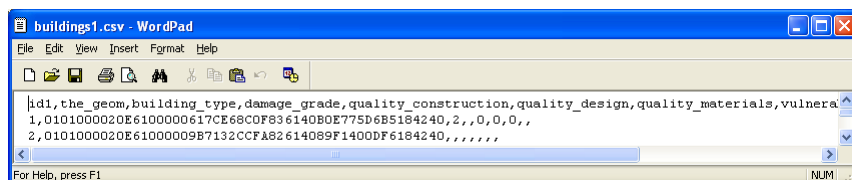
Output CSV file name with path

Table name in database



“buildings.csv” is created in “c:\TEMP”.

Note: In CSV format file each rows of the PostgreSQL table stored in lines and data are delimited by “,”. CSV format file can be opened by Excel.



A	B	C	D	E	F
id1	the_geom	building_ty	damage_g	quality	corquality_deg
1	0101000020E6100000617CE680D836140B0E775D6B5184240		2		0
2	0101000020E61000009B7132CCFA626140B9F1400DF6184240				
3	0101000020E61000004E33D700030361405BE570C0CF184240				
4	0101000020E6100000E091A20F9826140EE00CDE3EF184240				
5	0101000020E6100000B1C51722FA826140AD60618CB6184240				
6	0101000020E61000008803B32BF6261403AF16FDCF0184240				
7	0101000020E61000008D11FBEDF626140CE5DC145E9184240				
8	0101000020E6100000F84403CFFC8261406B0F5293E5184240				
9	0101000020E6100000F6C824801836140C99074F4D7184240				
10	0101000020E6100000F236B819FD6261407AD983DADC184240				
11	0101000020E6100000D0D5EBCAF926140BEB1E489D6184240				
12	0101000020E6100000501EE040F8026140EA1AD44DDA184240				
13	0101000020E6100000C990ACE6F50261409E0485D0D5184240				
14	0101000020E61000004E478FC2FC626140F9E40625D1184240				
15	0101000020E6100000D3E9AEB4F6261402CDA3862C1184240				
16	0101000020E61000000E7D23A4FB626140079D8C57AD184240				
17	0101000020E61000009E3BD300FD6261404A6E9C50AE184240				
18	0101000020E61000003619339FC8261407F4CCB68B4184240				

Never modify the column "the_geom". This column has the information of geometry of the vector layer.

4.8 Import Excel worksheet to PostgreSQL

A way to store Excel worksheet to PostgreSQL (Use CSV file as interim product).

Store the target Excel worksheet into a csv format file using “File” and “Save as”.

Open “Command Prompt” of PostgreSQL.

Enter the target Database:

psql valley -U yokoi

It is necessary to set a table to that the data are imported from a shape file.

Refer [8_Import_csv_file_&_add_geometry.ppt](#) for detail.

Then import the csv format file:

¥copy table_name from c:¥temp¥table_name.csv with csv header

input CSV file name with path

Table name in database