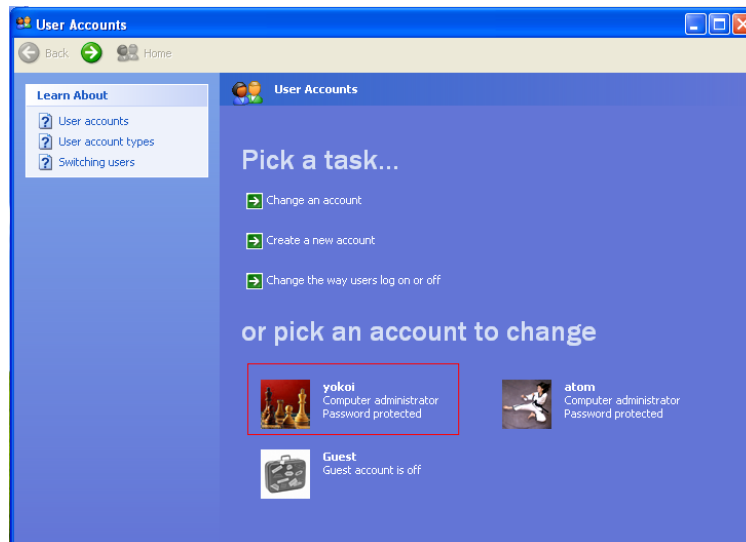


Install Free GIS Software on Your PC

1. Cygwin & GRASS 6.2.3
2. FWTools1.3.4
3. AVCE00-2.0.0-WIN32
4. PostgreSQL-8.2.6 including PostGIS
5. Quantum GIS 0.9.1
6. ODBC setting
7. Expat 2.0.1 (Option)
8. Setting New User and Database for PostgreSQL-8.2.6

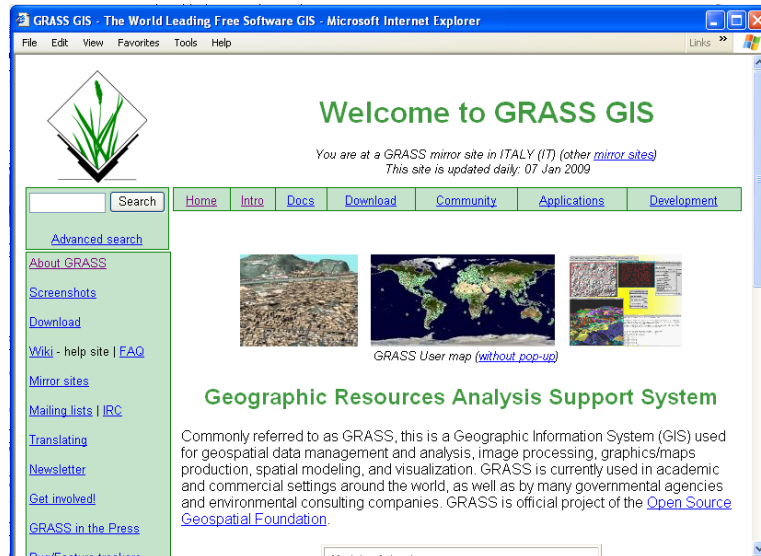
1



First of all, start Windows with the user account of “**Computer administrator type**”.
(Ask to your System Engineer to change the type of your account.)
Hereafter “**yokoi**” is used as an example of **User_Account_Name**.

2

Install Cygwin & GRASS 6.2.3



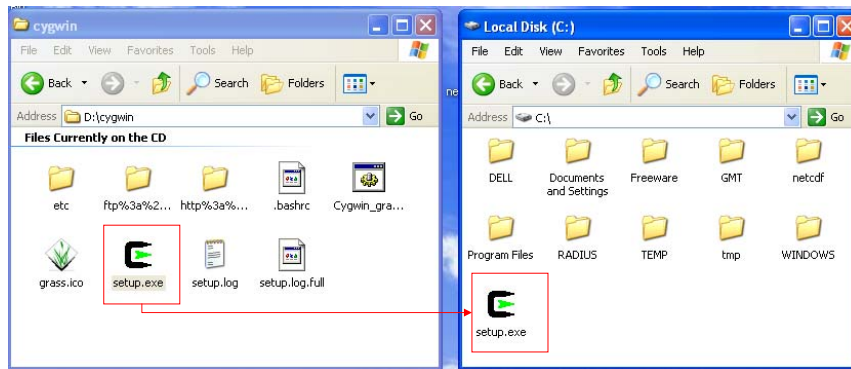
3

1. Cygwin & GRASS 6.2.3

Insert Install_CD_2009 into the CD Drive of your PC. It is assumed this is **D:¥** drive.

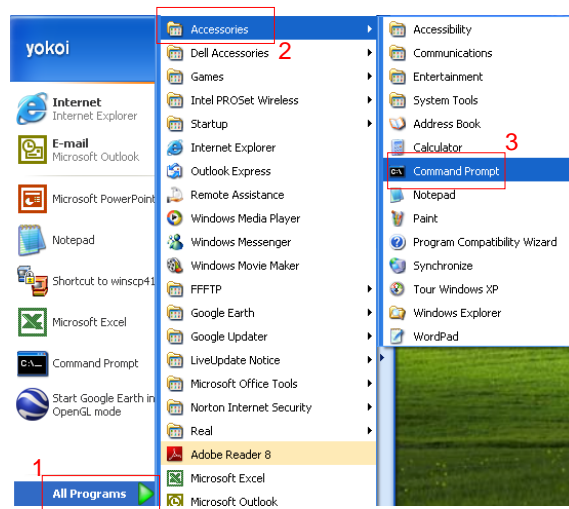
Cygwin plus GRASS 6.2.3 will be installed under **C:¥cygwin**.

4



Copy **D:\cygwin\setup.exe** into **C:**.

5



Click on “All Programs”, “Accessories” and “Command Prompt”.

6

Then, "Command Prompt" starts.

The screenshot shows a Windows XP Command Prompt window. The title bar reads "Command Prompt". The text inside shows the command prompt history and the current directory listing. A red box highlights the command `chdir c:\` with a red number "1" next to it. A callout box points to this command with the text "Change directory to C:¥". Below the directory listing, another red box highlights the command `setup.exe -X` with a red number "2" next to it. A callout box points to this command with the text "Run setup.exe with the option -X.".

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

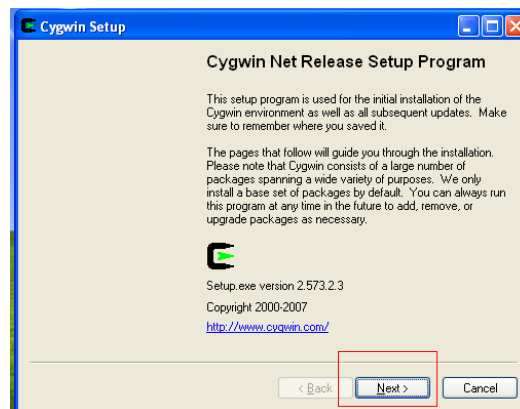
C:\Documents and Settings\yokoi-dell>chdir c:\

C:\>dir
Volume in drive C has no label.
Volume Serial Number is 40AA-859F

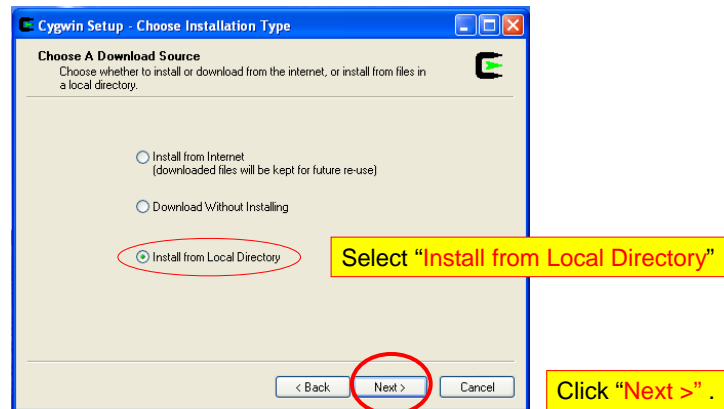
Directory of C:\

10/15/2007  11:10 AM                0 AUTOEXEC.BAT
10/15/2007  11:10 AM                0 CONFIG.SYS
10/15/2007  12:02 PM                <DIR>      DELL
01/06/2009  01:27 PM                <DIR>      Documents and Settings
06/05/2008  09:11 AM                <DIR>      Freeware
10/23/2007  03:22 PM                <DIR>      GMT
10/23/2007  03:22 PM                <DIR>      netcdf
01/06/2009  03:05 PM                <DIR>      Program Files
07/16/2008  04:15 PM                <DIR>      RADIUS
01/05/2009  04:17 PM          585,728 setup.exe
07/26/2008  04:13 PM                <DIR>      TEMP
10/16/2007  05:05 PM                <DIR>      tmp
01/06/2009  01:38 PM                <DIR>      WINDOWS
               3 File(s)          585,728 bytes
               10 Dir(s)      14,287,339,520 bytes free

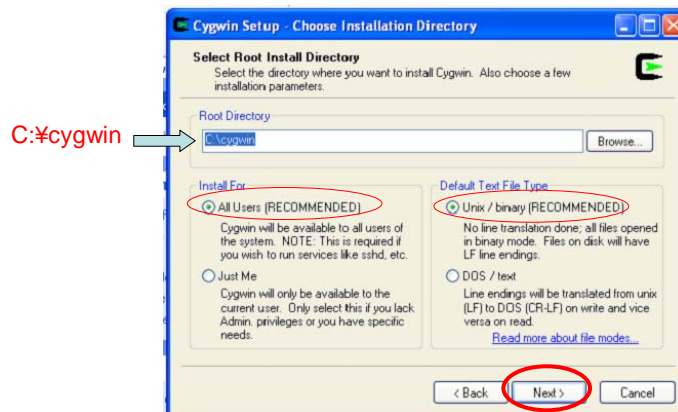
C:\>setup.exe -X
```



Cygwin Setup starts. Click "Next >" .

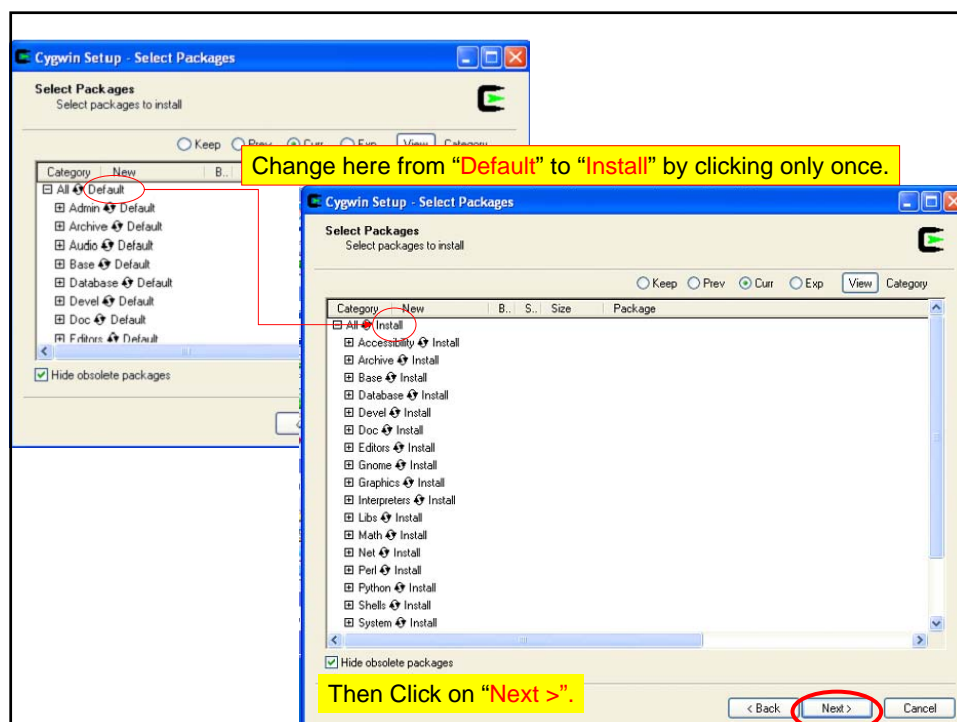
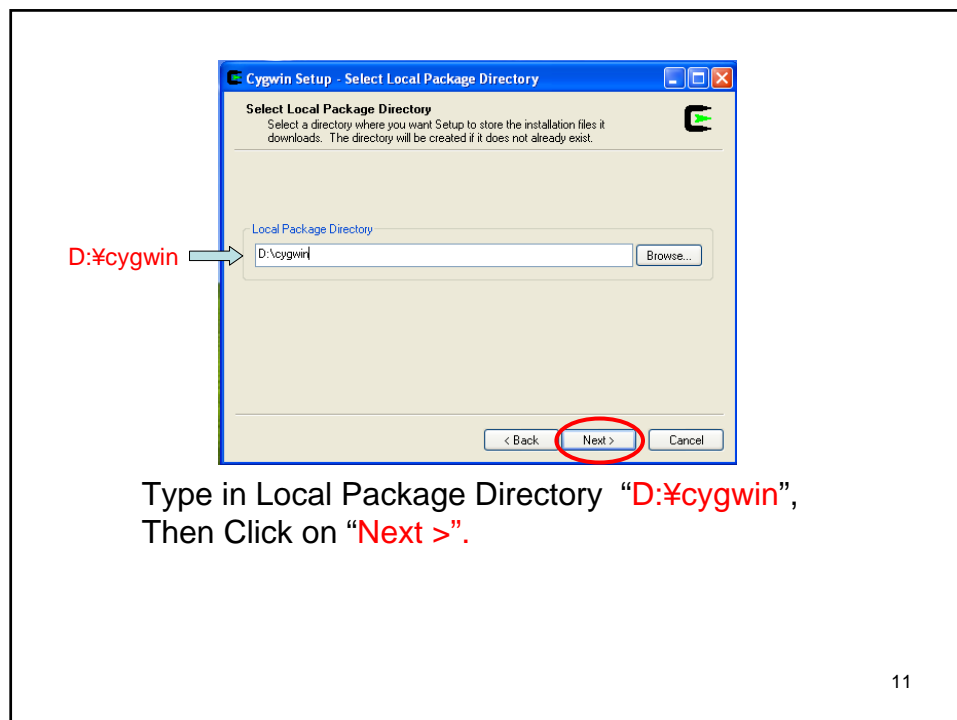


9

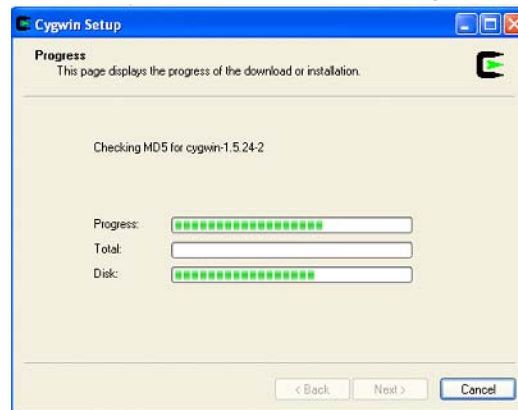


Type in Root Directory "C:\cygwin",
Select "All Users" and "Unix/binary".
Then Click on "Next >".

10

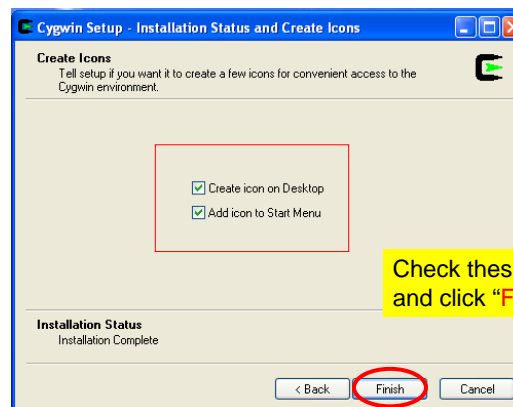


Then, Installer does everything necessary.



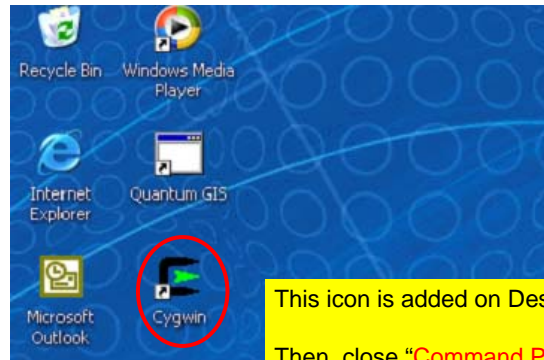
Be patient, this step takes time.

13



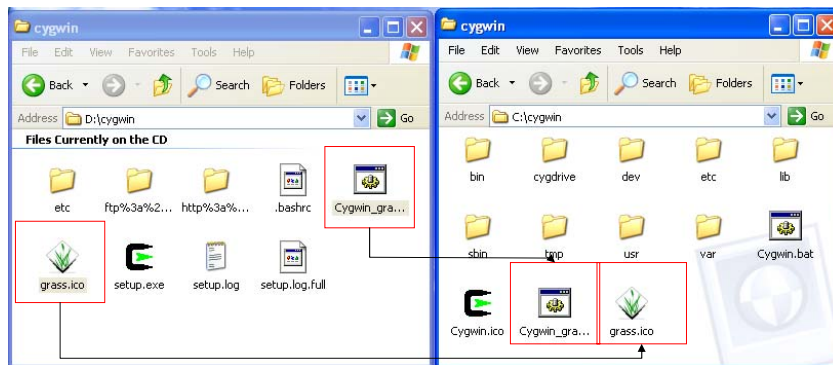
Check these two
and click "Finish".

14



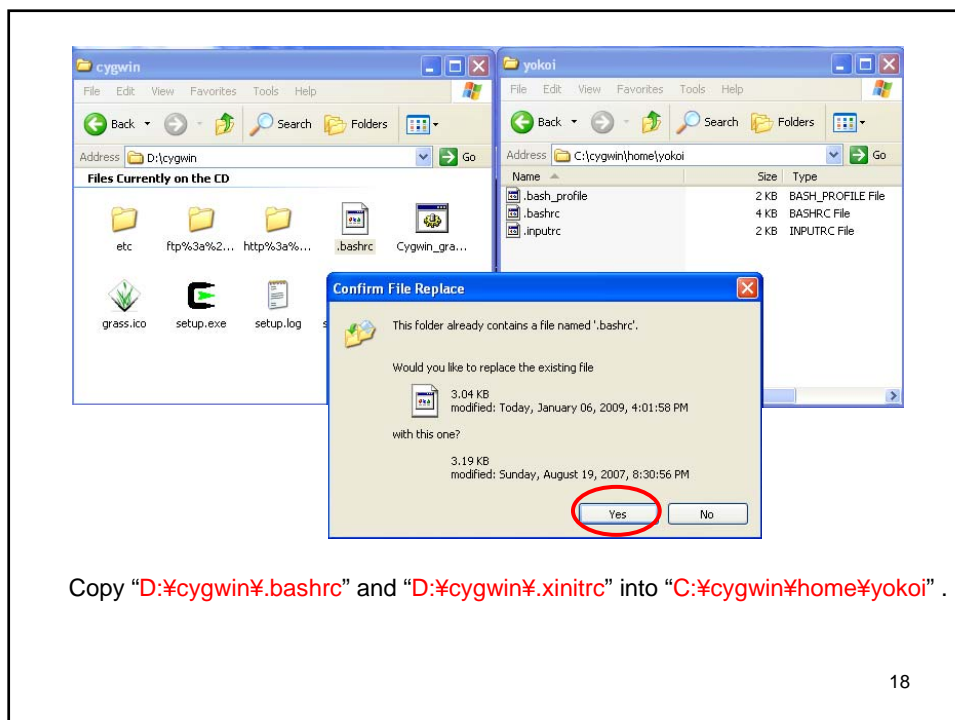
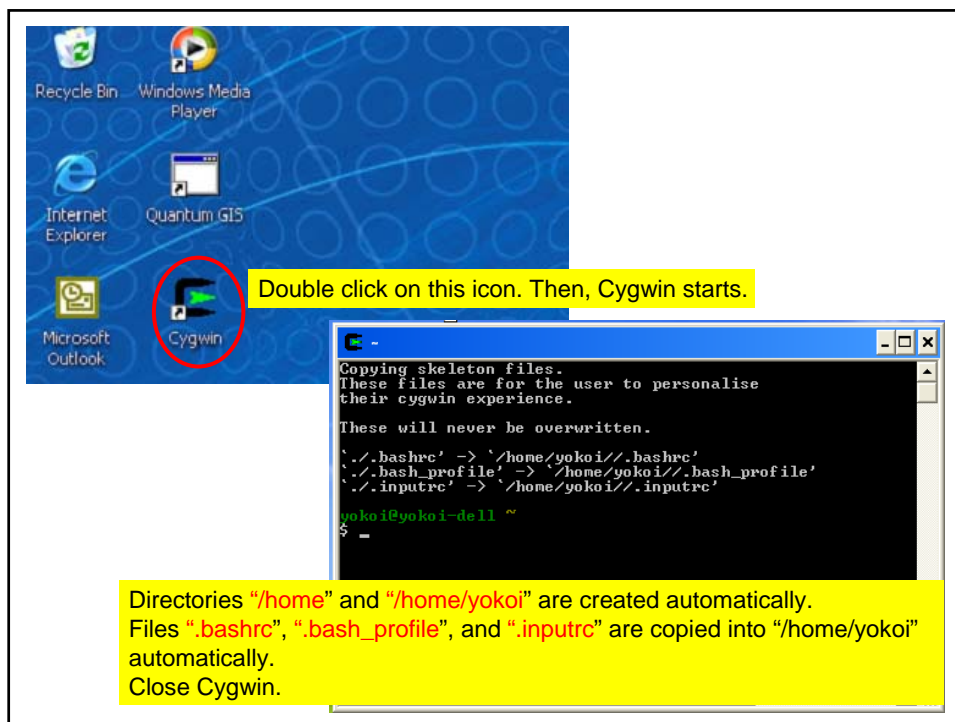
This icon is added on Desktop.
Then, close "Command Prompt" .

15



Copy `D:\cygwin\Cygwin_grass.bat` and `D:\cygwin\grass.ico` into `C:\cygwin` .

16



Reference:

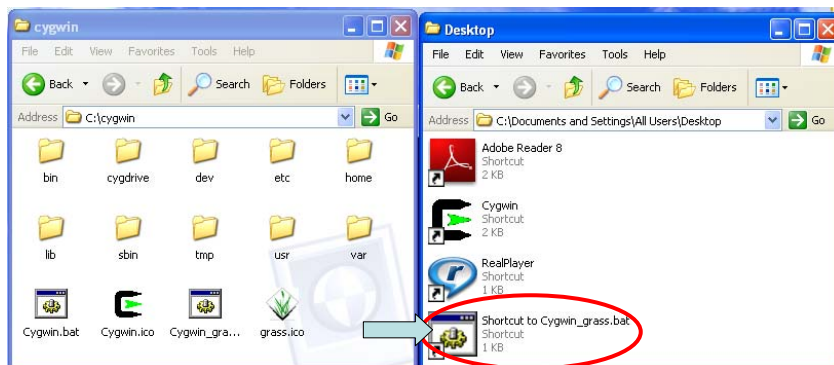
This copied **".bashrc"** file (new one) has only the following five lines.

```
# start GRASS
if [ -n "$DISPLAY" ] && [ -n "$GRASS_AUTOSTART" ]; then
    unset GRASS_AUTOSTART
    exec grass62
fi
```

In case of its absence, please create **".bashrc"** .

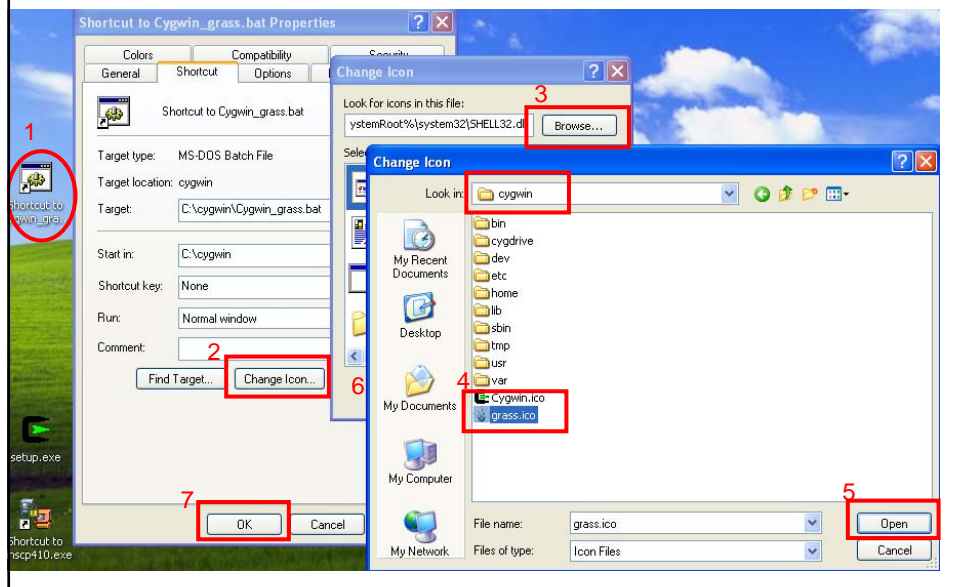
The copied **".xinitrc"** file has the following lines.

```
userresources=$HOME/.Xresources
usermodmap=$HOME/.Xmodmap
sysresources=/etc/X11/xinit/.Xresources
sysmodmap=/etc/X11/xinit/.Xmodmap
if [ -f $sysresources ]; then
    xrdp -merge $sysresources
fi
if [ -f $sysmodmap ]; then
    xmodmap $sysmodmap
fi
if [ -f "$userresources" ]; then
    xrdp -merge "$userresources"
fi
if [ -f "$usermodmap" ]; then
    xmodmap "$usermodmap"
fi
# start some nice programs
twm &
xclock -geometry 50x50-1+1 &
exec xterm -geometry 80x66+0+0 -name login
```

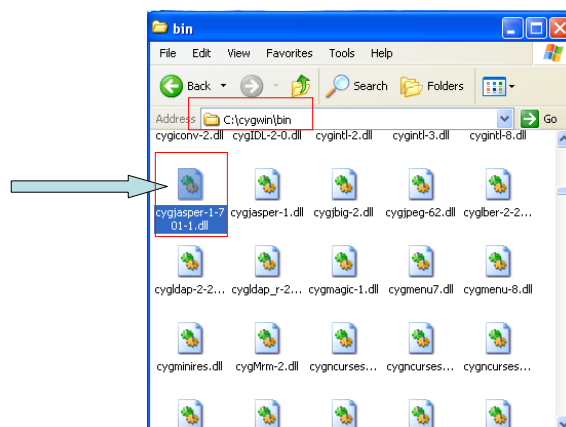


Create a shortcut of **"C:¥cygwin¥Cygwin_grass.bat"**
and move it into **"C:¥Documents and Settings¥All Users¥Desktop"**

“Shortcut to Cygwin_grass.bat” appears on Desktop. Open its property by clicking the right button of mouse and select “Properties”. Then, click on “Change Icon” and “Browse”. Select “C:¥cygwin¥grass.ico” and click on “Open”, “OK” and again “OK”.

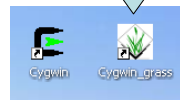


Copy “D:¥cygwin¥copy_to_cygwin_bin¥cygjaper-1-170-1.dll” into “C:¥cygwin¥bin”.
(This step is necessary for Windows XP. Please verify for others by yourself.)





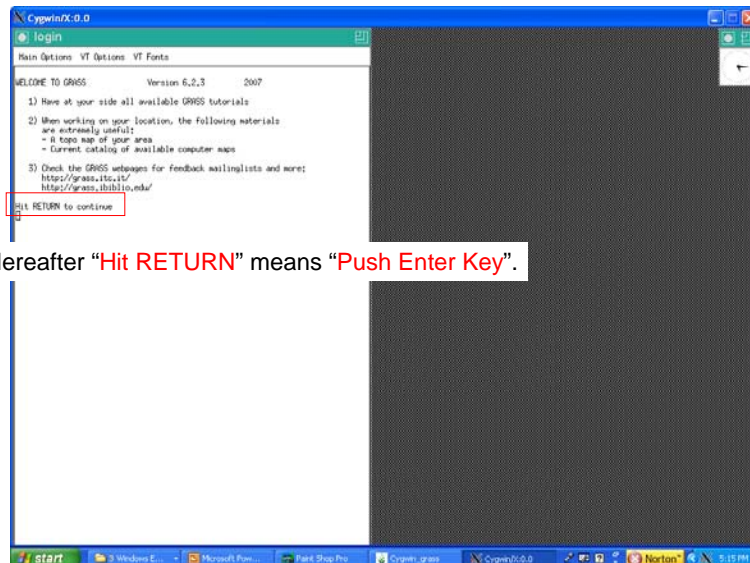
Rename the “Shortcut to Cygwin_grass” to “Cygwin_grass”.



Then, double click on “Cygwin_grass”.

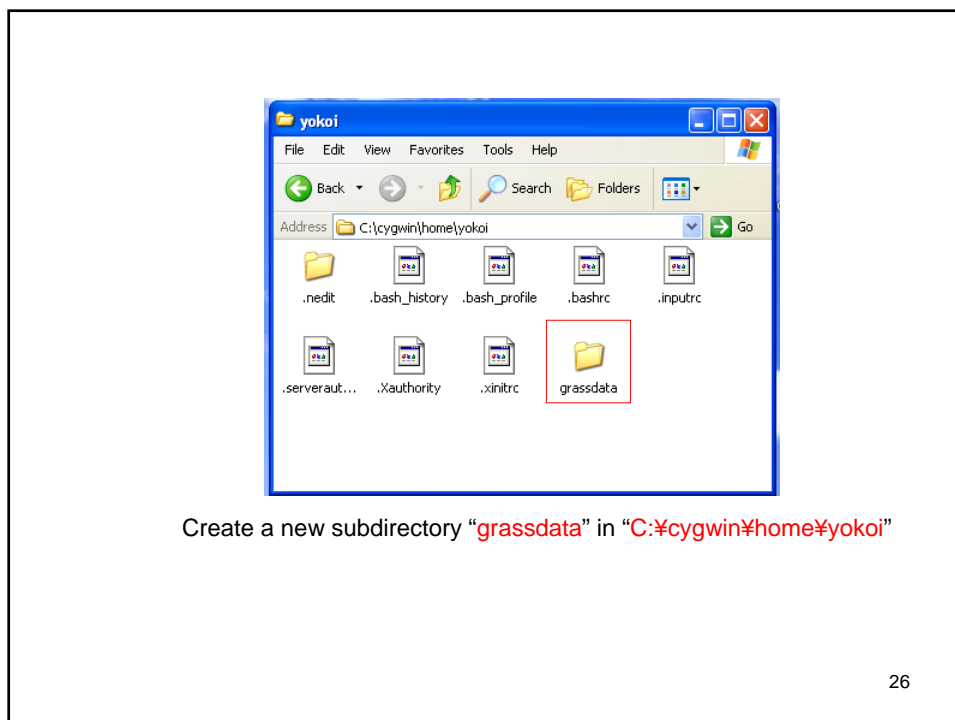
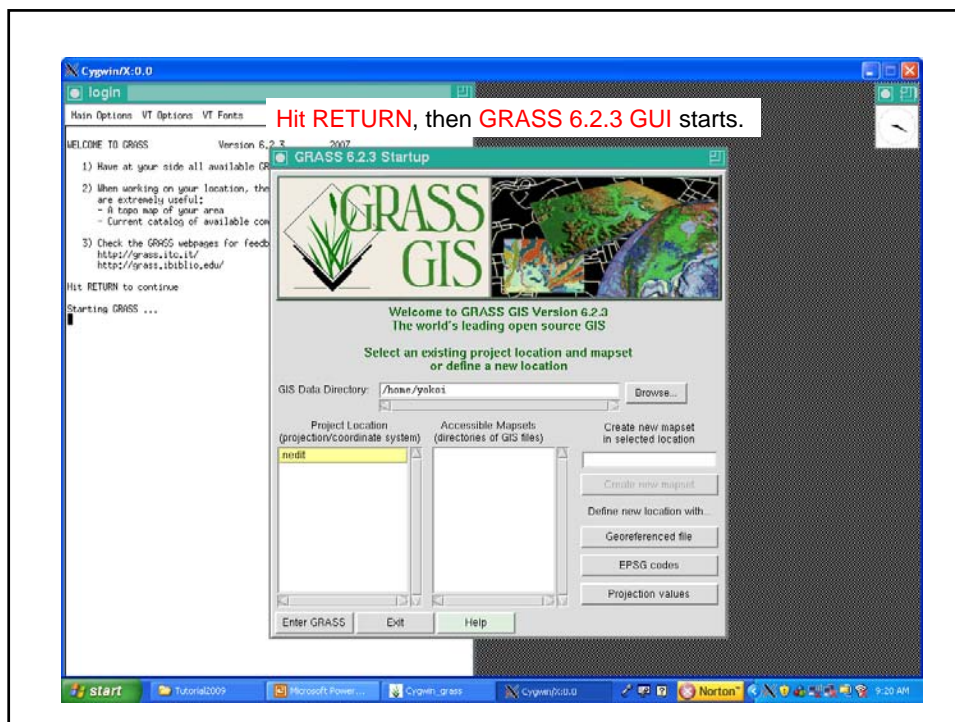
23

Then, “Cygwin” starts, “startx” is automatically typed in and “Cygwin/X:0.0” opens. On “Cygwin/X:0.0” a console “login” opens. There, GRASS 6.2.3 starts.

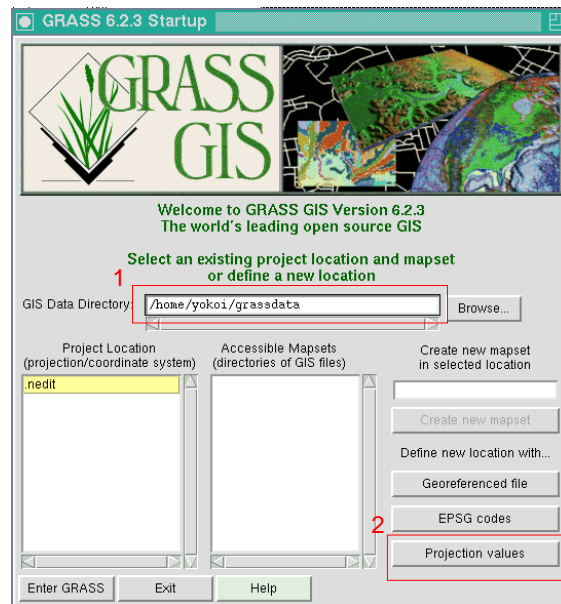


Hereafter “Hit RETURN” means “Push Enter Key”.

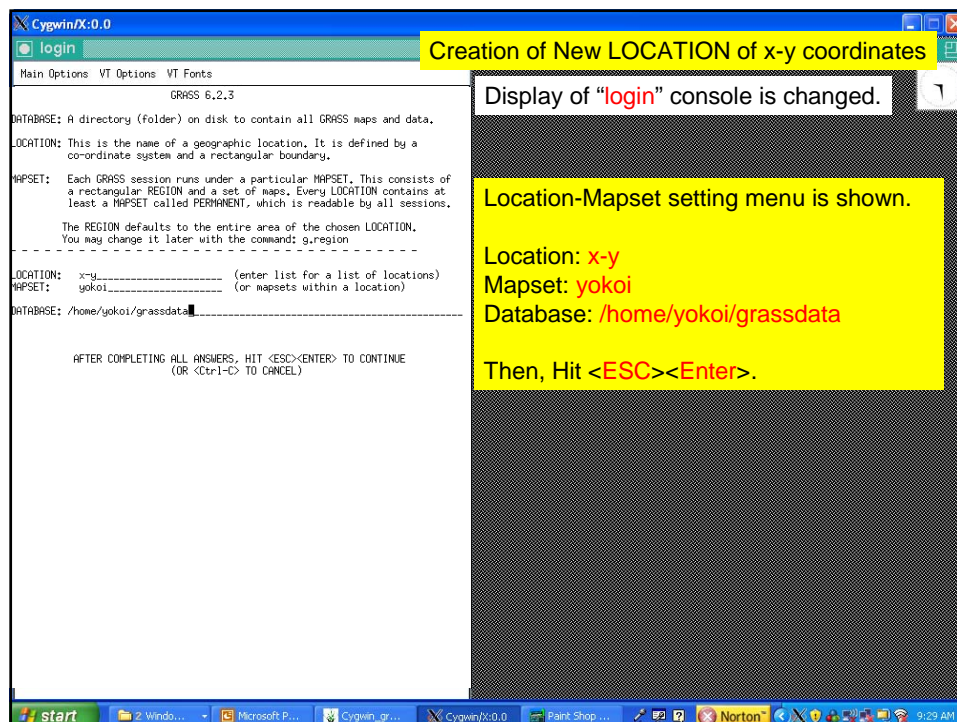
24



Type in **“/home/yokoi/grassdata”** in **“GIS Data Directory”**.
Then, click on **“Projection Values”**



27



```
login
Main Options  VT Options  VT Fonts
LOCATION <x-y> - doesn't exist
Available locations:
-----
Would you like to create location <x-y> ? (y/n) [y] y
```

Type in "y" and hit "Enter".

```
login
Main Options  VT Options  VT Fonts
To create a new LOCATION, you will need the following information:
1. The coordinate system for the database
   x,y (for imagery and other unreferenced data)
   Latitude-Longitude
   UTM
   Other Projection
2. The zone for the UTM database
   and all the necessary parameters for projections other than
   Latitude-Longitude, x,y, and UTM
3. The coordinates of the area to become the default region
   and the grid resolution of this region
4. A short, one-line description or title for the location
Do you have all this information? (y/n) [y] y
```

Type in "y" and hit "Enter".

29

```
login
Main Options  VT Options  VT Fonts
Please specify the coordinate system for location <x-y>
A  x,y
B  Latitude-Longitude
C  UTM
D  Other Projection
RETURN to cancel
> A
x,y coordinate system? (y/n) [y] y
```

Type in "A" to select x-y coordinates and hit "Enter".

Type in "y" and hit "Enter"..

```
login
Main Options  VT Options  VT Fonts
Please enter a one line description for location <x-y>
> x-y coordinate system
=====
x-y coordinate system
=====
ok? (y/n) [y] y
```

Type in a character string and hit "Enter"..

Type in "y" to confirm and hit "Enter".

30

login

Main Options VT Options VT Fonts

DEFINE THE DEFAULT REGION

```

===== DEFAULT REGION =====
| NORTH EDGE:8000 |
| WEST EDGE:0 | EAST EDGE:8000 |
| SOUTH EDGE:0 |
=====
PROJECTION: 0 (x,y)          ZONE: 0

GRID RESOLUTION
  East-West: 1
  North-South: 1

AFTER COMPLETING ALL ANSWERS, HIT <ESC><ENTER> TO CONTINUE
(OR <Ctrl-C> TO CANCEL)

```

Type in the values that define default region for Location "x-y".

North: 8000
 South: 0
 West: 0
 East: 8000
 GRID RESOLUTION
 East-West: 1
 North-South: 1
 Then, Hit <ESC><Enter>

31

login

Main Options VT Options VT Fonts

```

projection: 0 (x,y)
zone: 0
north:      8000
south:      0
east:       8000
west:       0

e-w res:    1
n-s res:    1

total rows: 8000
total cols: 8000
total cells: 64,000,000

Do you accept this region? (y/n) [y] > y
LOCATION <x-y> created!

Hit RETURN -->

```

Type in "y" and hit "Enter".
 Location "x-y" is created.

Hit "Enter".

32

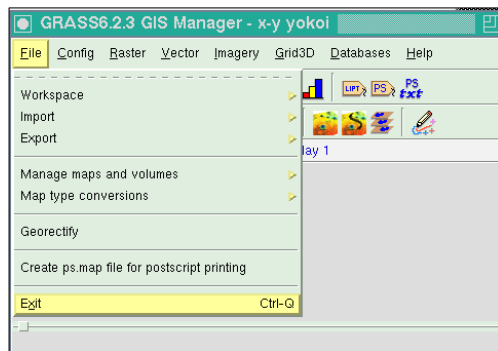
Creation of MAPSET

Hit <ESC><Enter>.

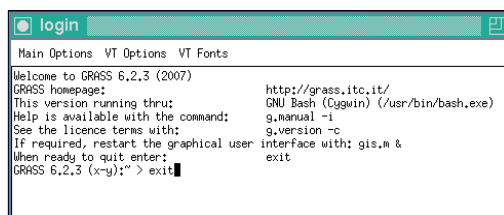
33

GRASS 6.2.3 GUI starts.

17



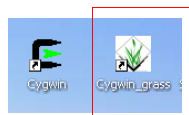
Click “File”-“Exit” to stop GUI.



Type in “exit” and hit <Enter> to stop GRASS6.2.3.
Then, “login”, “Cygwin/X:0.0” and “Cygwin” are closed automatically.

35

Creation of New LOCATION of latitude-longitude coordinates (wgs84)



Start GRASS double clicking on ‘Cygwin_grass’.



Click on ‘Projection values’.

36

```

login
Main Options VT Options VT Fonts
GRASS 6.2.3
DATABASE: A directory (folder) on disk to contain all GRASS maps and data.
LOCATION: This is the name of a geographic location. It is defined by a
co-ordinate system and a rectangular boundary.
MAPSET: Each GRASS session runs under a particular MAPSET. This consists of
a rectangular REGION and a set of maps. Every LOCATION contains at
least a MAPSET called PERMANENT, which is readable by all sessions.
The REGION defaults to the entire area of the chosen LOCATION.
You may change it later with the command: g.region
-----
LOCATION: lat-long(wgs84) (enter list for a list of locations)
MAPSET: user (or mapsets within a location)
DATABASE: /home/yuko/grassdata
-----
AFTER COMPLETING ALL ANSWERS, HIT <ESC><ENTER> TO CONTINUE
(OR <Ctrl-C> TO CANCEL)

```

Type '**lat-long(wgs84)**' in LOCATION,
'**user**' in MAPSET

Then, hit '**Esc**' and '**Enter**'.

```

login
Main Options VT Options VT Fonts
LOCATION <lat-long(wgs84)> - doesn't exist
Available locations:
-----
x-y
-----
Would you like to create location <lat-long(wgs84)> ? (y/n) [y] y

```

Type in '**y**' and hit '**Enter**'.

37

```

login
Main Options VT Options VT Fonts
To create a new LOCATION, you will need the following information:
1. The coordinate system for the database
   x,y (for imagery and other unreferenced data)
   Latitude-Longitude
   UTM
   Other Projection
2. The zone for the UTM database
   and all the necessary parameters for projections other than
   Latitude-Longitude, x,y, and UTM
3. The coordinates of the area to become the default region
   and the grid resolution of this region
4. A short, one-line description or title for the location
Do you have all this information? (y/n) [y] y

```

Type in '**y**' and hit '**Enter**'.

```

login
Main Options VT Options VT Fonts
Please specify the coordinate system for location <lat-long(wgs84)>
A x,y
B Latitude-Longitude
C UTM
D Other Projection
RETURN to cancel
> B
Latitude-Longitude coordinate system? (y/n) [y] y

```

Type in '**B**' and hit '**Enter**'.

Then, type in '**y**' and hit '**Enter**'.

38

login

Main Options VT Options VT Fonts

Please enter a one line description for location <lat-long(wgs84)>
> geographical coordinates (wgs84)
=====
geographical coordinates (wgs84)
=====
ok? (y/n) [y] y
Do you wish to specify a geodetic datum for this location?(y/n) [y] y
Please specify datum name
Enter 'list' for the list of available datums
or 'custom' if you wish to enter custom parameters
Hit RETURN to cancel request
>wgs84
Now select Datum Transformation Parameters
Please think carefully about the area covered by your data
and the accuracy you require before making your selection.
Enter 'list' to see the list of available Parameter sets
Enter the corresponding number, or <RETURN> to cancel request
>1

Type in a text string and hit 'Enter'.
geographical coordinates (wgs84)

Type in 'y' and hit 'Enter'.

Type in 'y' and hit 'Enter'.

Type in 'wgs84' and hit 'Enter'.

Type in '1' and hit 'Enter'.

login

Main Options VT Options VT Fonts

DEFINE THE DEFAULT REGION
===== DEFAULT REGION =====
| NORTH EDGE:90N |
WEST EDGE | EAST EDGE
180W | 180E
| SOUTH EDGE:90S |
=====
PROJECTION: 3 (Latitude-Longitude) ZONE: 0
GRID RESOLUTION
East-West: 0.000001
North-South: 0.000001
AFTER COMPLETING ALL ANSWERS, HIT <ESC><ENTER> TO CONTINUE
(OR <Ctrl-C> TO CANCEL)

Type in
NORTH: 90N
WEST 180W EAST: 180E
SOUTH: 90S
GRID RESOLUTION
Esat-West : 0.000001
North-South: 0.000001
Then, hit 'Esc' and 'Enter'.

39

login

Main Options VT Options VT Fonts

projection: 3 (Latitude-Longitude)
zone: 0
north: 90N
south: 90S
east: 180E
west: 180W
e-w res: 0:00:00.0036
n-s res: 0:00:00.0036
total rows: 180000000
total cols: 360000000
total cells: 64,800,000,000,000,000
Do you accept this region? (y/n) [y] > y
LOCATION <lat-long(wgs84)> created!
Hit RETURN -->

Type in 'y' and hit 'Enter'.
Again hit 'Enter'.

login

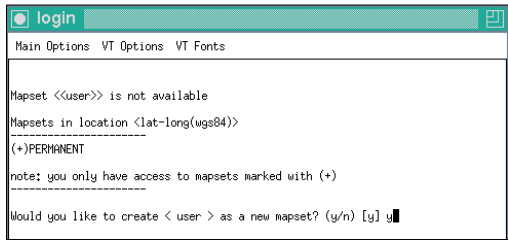
Main Options VT Options VT Fonts

GRASS 6.2.3
DATABASE: A directory (folder) on disk to contain all GRASS maps and data.
LOCATION: This is the name of a geographic location. It is defined by a
coordinate system and a rectangular boundary.
MAPSET: Each GRASS session runs under a particular MAPSET. This consists of
a rectangular REGION and a set of maps. Every LOCATION contains at
least a MAPSET called PERMANENT, which is readable by all sessions.
The REGION defaults to the entire area of the chosen LOCATION.
You may change it later with the command s.region

LOCATION: lat-long(wgs84) (enter list for a list of locations)
MAPSET: user (or mapsets within a location)
DATABASE: /home/gkoi/grassdata
AFTER COMPLETING ALL ANSWERS, HIT <ESC><ENTER> TO CONTINUE
(OR <Ctrl-C> TO CANCEL)

Creation of MAPSET 'user'.
Hit 'Esc' and 'Enter'.

40



login

Main Options VT Options VT Fonts

Mapset <<user>> is not available

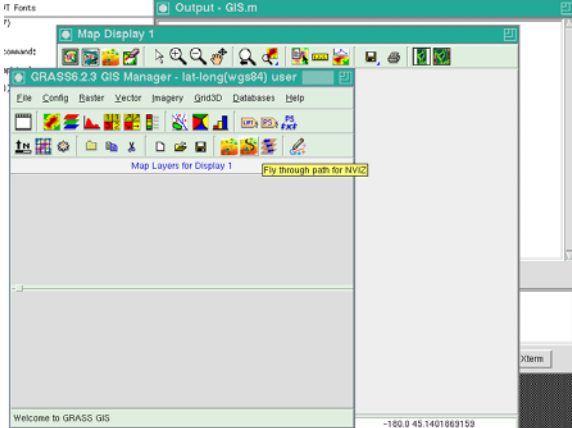
Mapsets in location <lat-long(wgs84)>

(+)PERMANENT

note: you only have access to mapsets marked with (+)

Would you like to create < user > as a new mapset? (y/n) [y] **y**

Type in '**y**' and hit '**Enter**'.



GRASS6.2.3 GIS Manager - lat-long(wgs84) user

File Config raster vector imagery grid3d databases help

Map Layers for Display 1

Welcome to GRASS GIS

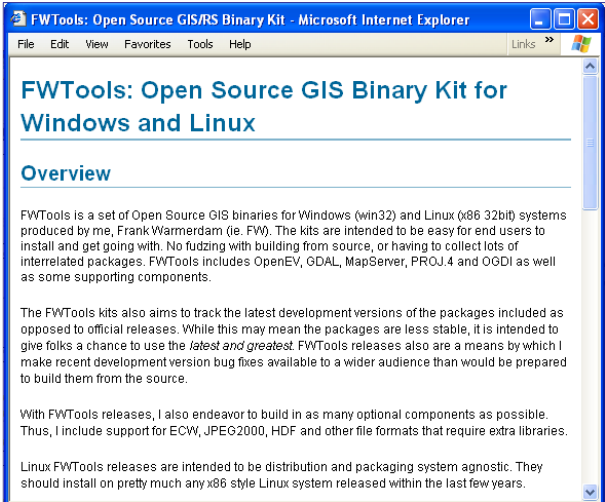
GUI of GRASS starts with LOCATION '**lat-long (wgs84)**' and MAPSET '**user**'.

Close GUI using '**File**' and '**Exit**'.

Exit from GRASS typing in '**exit**' and hit '**Enter**'.

41

2. FWTools1.3.4.



FWTools: Open Source GIS/RS Binary Kit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

FWTools: Open Source GIS Binary Kit for Windows and Linux

Overview

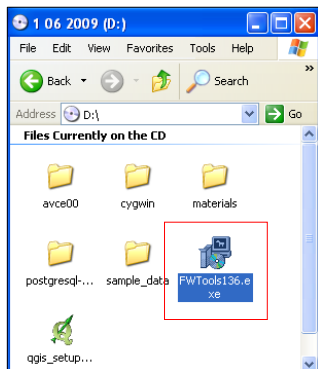
FWTools is a set of Open Source GIS binaries for Windows (win32) and Linux (x86 32bit) systems produced by me, Frank Warmerdam (ie. FW). The kits are intended to be easy for end users to install and get going with. No fudging with building from source, or having to collect lots of interrelated packages. FWTools includes OpenEV, GDAL, MapServer, PROJ.4 and OGD as well as some supporting components.

The FWTools kits also aims to track the latest development versions of the packages included as opposed to official releases. While this may mean the packages are less stable, it is intended to give folks a chance to use the *latest and greatest*. FWTools releases also are a means by which I make recent development version bug fixes available to a wider audience than would be prepared to build them from the source.

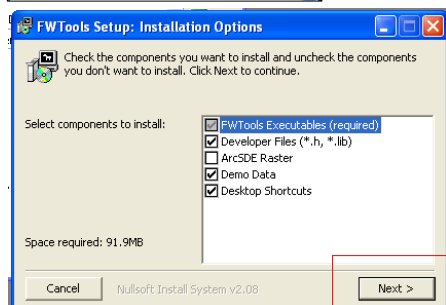
With FWTools releases, I also endeavor to build in as many optional components as possible. Thus, I include support for ECW, JPEG2000, HDF and other file formats that require extra libraries.

Linux FWTools releases are intended to be distribution and packaging system agnostic. They should install on pretty much any x86 style Linux system released within the last few years.

42



Double click on **FWTools136** icon in **D:¥**.

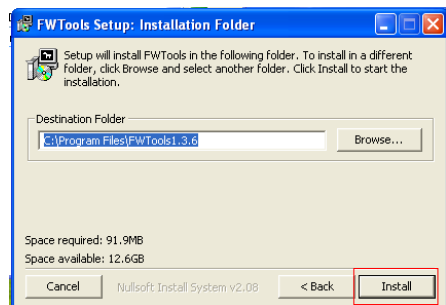


“FWTools Setup” starts.

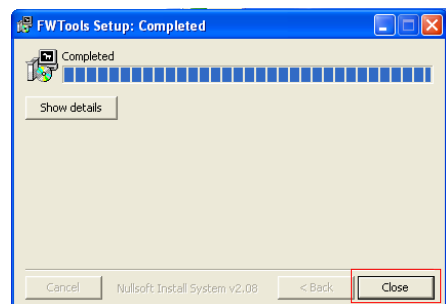
Any change is not necessary.

Click on **“Next>”**.

43



Click on **“Install”**.

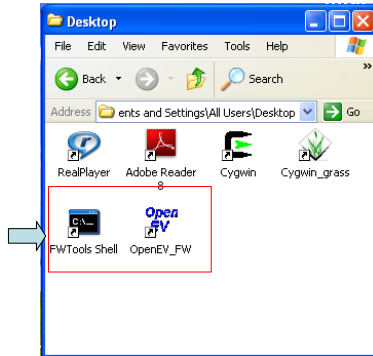


When completed, click **Close**.

44



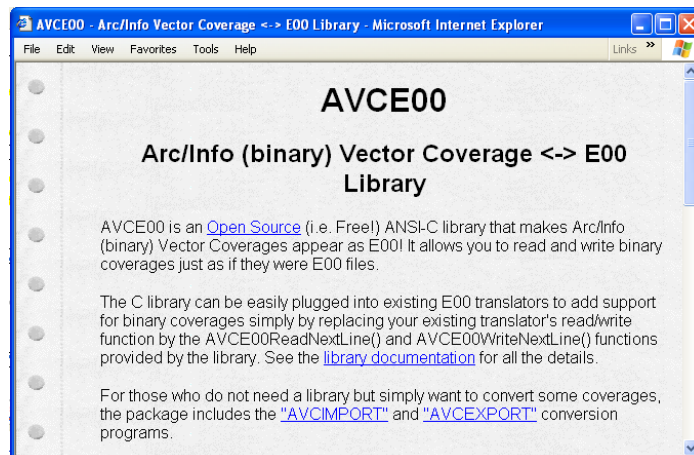
These two icons are added on Desktop.



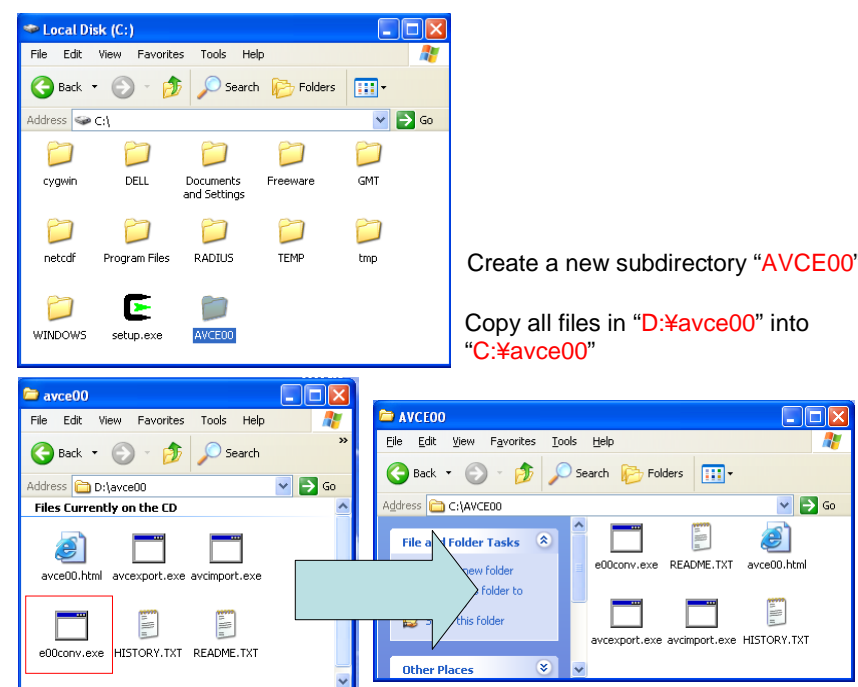
Move these two icons to "C:\Documents and Settings\All Users\Desktop".

45

3. AVCE00-2.0.0-WIN32.



46



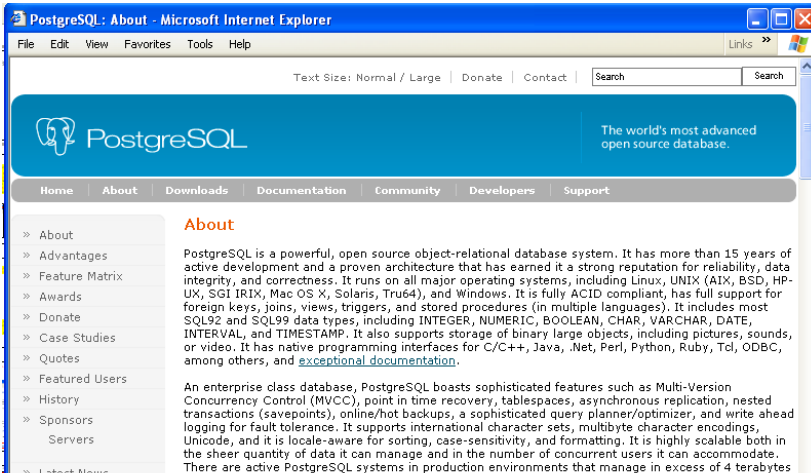
The first screenshot shows the 'Local Disk (C:)' window with various folders. The second screenshot shows the 'avce00' folder in 'D:\', with a red box highlighting 'e00conv.exe'. The third screenshot shows the 'AVCE00' folder in 'C:\', with a blue arrow pointing from the file in the second window to the new folder in this window.

Create a new subdirectory "AVCE00" in "C:¥".

Copy all files in "D:¥avce00" into "C:¥avce00"

47

4. "PostgreSQL-8.2.6"



The screenshot shows the PostgreSQL website in Microsoft Internet Explorer. The page has a blue header with the PostgreSQL logo and the text 'The world's most advanced open source database.' Below the header is a navigation bar with links: Home, About, Downloads, Documentation, Community, Developers, and Support. The main content area is titled 'About' and contains text about PostgreSQL's features and history. A sidebar on the left lists various links like 'About', 'Advantages', 'Feature Matrix', etc.

48

Installing PostGIS(PostgreSQL) as yokoi

User Account=postgres
Password=seismo

Create Account (Windows)

Account=yokoi

Create a new account
"postgres" of Windows.

Account=user

On MicroSoft Windows

The screenshot shows a Windows XP desktop with a blue taskbar. The 'Control Panel' window is open, displaying various system settings icons. The 'User Accounts' window is also open, showing the 'Name the new account' dialog box. The dialog box has a text field containing 'postgres' and a 'Next >' button. A yellow callout box with red text provides instructions: 'Create a new account "postgres". Click on "start", "control panel" and "User Account". Then, select "Create a new account". Type in "postgres" for the new account and click on "Next >".' The 'User Accounts' window also has a 'Pick a task...' section with a red box around the 'Create a new account' option.

Create a new account "postgres".

Click on "start", "control panel" and "User Account". Then, select "Create a new account". Type in "postgres" for the new account and click on "Next >".

Pick a task...

- Change an account
- Create a new account
- Change the way users log on or off

50

Select "Limited" type and click on "Create Account".

Then, verify the appearance of the account icon. Then, double click on it.

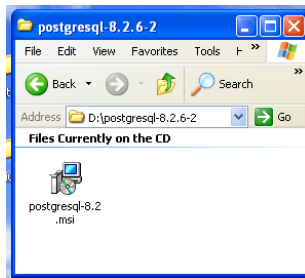
51

Click on "Create a password".

Type in a new password, type it again to confirm and type in a word to use as a password hint. Then, don't forget it.
example: password="seismo"
hint="zisin"

Then, click on "Create Password".

52

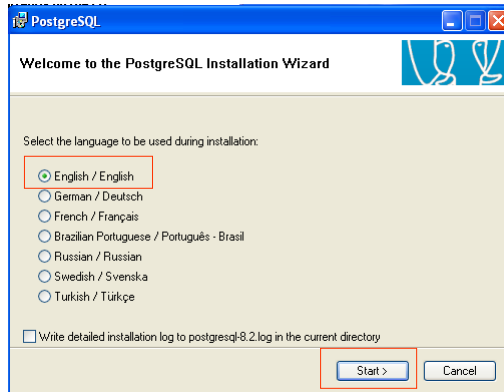


Installation

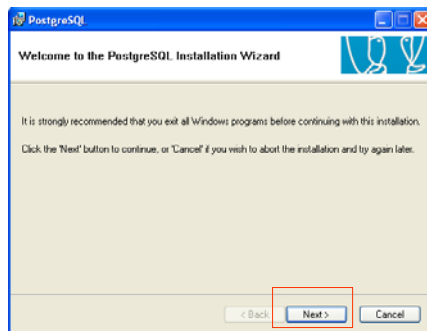
Double Click on “**postgres-8.2.msi**” in “**D:\postgresql-8.2.6-2**”.

Then, “**PostgreSQL Installation Wizard**” starts.

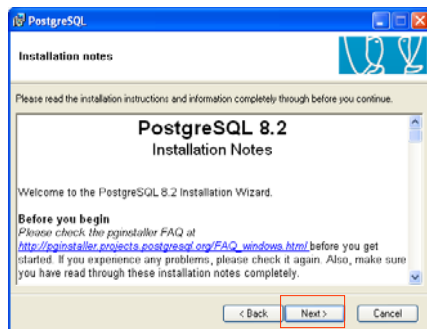
Select the language and click on “**Start >**”.



53

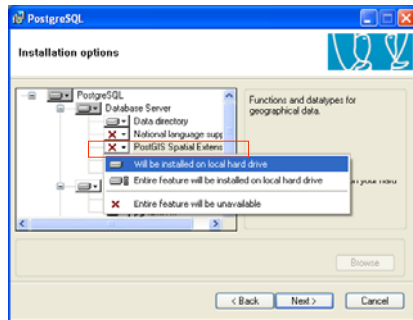


Click on “**Next >**”.

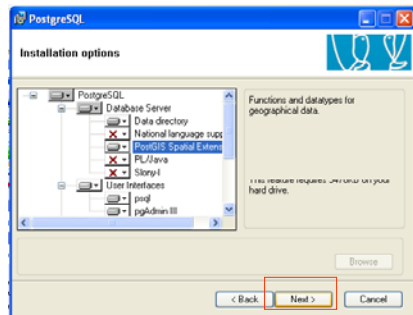


Read Installation Notes.
Click on “**Next >**”.

54



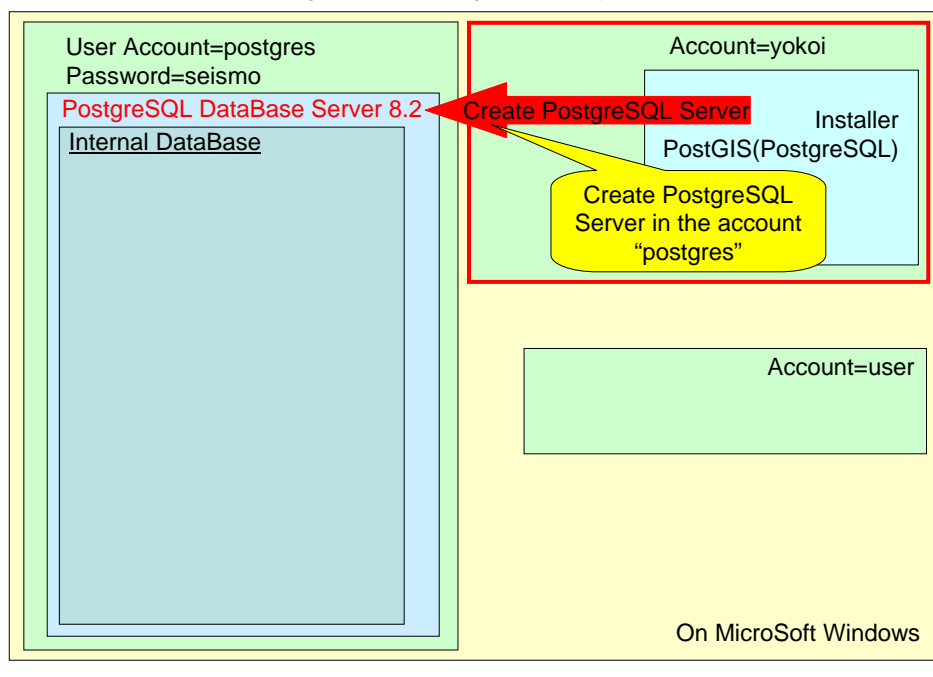
Activate "PostGIS" selecting "will be installed on local hard drive".

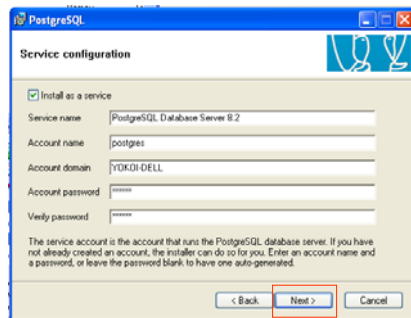


Click on "Next >".

55

Installing PostGIS(PostgreSQL) as yokoi

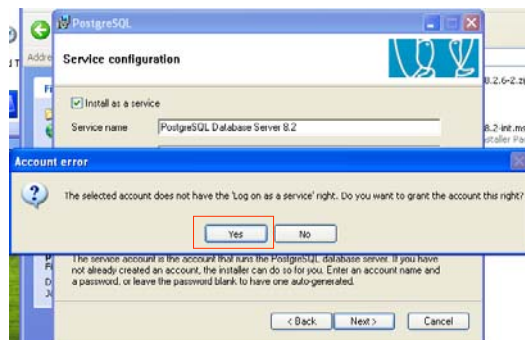




Set the Service Configuration:
Type in password of the account "postgres".

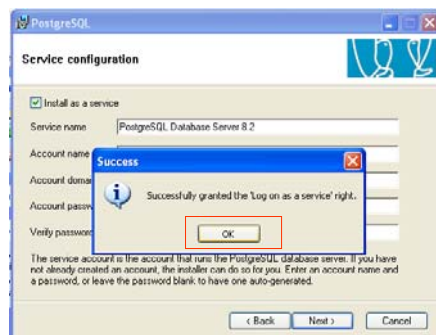
Example: password="seismo"

Then, click on "Next>".



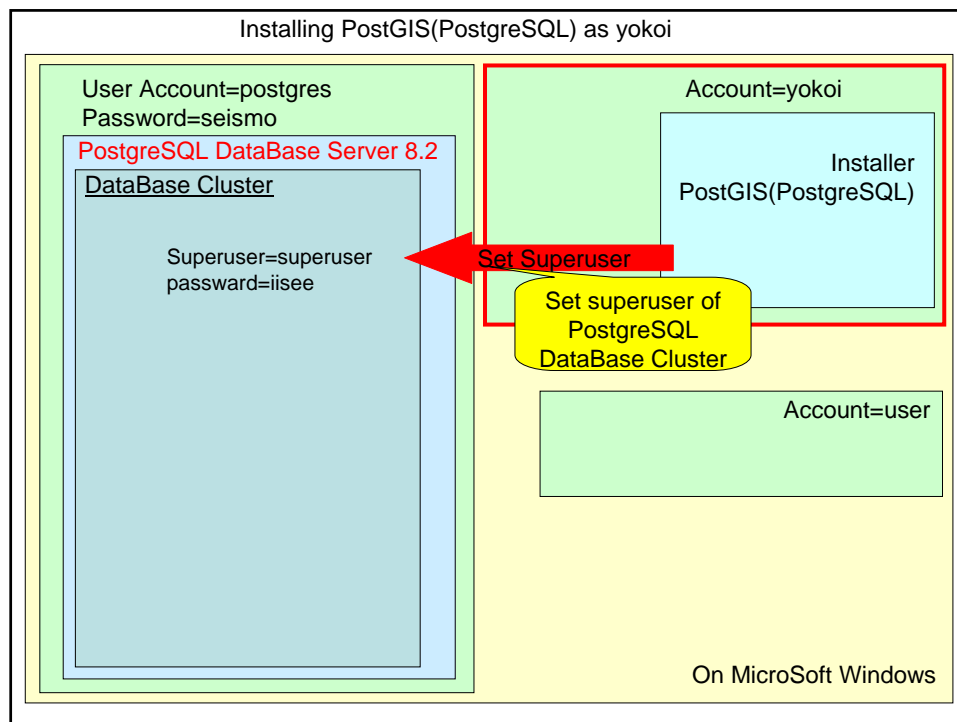
Click on "Yes" to grant the
account right as "Log on as a
service".

57



Successfully granted the "Log on
as a service" right.
Click on "OK".

58



PostgreSQL

Initialise database cluster

☒ Initialize database cluster

Port number: 5432

Addresses: ☐ Accept connections on all addresses, not just localhost

Locale: C

Encoding: SQL_ASCII

Superuser name: superuser

Password: iisee

Password (again): iisee

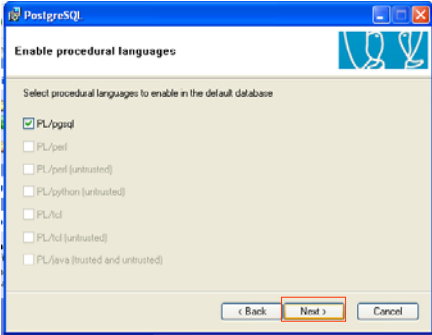
< Back Next > Cancel

Set superuser name and its password of the internal database cluster. It is recommended to use a different password than that of the account "postgres".

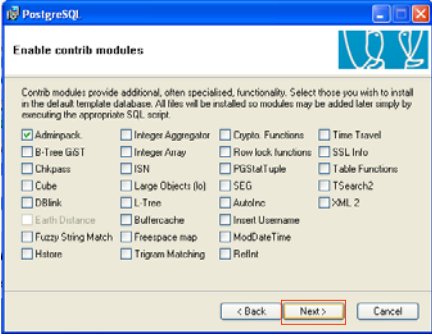
Example: superuser name=superuser
password =iisee

Then, click on "Next>".

60

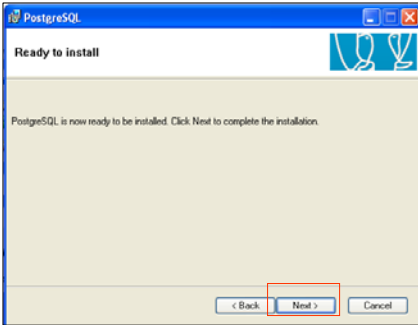


Click on "OK" .

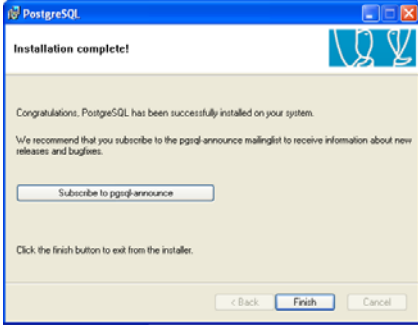


Click on "OK" .

61



Click on "OK" .



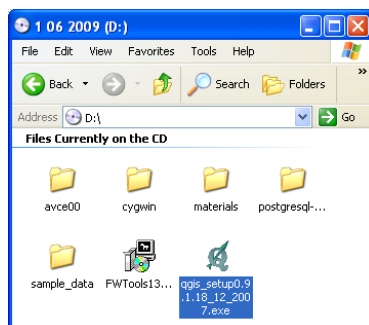
Click on "Finish" . Install is completed.

62

5. Quantum GIS 0.9.1

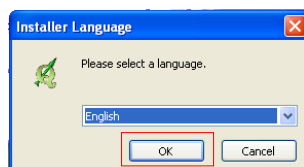


63



Double click on
"D:\qgis_setup0.9.1.18_12_2007.exe"

Note: The installer of a newer version of QGIS "QGis-0.11.0-2-Setup.exe" is also included in CD. The setting process is almost the same as that for Ver. 0.9.1 although the newer one is improved and more stable.

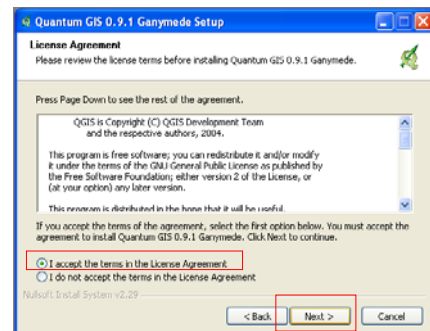


Select language.
Click on "OK".

64

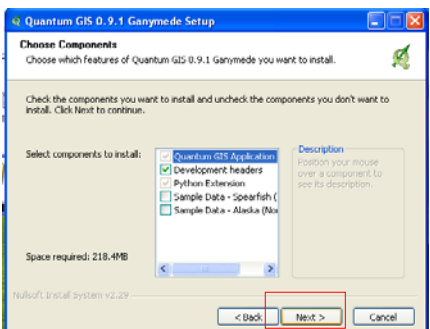


Click on "Next>".

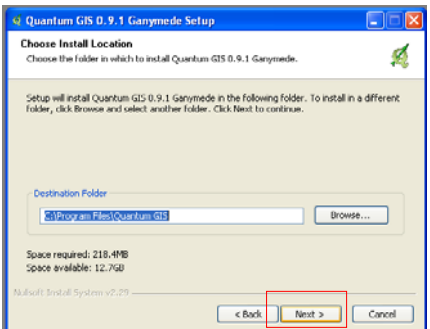


Read "License Agreement".
Select "I accept ...".
Click on "Next>".

65

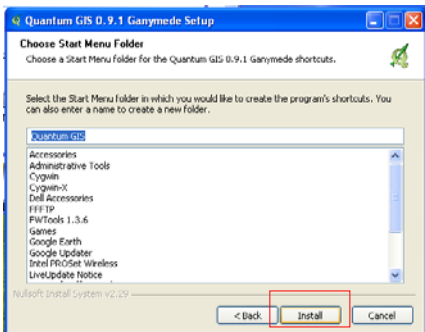


Click on "Next>".

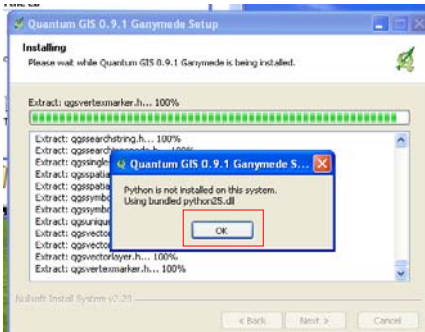


Click on "Next>".

66

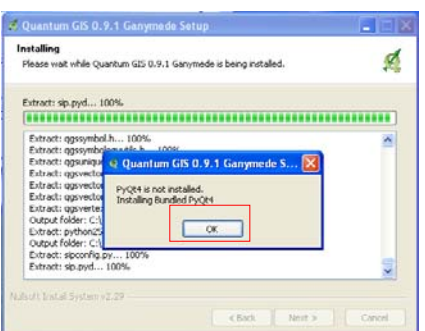


Click on **"Install"**.
Then, wait.

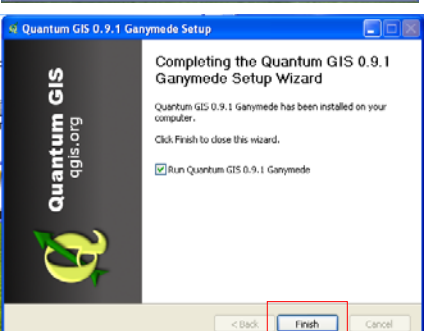


Don't worry about it.
Click on **"OK"**.

67



Don't worry about it.
Click on **"OK"**.



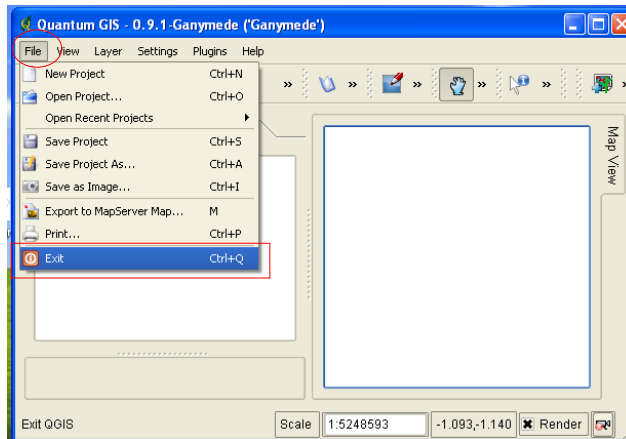
Click on **"Finish"**.

68



Quantum GIS Logo appears first.
Then, Quantum GIS opens.

Close it using "File" and "Exit".



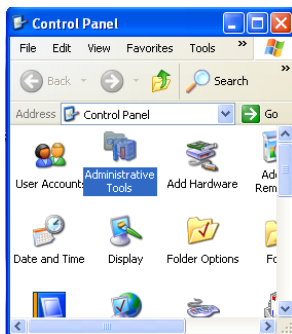
69

6. ODBC setting

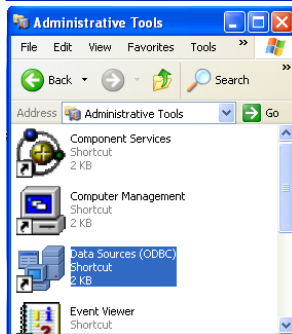
Using Data Sources (ODBC)

You can use Data Sources Open Database Connectivity (ODBC) to access data from a variety of database management systems. For example, if you have a [program](#) that accesses data in a SQL database, Data Sources (ODBC) will let you use the same program to access data in a Visual FoxPro database. To do this, you must add software components called drivers to your system. Data Sources (ODBC) helps you add and configure these drivers.

70

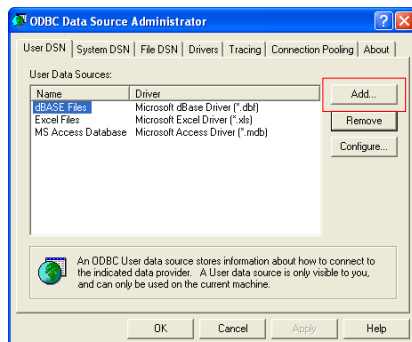


Open "Administrative Tools" in "Control Panel".

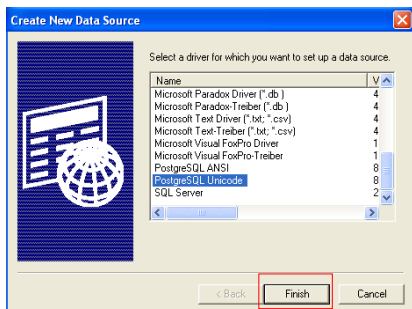


Open "Data Sources(ODBC)" in "Administrative Tools".

71

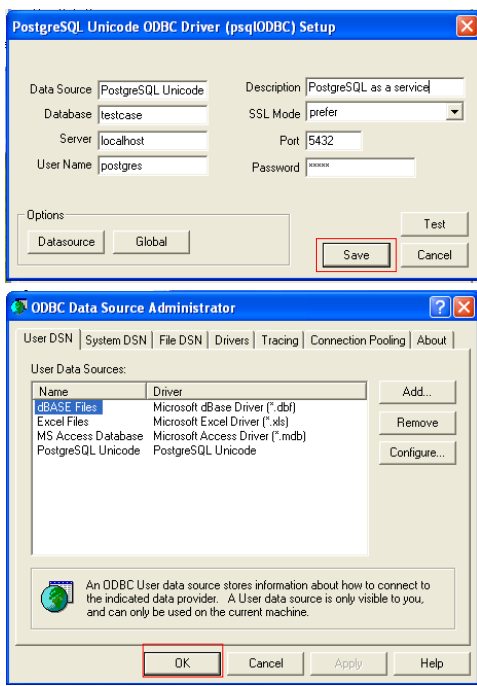


"ODBC Data Source Administrator" opens.
Then, click on "Add".



"Create New Data Source" opens.
Then, move down the scroll bar and select
"PostgreSQL Unicode".
Click on "Finish".

72



The top window is the "PostgreSQL Unicode ODBC Driver (psqlODBC) Setup" dialog. It contains fields for Data Source (PostgreSQL Unicode), Description (PostgreSQL as a service), Database (testcase), Server (localhost), User Name (postgres), and Port (5432). There are buttons for "Save", "Test", "Cancel", "Datasource", and "Global". The "Save" button is highlighted with a red box.

The bottom window is the "ODBC Data Source Administrator" dialog. It shows a list of User Data Sources with columns "Name" and "Driver". The "PostgreSQL Unicode" entry is selected. There are buttons for "Add...", "Remove", and "Configure...". The "OK" button is highlighted with a red box.

"PostgreSQL Unicode ODBC Driver (psqlODBC) Setup" opens.

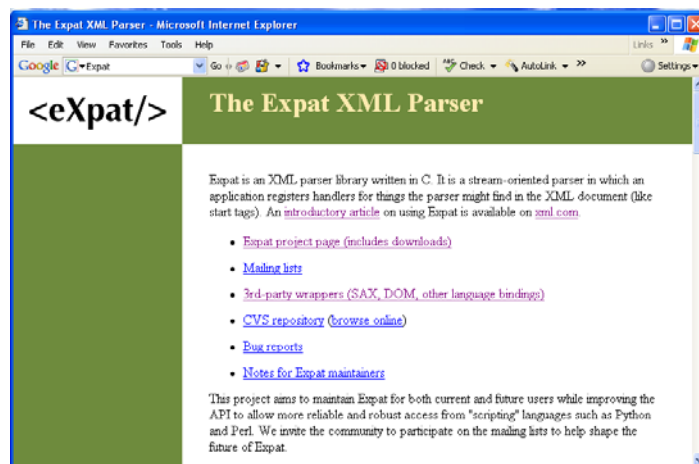
Data Source= **PostgreSQL Unicode**
 Database= **testcase** (arbitrary name)
 Server= **localhost** (Fixed)
 User Name= **postgres** (for PostgreSQL)
 Description= **any text string**
 SSL Mode=**prefer** (Fixed)
 Port= **5432** (Fixed)
 Password= **iisee** (password for "postgres")

Then, click on "Save".

Click on "OK" of "ODBC Data Source Administrator".

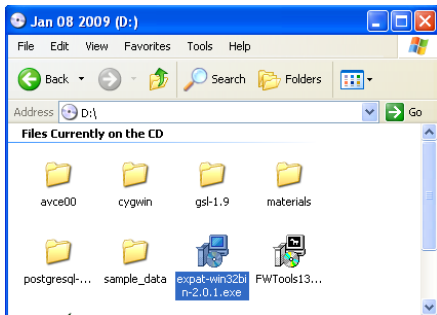
73

7. Expat 2.0.1

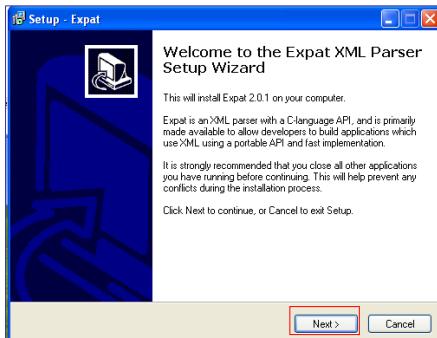


Expat is optional and required only if you want to use GPS plugins.

74

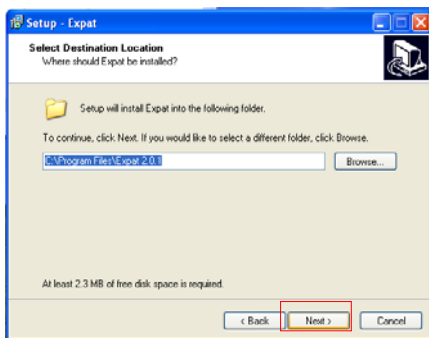


Double click on “D:\expat-win32bin-2.0.1.exe”

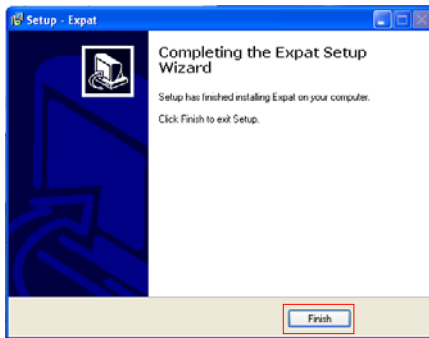


Click on “Next>”.

75



Click on “Next>”.

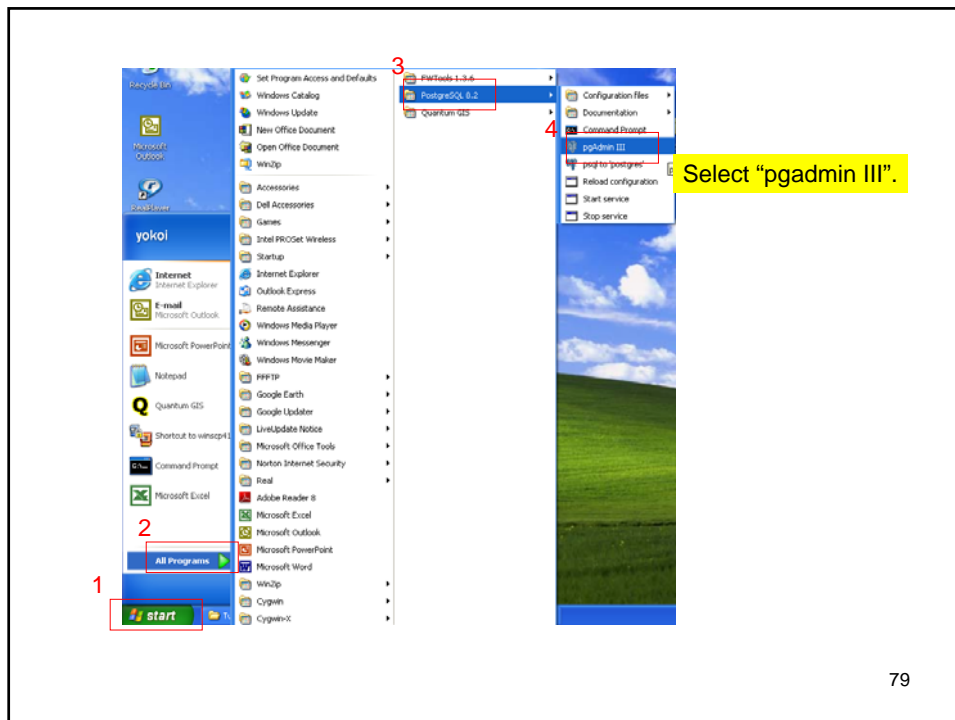


Click on “Finish”.

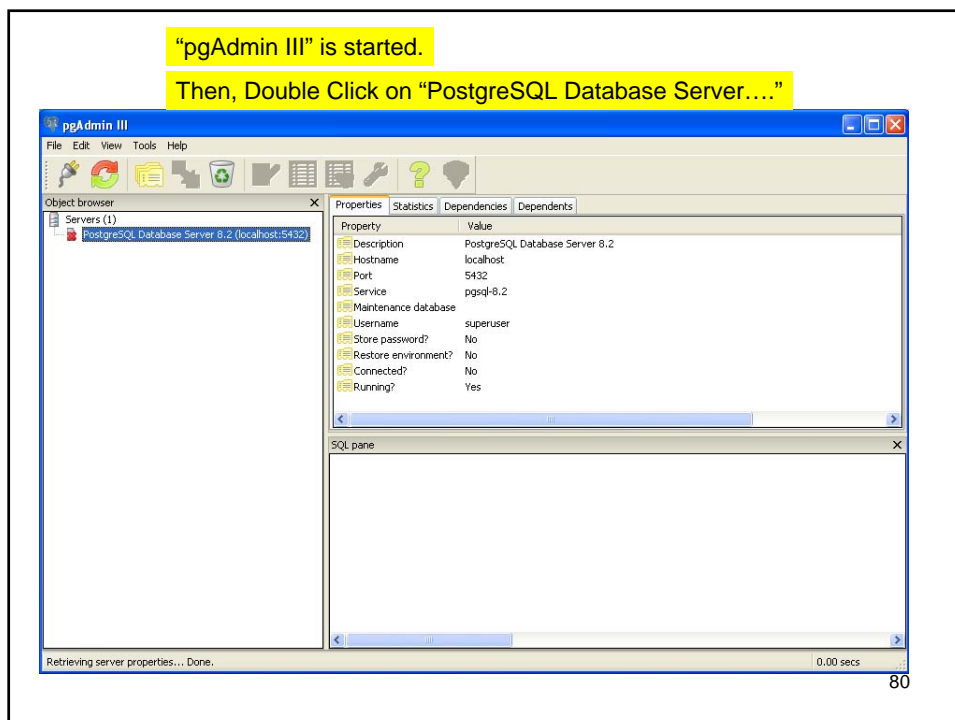
76

77



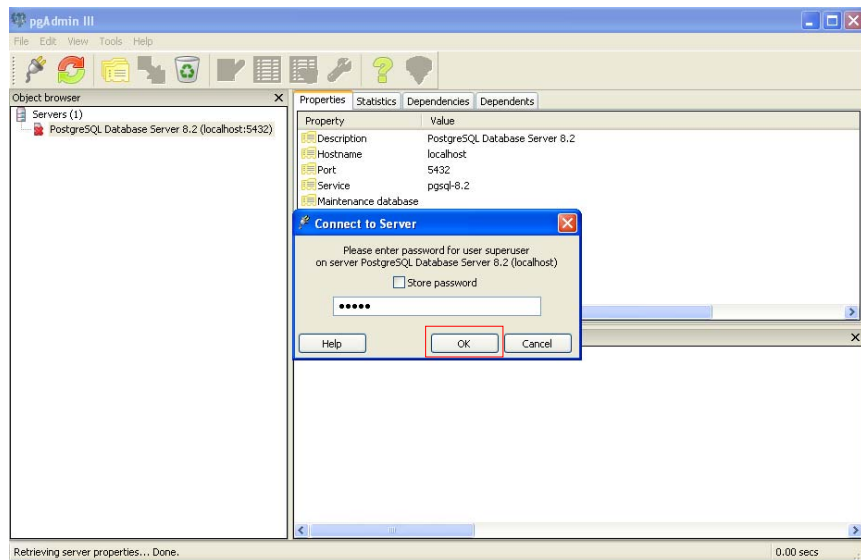


79

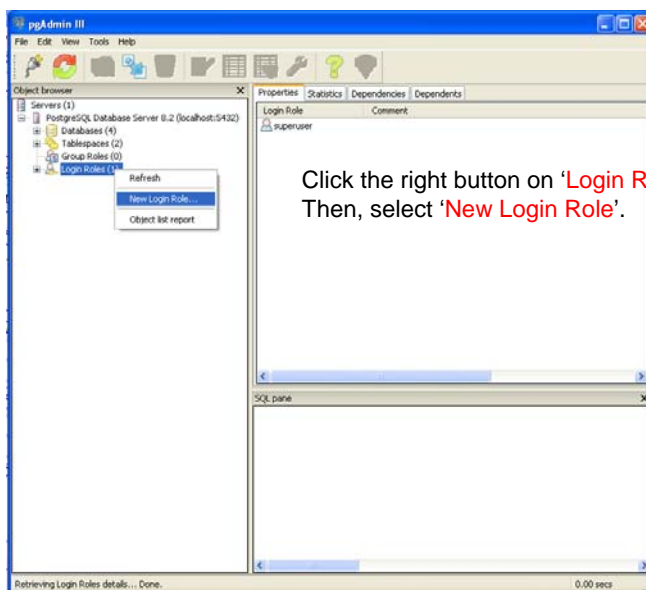


80

Type in the password of superuser 'postgres' that is 'iisee'.
Then, click on 'OK'.

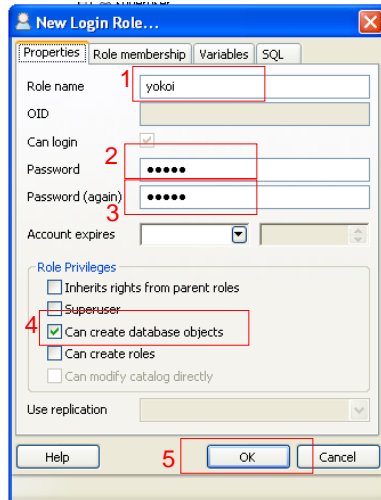


81



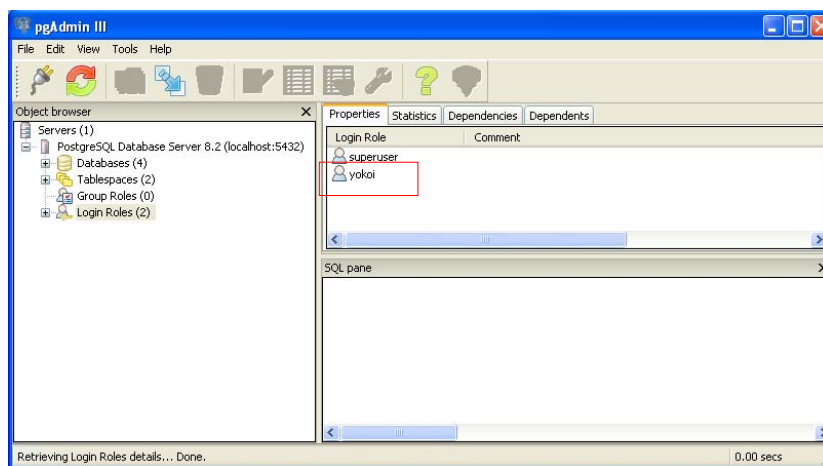
Click the right button on 'Login Role'.
Then, select 'New Login Role'.

82



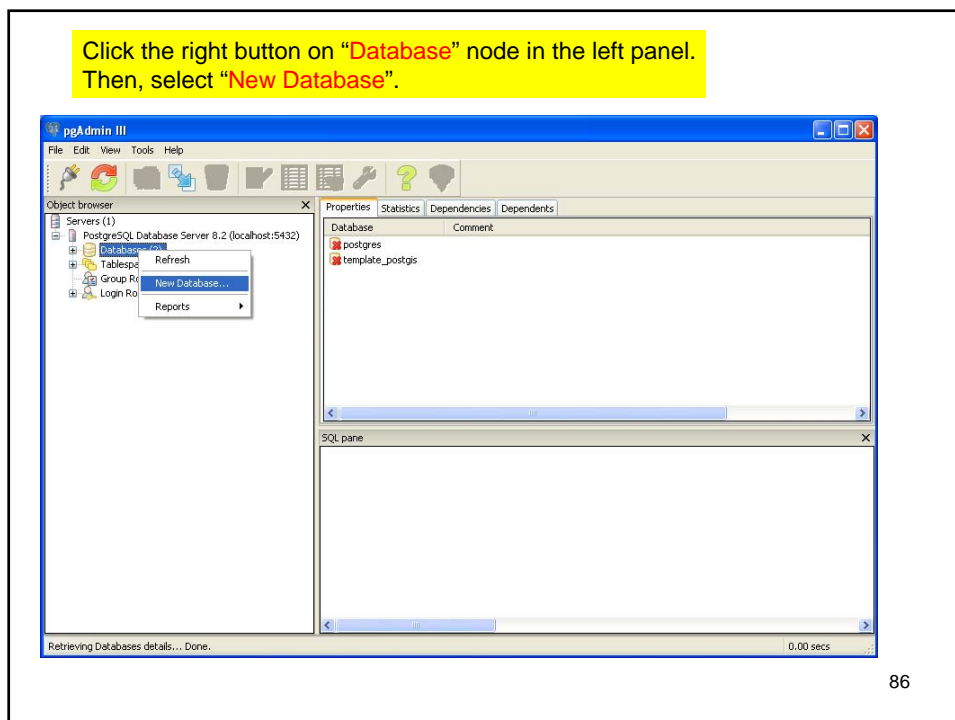
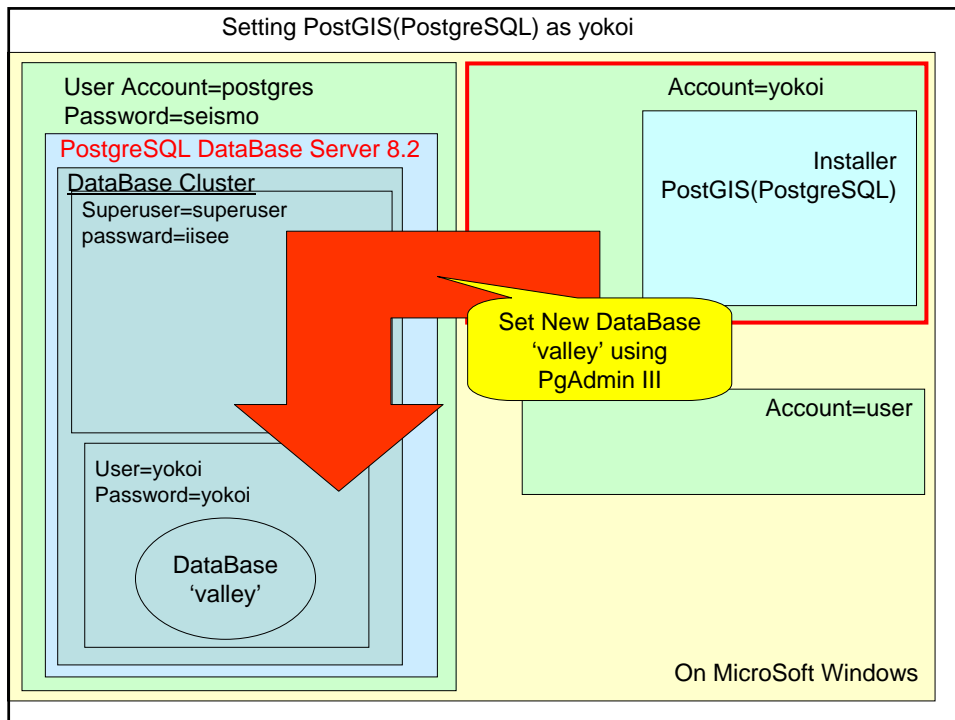
'New Login Role' dialog opens.
Type in Role name (user name) 'yokoi',
Password 'yokoi', Password(again) 'yokoi'.
Check 'Can create database objects'.
Then, click on 'OK'.

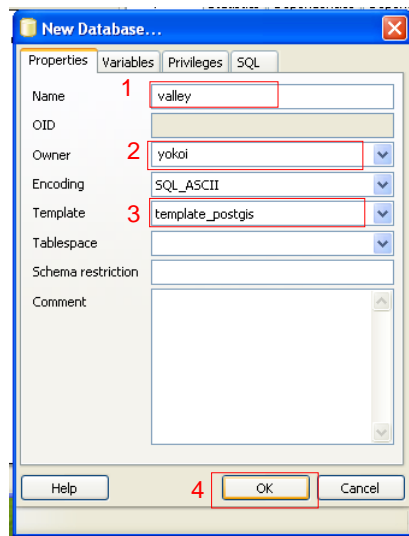
83



User 'yokoi' is created.

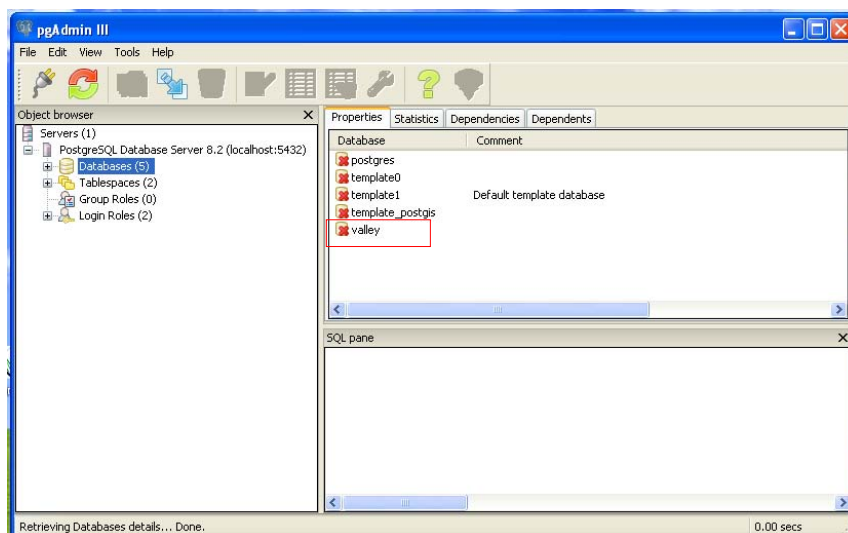
84





'New Database' dialog opens.
Type in Name '**valley**'.
Select Owner '**yokoi**'.
Select '**template_postgis**' to activate
PostGIS functionality.
Then, click on '**OK**'.

87



Database '**valley**' is created.

88

Click on the node of 'Databases', that of 'valley', that of 'Schemas', and 'Public'. Then, click on the button 'SQL'.

Retrieving Schema details... Done.

89

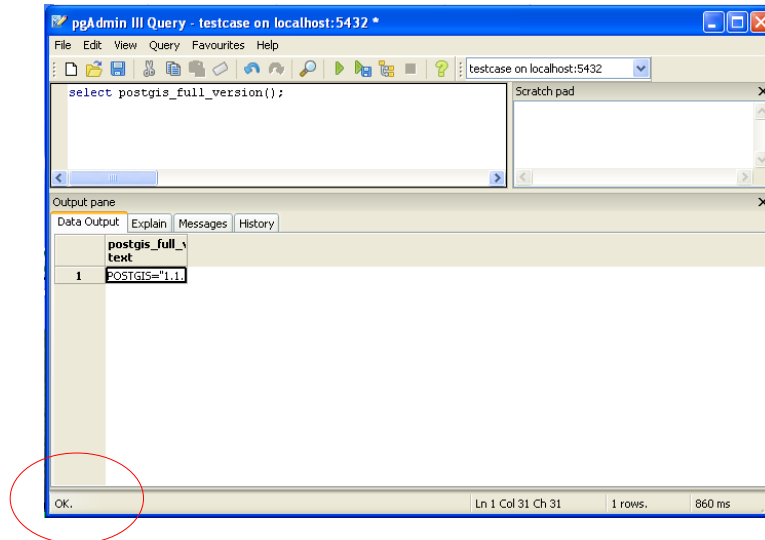
"pgAdmin III Query" dialog appears.

Type in "select postgis_full_version();" and push F5 key of keyboard.

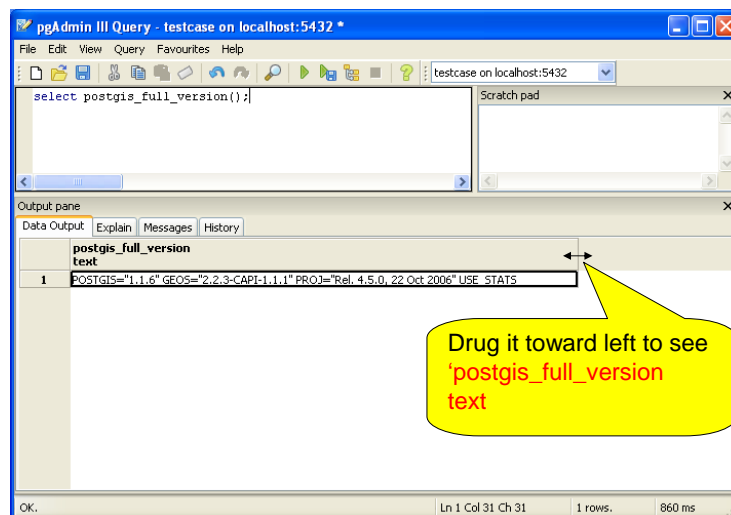
ready Ln 1 Col 31 Ch 31

90

Verify 'OK' at the left bottom.

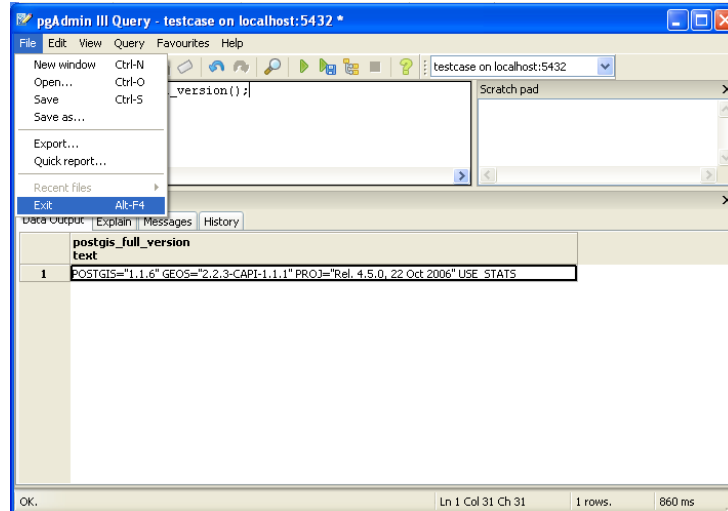


91



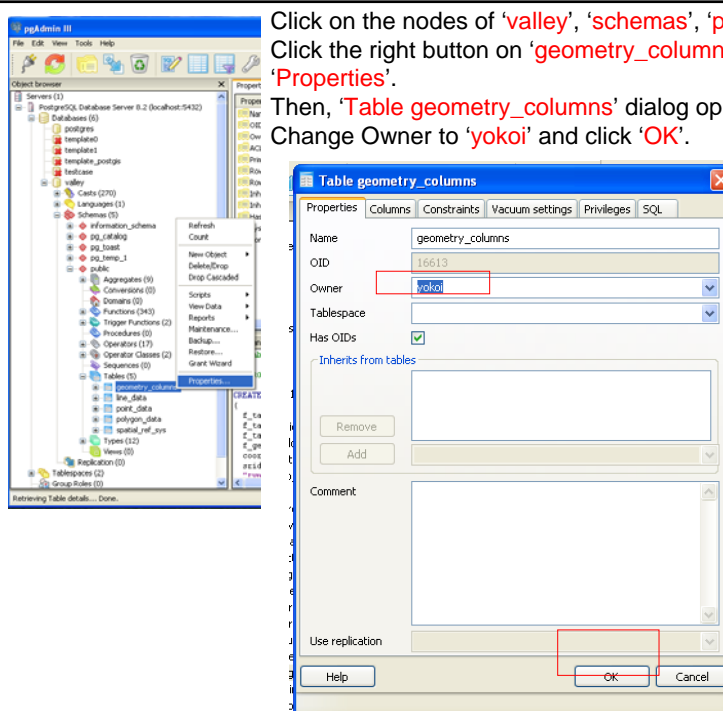
92

Close 'pgAdmin III Query' clicking on 'File' and 'Exit'.
It is not necessary to save the change.



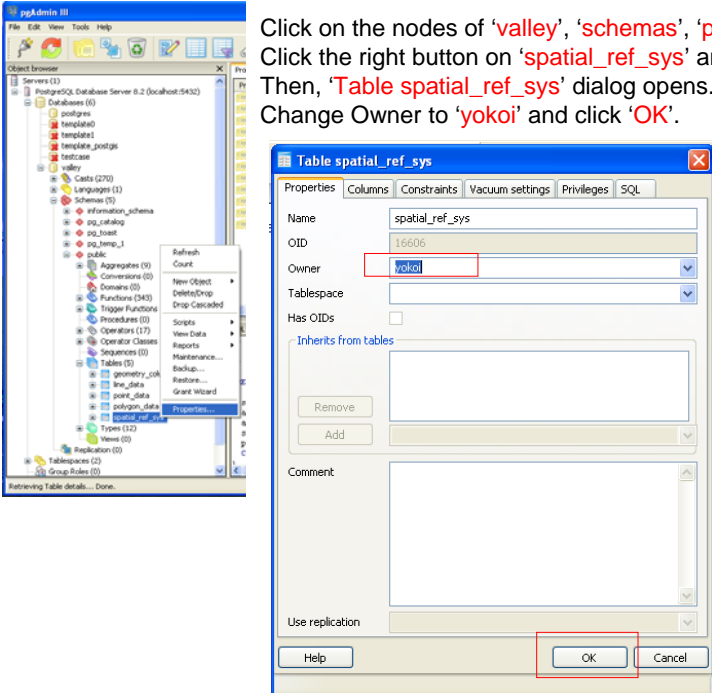
93

Click on the nodes of 'valley', 'schemas', 'public' and 'table'.
Click the right button on 'geometry_columns' and select 'Properties'.
Then, 'Table geometry_columns' dialog opens.
Change Owner to 'yokoi' and click 'OK'.



94

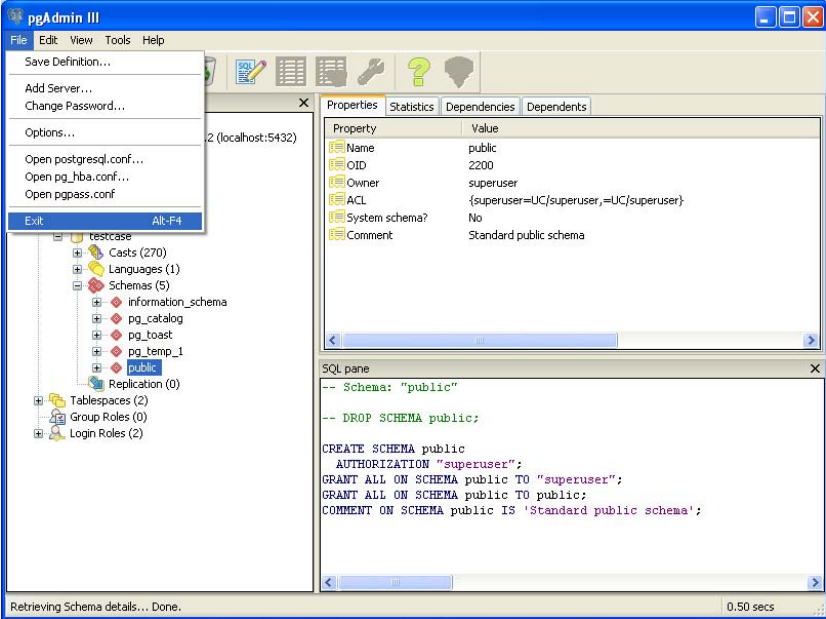
Click on the nodes of 'valley', 'schemas', 'public' and 'table'. Click the right button on 'spatial_ref_sys' and select 'Properties'. Then, 'Table spatial_ref_sys' dialog opens. Change Owner to 'yokoi' and click 'OK'.



The screenshot shows the pgAdmin III interface. On the left, the 'Object browser' tree is expanded to 'Tables (3)', and 'spatial_ref_sys' is selected. A context menu is open, and 'Properties...' is chosen. The 'Table spatial_ref_sys' dialog box is open, showing the 'Properties' tab. The 'Owner' field is set to 'yokoi'. The 'OK' button is highlighted with a red box.

95

Close 'pgAdmin III' clicking on 'File' and 'Exit'.



The screenshot shows the pgAdmin III interface. The 'File' menu is open, and 'Exit' is selected. The 'SQL pane' shows the schema definition for 'public'.

```
-- Schema: "public"
-- DROP SCHEMA public;

CREATE SCHEMA public
AUTHORIZATION "superuser";
GRANT ALL ON SCHEMA public TO "superuser";
GRANT ALL ON SCHEMA public TO public;
COMMENT ON SCHEMA public IS 'Standard public schema';
```

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