

Exercise 2: Installing QGIS

Table of Contents

1. Intro-fossgis-umass	1
1.1. Author Attribution	1
1.2. Module Licensing Information	1
1.3. Reviewed by	1
2. Installing QGIS	2
2.1. Installing QGIS and GRASS GIS Software	2
Windows	2
Linux	2
Apple/Mac	5
2.2. Getting GRASSGIS	5
Installing GrassGIS	5
Installing GrassGIS on Ubuntu Linux	6
Installing GrassGIS on Mac OS X system	6

1. Intro-fossgis-umass

1.1. Author Attribution

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1.2. Module Licensing Information

Version 1.0.



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1.3. Reviewed by

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2. Installing QGIS

2.1. Installing QGIS and GRASS GIS Software

Here we discuss installation of QuantumGIS, and GrassGIS for the course.

The newest version of QGIS is version 0.8. This version also contains the GRASS plugin, which we will be making use of in later modules. You can find a list of available versions for different operating systems at the following link:

<http://download.qgis.org/qgis/>

If you don't see your operating system listed, it probably means that the QGIS developers haven't finished porting it yet. However, we have written some suggestions and help for operating systems with which we are familiar.

Windows

- Go to: <http://download.qgis.org/qgis/>
- Scroll down to the table with different platforms and get to the "Windows" version: download the most current version: qgis-0.8.0_setup.exe
- Double click on the downloaded file to install
- The first time you run QGIS activate the GRASS plugin. You can do this through the plugins menu at the top of the screen.

IMPORTANT: the modules in GRASS plugin work only on GRASS data format only. To use the analytical functions of the GRASS toolbox, you need to have opened a mapset where you have writing permissions.

qGIS 0.7.4

QGIS is a rapidly developing application. Some of our modules were created with use of QGIS version 0.7.4. You can install the older version of QGIS and use it for some (not all) exercises in parallel with the current version 0.8.x. To install qGIS 0.7.4:

- Download the installation file from here [<http://linuxlab.sbs.umass.edu/introFossgisUmass/datasets/qgis/qgis074.exe>] (27Mb).
- Double click on the application to start an installation wizard. (the default installation folder is c:\program files\quantum gis74\).

Linux

The version of QGIS listed above [<http://download.qgis.org/qgis>] is extremely new, and as such, some linux distributions that use package managers (i.e. RPM on Redhat, Yast on SuSE, apt on ubuntu and debian) have not yet included it in their repositories. If they do contain a version of QGIS, it's probably the more distant version of 0.7.4, and on this version the GRASS plugin does NOT function. Thus, we would recommend that you download the version from the link we have provided, rather than attempting to get it through a package manager.

If you cannot find a version of QGIS 0.8 that is specific to your operating system, you will have to compile it from the source code, which is also available at this link [<http://download.qgis.org/qgis>]. We can provide some rudimentary instructions on compiling from source, but because of the differences in every linux distribution and in individual configurations, this may be a difficult process.

- First, make sure that you have the newest version of Qt (4.2.2). If you don't, you can get it in two ways. First, if it is available as a package on you distribution, you can install it that way.

If not, you can download the source code. To get the newest version by going here [<http://www.trolltech.com/developer/downloads/qt/x11>] and downloading it. Once you've downloaded it, you need to install it. Open up a terminal, navigate to the downloaded file, then:

- copy the file to your home directory

```
cp qt-x11-opensource-src-4.2.2.tar.gz /home/(yourusername)
```

- go to the home directory and extract it

```
tar xvf qt-x11-opensource-src-4.2.2.tar.gz
```

- go into the newly created directory (qt-x11-opensource) and configure the program (this will probably take a while)

```
./configure
```

- make the compilation files (this will also take quite a long time)

```
make
```

- compile QT (you should be in superuser mode for this part--the command below should work on most

distributions)

```
sudo make install
```

- Download the source code for QGIS 0.8 here [<http://download.qgis.org/qgis/src/qgis-0.8.0.tar.gz>].
- Open up a terminal window and copy the file to your /home/(yourusername) directory
- Navigate in the terminal to wherever you downloaded the file and type:

```
cp qgis-0.8.0.tar.gz
```

- Navigate to the home directory
- Unpack the file by typing the following:

```
tar xvf qgis-0.8.0.tar.gz  
</?RE>
```

- When you get back to the command prompt you need to enter the directory that was just unpacked, so type:

```
cd qgis-0.8.0
```

- From there, you can install the program by typing:

```
./configure
```

- When I typed this step, I recieved an error message telling me that it Qt4.2 was not installed. This was of course

after I had spent quite a long time compiling qt4.2, so I was confused. However, upon reading the documentation, I realized that I had to specify on the command line where qt4.2 was located. Thus, I ended up using this command instead:

```
./configure --with-qt-dir=/usr/local/Trolltech/Qt-4.2.2
```

- When that has finished, type the following

```
make
```

- Then, as root/superuser, type:

```
make install
```

Apple/Mac

- Go to the main download page at QGIS here [<http://download.qgis.org/qgis/>], where you can find a dmg file that can be utilized on OSX.

2.2. Getting GRASSGIS

Grass was a separate program from QGIS for a long time (it still is). We will only be using the plugin for this course, but the following sections provide some information on acquiring it as a separate package.

Installing GrassGIS

GrassGIS is available as a binary package for the majority of UNIX/Linux systems, for Windows OS and for MacOS. For some systems, you will need to install the GrassGIS using source code. The part () illustrates how to install GrassGIS v.6 on UBUNTU Linux.

1. Installing GrassGIS on Unix/Linux Systems
2. Installing GrassGIS on Windows systems
3. Installing GrassGIS on Mac OS X systems

Installing GrassGIS on Ubuntu Linux

Ubuntu and Debian Linux share some of binary distribution packages. Please check UbuntuGIS:<https://wiki.ubuntu.com//UbuntuGIS>

Installing GrassGIS on Mac OS X system

Site <http://wwwamb.bologna.enea.it/forgrass/> hosts GrassGIS distributions for Mac OS X operating system. Check "download" page for the binary installation package, documentation and extra packages. The 'current' version of GrassGIS is 6.0.0.1.

1. Grass GIS binary package (~56Mb) and Tiger OS X patch (~8.2)
2. Documentation (in pdf format)
 - a. Install Grass6
 - b. Know Grass6
 - c. Know Grass Libraries
 - d. Visual tutorial for Grass6