



## I. Introduction, installation, brief tutorial on how to use

### 1.1 Introduction to QGIS:

Quantum GIS (QGIS for short) is an open source Geographic Information System is available via Internet.

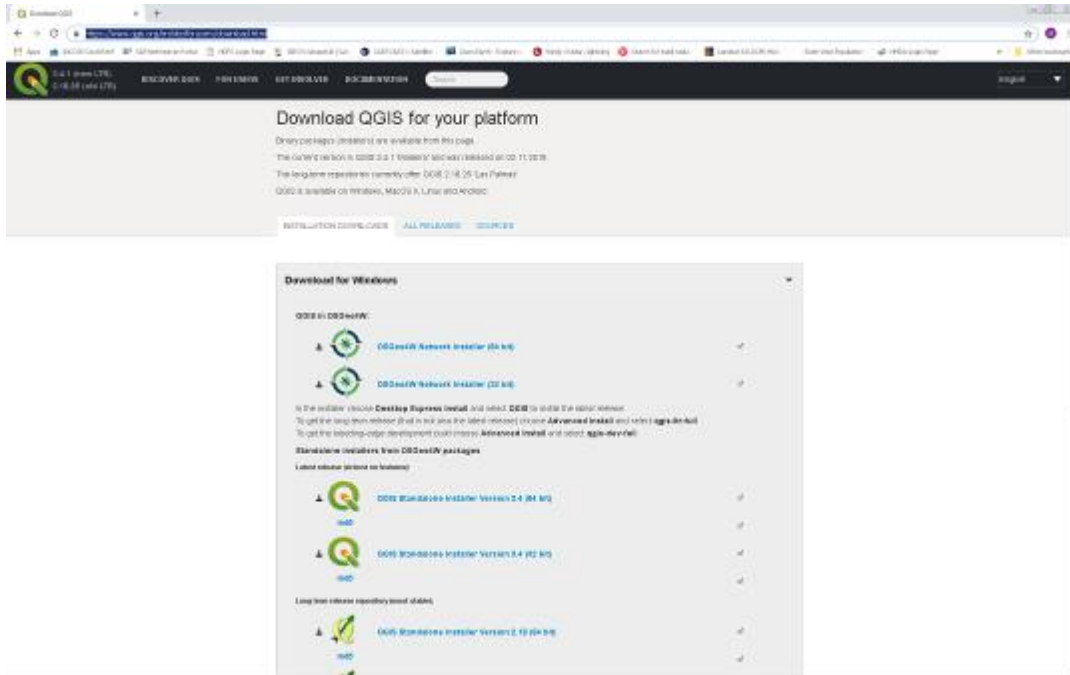
The initial objective of the project was to provide a GIS data viewer. QGIS has reached a point in its evolution where it is being used by many, both individuals and corporations to meet their daily needs for viewing, analysis and management of GIS data. QGIS provides a growing range of skills through basic and complementary roles. You can view, manage, edit, analyze data and design maps which can be printed in different formats.

### 1.2 System/Hardware Requirements (IT)

Element	Minimum	Recommended
Processor - CPU	Core i3 2.7Ghz	Core i7 3.5Ghz
Memory RAM	2Gb	8Gb or more
Hard Disk	500 Gb SATA	SSD de 128Gb or 500Gb SATA
Graphic card	1Gb RAM	2Gb RAM (NVIDIA Geforce)
Operating System	Windows 7-10 Mac Linux (Various) Android	Windows 7-10 Mac Linux (Various) Android

### 1.3 Installation of QGIS

**Step1.** To install the software QGIS must choose the web browser of your choice on your computer (for demonstration we are using Google Chrome) and select the installer, note that this software is free and open source. The web address where the installer is as follows: [www.qgis.org](http://www.qgis.org) , after selecting the executable file downloaded the application, the updated development to date version of this document is 3.4.1



**Step 2.** After the download proceed with terminal select the installer (.exe) and follow step by step installation the instructions below. Double click on " QGIS-OSGeo4W-3.4.1-1-Setup-x86\_64.exe". This is the welcome interface software that appears when you start the installation, in this step click on "Next".



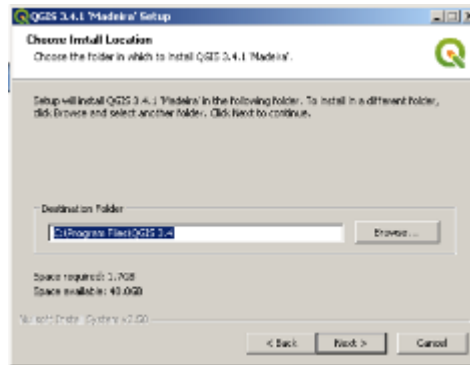
Welcome message window

**Step 3.** The following illustration shows the license information and the terms, if we agree click "I Agree".



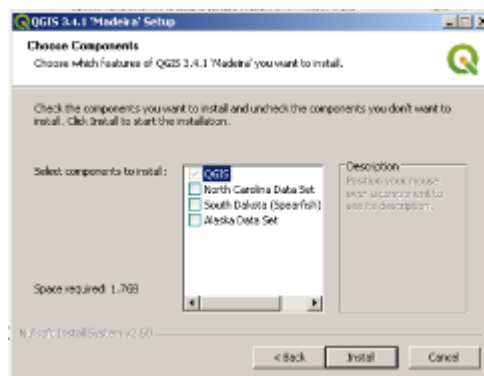
Licence information window

**Step 4.** The following illustration shows the recommended destination which can be changed to our preference , we just press the Browse button and select where we would like to install and then we press the button "Next".

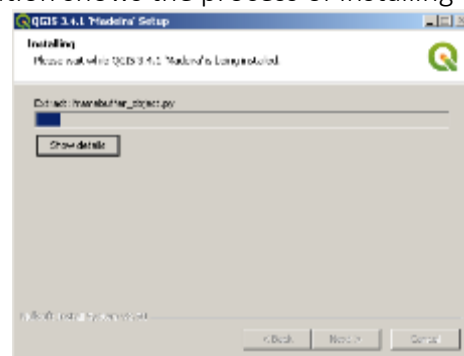


**Note:** we must note that the program requires a minimum of 1.5 GB of hard disk space to be installed , otherwise it cannot be made the installation disk.

**Step 5.** The following illustration shows and asked to select the components, usually just leave it and press the button "Install".



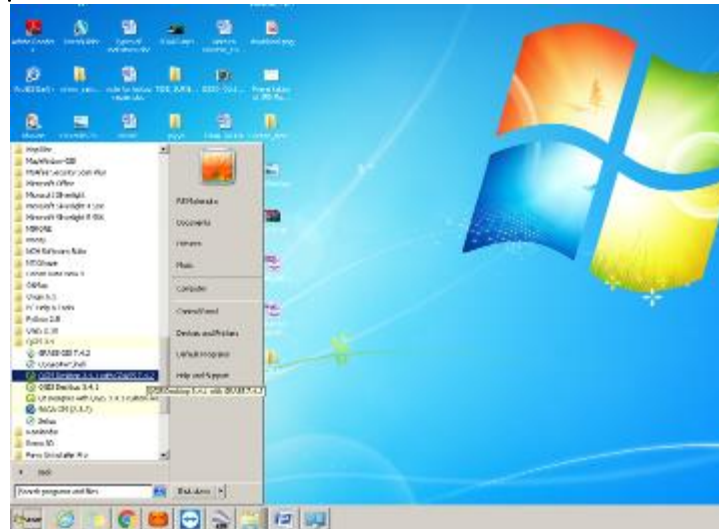
**Step 6.** The following illustration shows the process of installing the software, just wait.



**Step 7.** After the installation process finished we click the button "Finish" and we will have the software installed on your computer and can proceed to work on.



Step 8. Go to start tool of your bottom left windows tool select QGIS 3.4 installed folder and select QGIS Desktop 3.4.1 with GRASS7.4.2 as shown below.



Step 8. QGIS 3.4.1 desktop application opens as shown below

