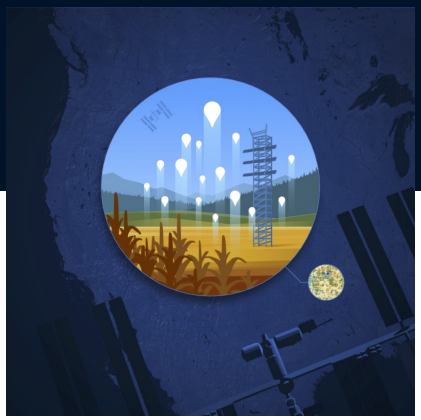


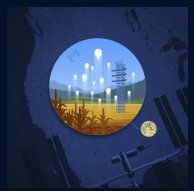
1

Installing QGIS

Quick Links To Sections

Objectives:

1. Recognize geospatial data as information connected to a location.
2. Install a geographic information system software called QGIS.
3. Consider the elements of effective maps.



1.1 WHAT IS QGIS? WHY DO I NEED IT?

Geospatial data are any data that are connected to a specific location. Geospatial data can refer to objects, events, and other real-world phenomena that are related to a geographic area identified by latitude and longitude. We use data like this everyday when we navigate to museums, restaurants, or a friend's house using maps on our cellphones. In this course, we are going to analyze geospatial data from satellite remote sensing instruments and create maps that visualize environmental events (e.g., natural disasters or weather events).

When we work with geospatial data, we refer to the system that organizes, analyzes, and visualizes those data as a geographic information system (GIS). QGIS is a GIS software program that supports viewing, editing, printing, and analyzing geospatial data. If you have ever worked with GIS software before, you might have used a software program called ArcGIS. QGIS is a free and open source alternative to ArcGIS that is widely used in government, industry, and academic settings. Increasingly, researchers are also turning to programming languages (e.g., R and Python) and writing code to process and analyze geospatial data; however, the advantage of QGIS and ArcGIS is that they are menu-driven software programs.

In each class, you will use QGIS to complete new tutorials and occasionally submit "Make a Map" assignments that will give you practice working with geospatial data and add new tools to your skill set.

1.2 INSTALLING QGIS

NOTE: QGIS requires 2 GB of storage on average and can take as much as 3 GB for a full install.

To check your storage on Windows go to Start → Settings → System → Storage.

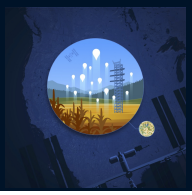
On Mac, choose the Apple menu → System Settings → General → Storage

1. Head over to https://qgis.org/en/site/forusers/download.html and download the stable version of QGIS for your operating system (e.g., Mac, Windows, or Linux). If you already have another version of QGIS installed, we recommend that you update to the latest stable version so that your screen matches the tutorials.

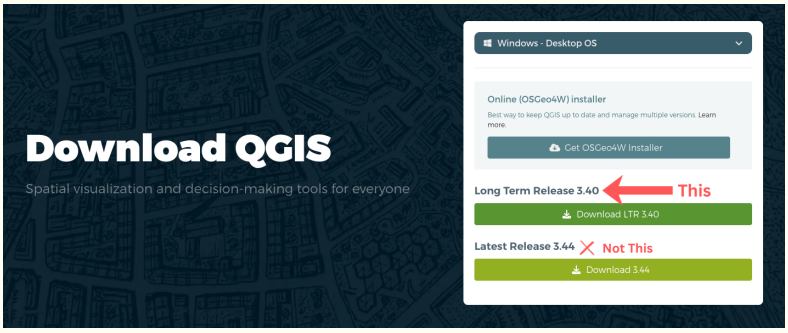
NOTE: QGIS offers a "latest release" of its software which is cutting edge and unstable. We suggest downloading the Long Term Release (LTR), which is stable and easier to use. See images below for each operating system:

Linux

1. Use your package manager to install the stable version from your distribution's repository or follow these instructions to install a more up-to-date version : https://www.qgis.org/en/site/forusers/alldownloads.html#linux
2. Open QGIS by selecting it in your applications launcher.

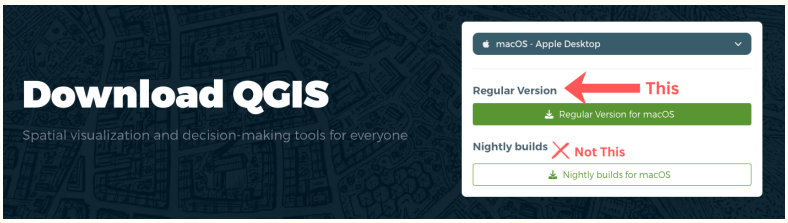


Windows



1. Check for the QGIS executable file (.msi) in whichever folder you downloaded it to and open it. Follow the prompts to install the software.
2. Open QGIS Desktop from the start menu or desktop icon.

Apple macOS



1. Check for the QGIS executable file (.dmg) in whichever folder you downloaded it to and open it. Follow the prompts to accept the terms and conditions. To install the software, hold and drag the file into your Applications.
2. Open QGIS by selecting it in Launchpad or use Go → Applications and double click on QGIS.

NOTE: For MAC users, it may warn you that QGIS is not from a verifiable source. To override this problem, you can right click the app, choose “Open” from the menu, and then click “Open” in the dialog that appears. The same can be done from the toolbar.

Congratulations! You have now successfully installed QGIS. Now attempt to open it. In our next tutorial, we will get you up and running to make your first map.

Recommended Citation: Forsythe, J.D., G.R. Goldsmith, and J.B. Fisher. 2023. Observing Earth from Above Tutorials. Chapman University. https://jeremydforsythe.github.io/icecream-tutorials/

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