edX

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Set up: Setting up your System for this Course
Please be sure to setup your system before moving onto Week 2 or Week 3.

Directions adapted from software tools for Software Carpentry workshops, please see license details below.

Setup

To participate in this course, you will need access to the software described below. In addition, you will need an up-to-date web browser.

We maintain a list of common issues that occur during installation as a reference for instructors that may be useful on the Configuration Problems and Solutions wiki page.
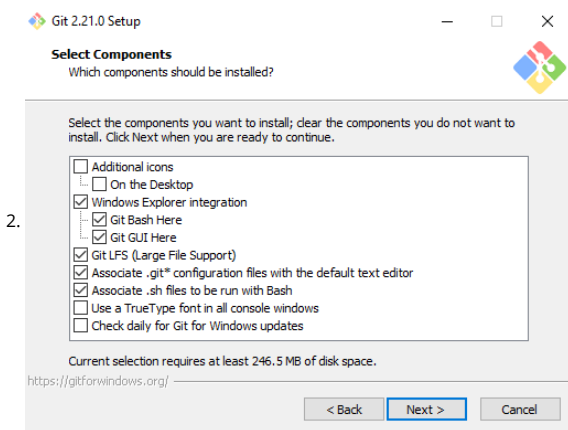
The Bash Shell

Bash is a commonly-used shell that gives you the power to do simple tasks more quickly.
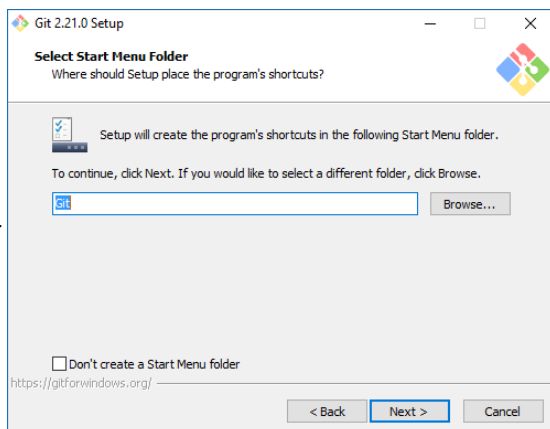
Windows

Video Tutorial

1. Download the Git for Windows installer.

2. Run the installer and follow the steps bellow:
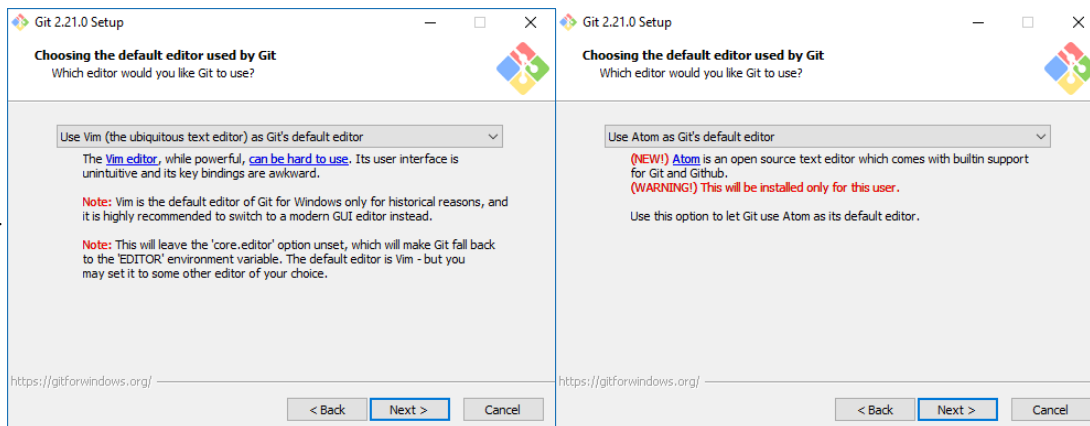
    1. Click on "Next".

    2.

    3. Click on "Next". **Unless you would like to change the install destination, then click "Browse".**

4.

5. Select your desired editor. Note: This is entirely up to you, pictured on the right is the choice of Atom, a free editor with built-in support for Git and Github. After you have chosen, click "Next".
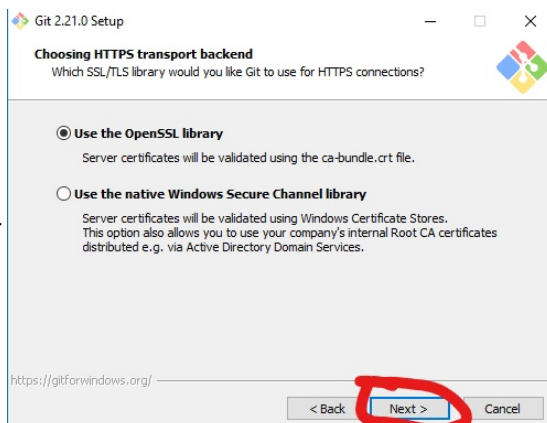
6.

7. **Keep "Use Git and optional Unix tools from the Windows Command Prompt" selected and click on "Next".** If you forgot to do this, programs that you need for the workshop will not work properly. If this happens, rerun the installer and select the appropriate option.
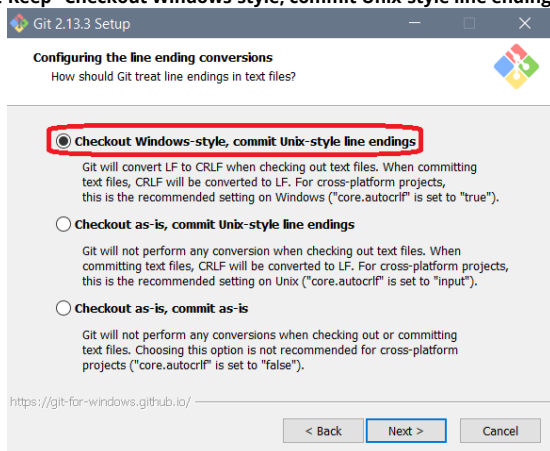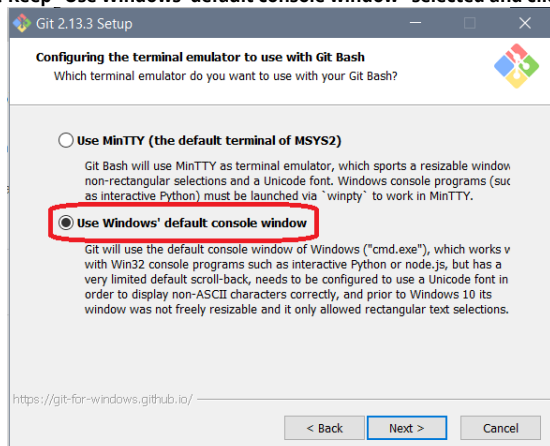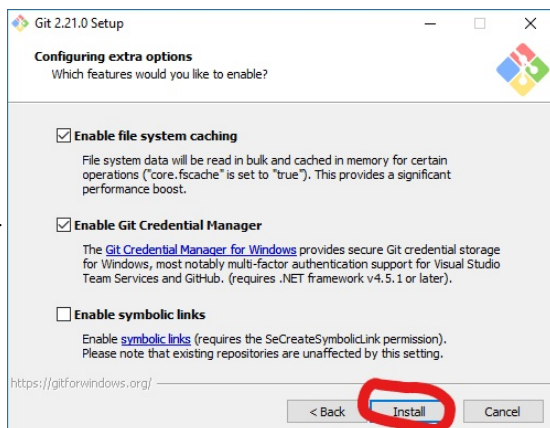
8.
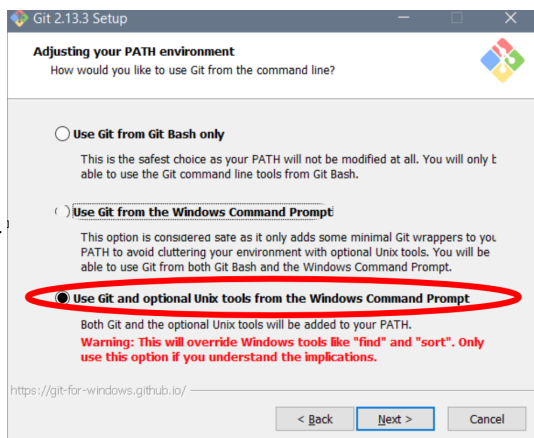
9.

10. **Keep "Checkout Windows-style, commit Unix-style line endings" selected and click on "Next".**

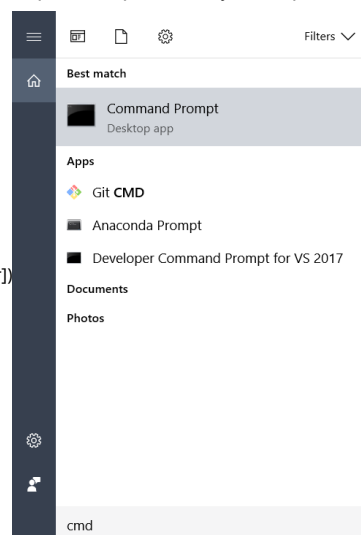11. **Keep "Use Windows' default console window" selected and click on "Next".**
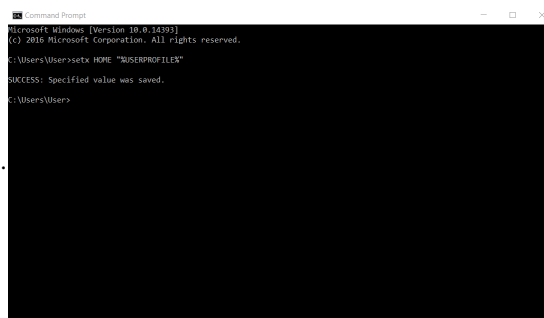

12.

13. Click on "Finish".

3. If your "HOME" environment variable is not set (or if you don't know what this is):

1. Open command prompt (Open Start Menu, then type `cmd` and press [Enter])

2. Type the following line into the command prompt window exactly as shown: `setx HOME "%USERPROFILE%"`

3. Press [Enter], you should see `SUCCESS: Specified value was saved.`

4. Quit command prompt by typing `exit` then pressing [Enter]

This will provide you with both Git and Bash in the Git Bash program.

Mac OS X

The default shell in all versions of Mac OS X is Bash, so no need to install anything. You access Bash from the Terminal (found in `/Applications/Utilities`). See the Git installation video tutorial for an example on how to open the Terminal. You may want to keep Terminal in your dock for this workshop.
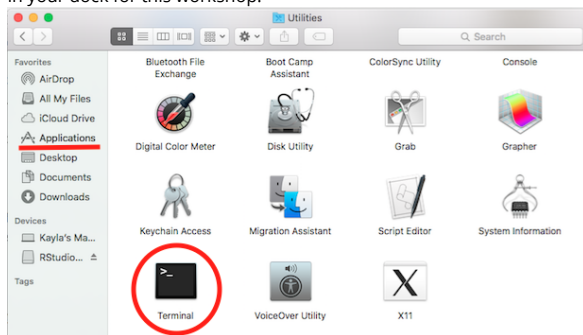
Linux

The default shell is usually Bash, but if your machine is set up differently you can run it by opening a terminal and typing `bash`. There is no need to install anything.

Python

Python is a popular language for research computing, and great for general-purpose programming as well. Installing all of its research packages individually can be a bit difficult, so we recommend Anaconda, an all-in-one installer.
Regardless of how you choose to install it, **please make sure you install Python version 3.x** (e.g., 3.4 is fine).

We will teach Python using the Jupyter notebook, a programming environment that runs in a web browser. For this to work you will need a reasonably up-to-date browser. The current versions of the Chrome, Safari and Firefox browsers are all supported (some older browsers, including Internet Explorer version 9 and below, are not).

**Windows**

Video Tutorial

1. Open http://continuum.io/downloads with your web browser.
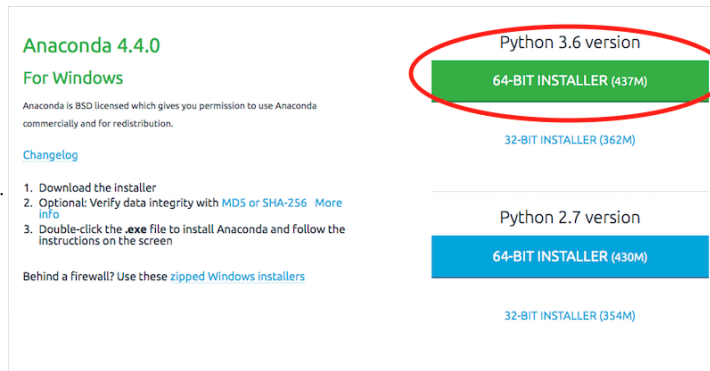
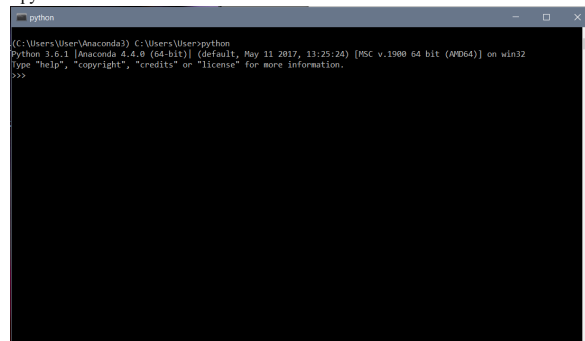2. Download the Python 3 installer for Windows.

3. Install Python 3 using all of the defaults for installation, *except* make sure to check **Make Anaconda the default Python ("Register Anaconda as my default Python 3.x")**.

To run Python (later in the course), you need to open an "Anaconda Prompt" (from Start Menu)
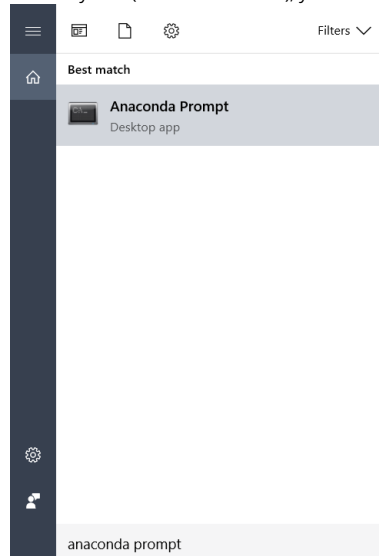
and type
>python

To run Jupyter (later in the course), you need to open an "Anaconda Prompt" (from Start Menu) and type
>jupyter notebook

macOS

Video Tutorial

1. Open http://continuum.io/downloads with your web browser.

2. Download the Python 3 installer for OS X.

3.

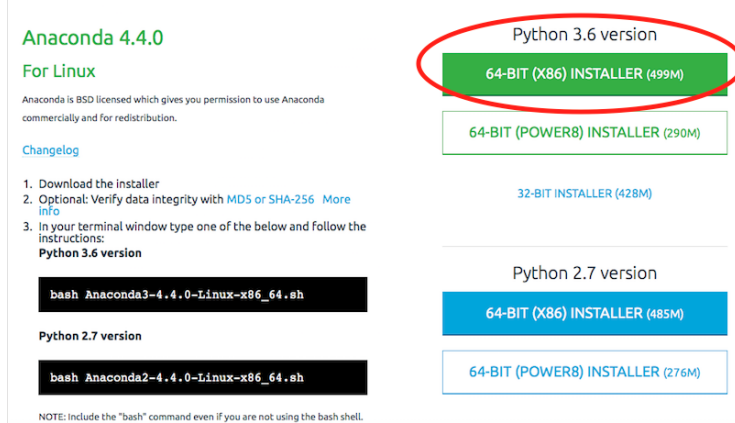4. Install Python 3 using all of the defaults for installation.

Linux

1. Open http://continuum.io/downloads with your web browser.

2. Download the Python 3 installer for Linux.
   (Installation requires using the shell. If you aren't comfortable doing the installation yourself, stop here and request help in the discussions.)

3. Open a terminal window.

4. Type

```
bash Anaconda3-
```

and then press tab. The name of the file you just downloaded should appear. If it does not, navigate to the folder where you downloaded the file, for example with:

```
cd Downloads
```

Then, try again.

5. Press [Enter]. You will follow the text-only prompts. To move through the text, press the [space] key. Type yes and press [Enter] to approve the license. Press [Enter] to approve the default location for the files. Type yes and press [Enter] to prepend Anaconda to your PATH (this makes the Anaconda distribution the default Python).

6. Close the terminal window.

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