# Computer Science Principles Software List and Installation Guide 2018-2019

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Preparing your system and installation (+/- 1 hour)

*It is imperative that you consult your IT team prior to installing any software or attempting to amend any settings on your computer. Administrative rights are based on a profile created by your System Administrator; therefore a plethora of variances are possible and these ‘rights’ may not necessarily allow you to install software properly.

1. Disable the UACs (set to ‘Never notify’)
2. Disable the anti-virus software
3. Disable pop-up blocker in the browser you are utilizing
   (These settings may be re-enabled once the software is installed and operational.)
4. Ensure you have permissions to install USB drivers for any Android, Robotics or other devices which will connect to the computer via USB.
5. Students must have read & write access to C drive, or the location where Canopy Environment is setup.

Firewall: The following ports and URLs need to be accessible:

- Port 22 to picocft.com
- Internal ports 8001, 8004, and 9987 for wireless communication between computers and tablets.
- rendezvous.appinventor.mit.edu
- ai2.appinventor.mit.edu

Software for Student / Teacher Machines
Visit the links to begin the download. Follow the instructions at each website.

- Flash: http://get2.adobe.com/flashplayer/
Scratch 2 Offline Editor

Procedure

1. Go to https://scratch.mit.edu/scratch2download/
2. Select Download under Adobe AIR

Scratch 2 Offline Editor

You can install the Scratch 2.0 editor to work on projects without an internet connection. This version will work on Mac, Windows, and some versions of Linux (32 bit).

3. Select Download
4. Select **Next**

5. Select the **AdobeAIRInstaller.exe** file

6. Select **Update**
7. Select Finish

8. Go back to https://scratch.mit.edu/scratch2download/

9. Select Download under Scratch Offline Editor download

**Scratch 2 Offline Editor**

You can install the Scratch 2.0 editor to work on projects without an internet connection. This version will work on Mac, Windows, and some versions of Linux (32 bit).

10. Select the Scratch-441.2.exe file.
11. Select **Continue**

12. Select **Yes** if prompt for UAC

**Canopy**
This information was obtained from the Enthought. For more information, see the article here: [https://support.enthought.com/hc/en-us/articles/115001546903-Installing-Canopy-2-onWindows-for-classroom-lab-use](https://support.enthought.com/hc/en-us/articles/115001546903-Installing-Canopy-2-onWindows-for-classroom-lab-use)

**Procedure**

1. Go to [https://store.enthought.com/downloads/](https://store.enthought.com/downloads/)

2. Scroll down to the **Standard Installers** section, and select download for your Operating System with **Python 2.7**.
**For single-user Teacher computer,** run the installer, accepting default selections.  
**For multi-user classroom installation,** follow Enthought Guidelines below.  
**For Mac multi-user:** Follow Mac installation guide for all users.  

3. Create the Canopy target directory (by default, “C:\Program Files\Enthought”) with appropriate permissions.

4. Place the `canopy-2.1.8.win-x86_64-cp27.msi` file into the `C:\Program Files\Enthought` folder.
5. Open an elevated Administrator command prompt.
   a. Click on the Windows icon in the task bar and type cmd. Right-click on the Command Prompt and select ‘Run as Administrator’

6. Change the directory to C:\Program Files\Enthought. This should be where canopy-2.1.8.win-x86_64-cp27.msi is located:  

```
C:\Program Files\Enthought\canopy-2.1.8.win-x86_64-cp27.msi
```

7. Install Canopy and set up the managed common install, with the following long one-line command, adjusting file names and paths as appropriate:

```
msiexec /qr /lv*v canopy-msi.log /i canopy-2.1.8.win-x86_64-cp27.msi ALLUSERS=1
SETUP_MANAGED_COMMON_INSTALL="C:\Program Files\Enthought"
```

b. If you receive an error, make sure to be in the same directory as the `canopy-2.1.8.win-x86_64-cp27.msi` file.

8. Wait for Canopy to install.

9. Open Canopy from the desktop icon or from this location:

```
C:\Program Files\Enthought\Canopy\App\Canopy.exe
```
Firefox

Procedure

2. Select Free Download

3. Select Firefox Setup install file

4. Select Run

5. Select Yes if prompted for UAC
6. Select if you want Firefox to be the default browser and select Install

![Firefox Setup](image)

7. Firefox will install and launch.

**App Inventor aiStarter (Windows install)** aiStarter provides support for the emulator option for work with MIT App Inventor for Windows operating system.

**Procedure**
2. Click on Instructions for Windows
3. Download the installer by clicking the link.

4. Once the file has finished downloading, run as an administrator.

5. Select Run if prompted.
6. Click through the steps of the installer. Do not change the installation location but record the installation directory because you might need to check drivers later.

7. aiStarter has been successfully installed.

8. You can confirm installation by launching aiStarter. Once launched this window should appear.

In most cases, App Inventor should be able to locate the Setup software on its own. But if it asks for the location of the software, the path to enter is C:\Program Files\Appinventor\commands-for-Appinventor. If you are using a 64-bit machine you should type Program Files (x86) rather than Program Files.
App Inventor aiStarter (Mac install) aiStarter provides support for the emulator option for work with MIT App Inventor for Mac operating system.

**Procedure**

1. Visit the site to begin the download.  

2. Select the **Instructions for Mac OS X option**.

3. **Download the installer.**
4. Double-click the downloaded file to start the installer.

5. **Click** continue

![Installer Welcome Screen](image)

6. Accept the software license.

7. **Click** Install. Do not change the install location.

![Install Confirmation](image)

8. If asked, enter your password to confirm installation. **Click** OK.
9. The installer confirms App Inventor Setup package was installed.

![App Inventor Setup successful](image)

10. If you are updating a previous version of the setup software, log out and log back in before continuing to use App Inventor.

11. On a Mac, aiStarter will start automatically when you log into your account and it will run invisibly in the background.

**NetLogo Procedure**

1. Go to [http://ccl.northwestern.edu/netlogo/download.shtml](http://ccl.northwestern.edu/netlogo/download.shtml)
2. Select **Download**

![NetLogo Download](image)
3. Select **Download** for your system

4. Wait for download to complete

5. Select downloaded file

6. Select **Run**
7. Select **Next**

![NetLogo 5.3 Setup window](image)

Welcome to the NetLogo 5.3 Setup Wizard

The Setup Wizard will install NetLogo 5.3 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.

8. Select **Next**

![NetLogo 5.3 Setup window](image)

Destination Folder

Click Next to install to the default folder or click Change to choose another.

Install NetLogo 5.3 to:

```
C:\Program Files\NetLogo 5.3\n```

Change…

![Next button highlighted](image)
9. Select **Next**

10. Select **Install**

11. Select **Yes** if prompt for UAC

12. Wait for install to complete
13. Select Finish
GitHub Desktop Client

Procedure

1. Select the link to download GitHub:
   https://githubwindows.s3.amazonaws.com/GitHubSetup.exe

2. Launch the GitHubSetup install file

3. Select Run

4. Select Install

5. Wait for GitHub to install
MEGA Procedure

1. Go to http://www.megasoftware.net/
2. Select your Operating System and select Download

3. Select Instructor and University/College. Then select Download

4. Launch the downloaded MEGA7.0.14_setup.exe
5. Select Run

![Open File - Security Warning]

The publisher could not be verified. Are you sure you want to run this software?

Name: C:\Users\cnunez\Downloads\MEGA6.06_setup.exe
Publisher: Unknown Publisher
Type: Application
From: C:\Users\cnunez\Downloads\MEGA6.06_setup.exe

Run Cancel

Always ask before opening this file

This file does not have a valid digital signature that verifies its publisher. You should only run software from publishers you trust.

6. If prompt for User Access Control select Yes

7. Select Next

![Welcome to the MEGA7 Setup Wizard]

This will install MEGA7 version 7.0.14 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
8. Select Next

Select Destination Location
Where should MEGA7 be installed?

Setup will install MEGA7 into the following folder.

To continue, click Next. If you would like to select a different folder, click Browse.

C:\Program Files\MEGA7

At least 112.6 MB of free disk space is required.

< Back Next > Cancel

9. Select Next

Select Start Menu Folder
Where should Setup place the program's shortcuts?

Setup will create the program's shortcuts in the following Start Menu folder.

To continue, click Next. If you would like to select a different folder, click Browse.

MEGA7

Don't create a Start Menu folder

< Back Next > Cancel
10. Uncheck Help improve MEGA. Select Next

11. Select Next
12. Select **Install**

![Install Screen]

13. Select **Finish**

![Finish Screen]
Notepad++ (Windows Only)
Use Notepad++ if installing on Windows. Use TextWrangler if installing on Mac.

Procedure
2. Select **Download** from the left hand side of the page.
3. Select **Download** in the middle of the page.
4. Once the file has finished downloading run it.
5. Select your language and click **OK**.
6. Select Next.

7. Select I Agree.

8. Select Next.
9. Select **Next**.

10. Select **Install**

11. Let the Installer finish.
12. Select Finish.

TextWrangler (Mac Only)

Text Wrangler is used in placed of Notepad++ on Macs.

Procedure

1. Go the TextWrangler site.

2. Click the Download button.

3. The file will begin downloading.

4. Once it has finished downloading locate it in your downloads and open it.
5. Click the TextWrangler icon and slide it to the Applications Folder Icon.

6. Open the Application Folder and open TextWrangler to ensure installation.

7. You may receive the notification pictured below. Choose Open.

7-Zip 

Procedure


2. Use the appropriate download link based on your Operating System. (64 or 32 bit)
3. Run the file once the download is complete.

4. Select **Install**

5. Select **Close**

**XaoS**

**Procedure**

2. Select **XaoS for Windows**
We believe that the best way to learn about fractals is to explore them yourself! Please download the fractal software below and begin to explore the infinite realm of fractals.

**XaoS for Windows** | **XaoS for Mac OS X** | **Instructions for XaoS** | **XaoS Open Source Project**

This is the dazzling Real-Time Zoomer featured in our presentations. Explore the Mandelbrot set and 23 other fractals. Used by children everywhere, it's even simple enough for adults. **Free!**

3. **Open the installed file**

![XaoS-3.4-win32-Inst...exe](attachment:file)

4. **Select Yes if prompt for User Access Control**

5. **Select Next**

![Welcome to the XaoS Setup Wizard](attachment:file)

6. **Select I Agree**
7. Select **Next**

8. Select **Install**
9. Select **Finish**

**Software for Android devices:**

**MIT AI2 Companion: Google Play Store**

*(Android)*


**Procedure**

1. Go to the Google Play Store on your tablet.
2. Search for MIT App Inventor 2

3. Select the MIT AI2 Companion

4. Select Install
5. Select **Accept**

6. The app will install.

7. Once finished the app will appear on the tablet.
Wireless Network Configuration

A wireless connection between the Android device and the laptop or desktop is strongly recommended. See http://appinventor.mit.edu/explore/ai2/setup-device-wifi.html. Students access App Inventor through a web browser from a laptop or desktop computer. If both the computer and the Android device are on the wireless network, students can test their Android app as they create it. For this preferred method using "live programming by wireless connection," the Android device and the computer must be on the wireless network, in the same subnet, without restrictions imposed by the router on connections between network devices. Wireless access also must be without password authentication, though authentication can be implemented by whitelisting devices. If security is in place preventing this connection over existing school WiFi, a wireless router can provide a new access point limited to the classroom set of computers and devices.

Documentation and Support

Setting up App Inventor

Using MIT App Inventor in school networking environments How does my Android Device Connect over Wifi?

Troubleshooting for App Inventor 2