Setting Up Java and Eclipse for Mac OS X

If you have any issues after completing this setup, please visit our page Support: Troubleshooting Common Issues which provides solutions to many of the errors that our learners encounter.

In this course we (and you) will be using the Eclipse integrated development environment (IDE) to develop and run our Java code. Eclipse is a powerful, industry-grade IDE. While it might be a little confusing at first because of its power, once you get the hang of it, it will provide for a very pleasant programming experience and you'll wonder how you ever programmed without it!

Part 1: Install the Java JDK, if you don't have it already installed

Eclipse comes with its own compiler, which means many people are able to write programs using Eclipse without installing the Java Development Kit (JDK for short). But having a working JDK is a very useful thing, and is an easy way to prevent potential issues later on. Because of this, we recommend installing the JDK to your system. In this class we have tested our files with Java versions 7 and 8, so if you have anything older than that, you'll want to upgrade.

1. Go to http://www.oracle.com/technetwork/java/javase/downloads/index.html

2. Click on one of the buttons to download the latest version of the Java SE JDK. These buttons are highlighted in the screenshot below (click either one).

3. Accept the license agreement in the first list of files titled “Java SE Development Kit …” and then download the OS X x64 file. An image of the list of files you should choose from is below.

Java SE Development Kit 8u65

You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

○ Accept License Agreement ◉ Decline License Agreement

Product / File Description	File Size	Download
Linux ARM v6/v7 Hard Float ABI	77.69 MB	jdk-8u65-linux-arm32-vfp-hflt.tar.gz
Linux ARM v8 Hard Float ABI	74.66 MB	jdk-8u65-linux-arm64-vfp-hflt.tar.gz
Linux x86	154.67 MB	jdk-8u65-linux-i586.rpm
Linux x86	174.84 MB	jdk-8u65-linux-i586.tar.gz
Linux x64	152.69 MB	jdk-8u65-linux-x64.rpm
Linux x64	172.86 MB	jdk-8u65-linux-x64.tar.gz
Mac OS X x64	227.14 MB	jdk-8u65-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	139.71 MB	jdk-8u65-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	99.01 MB	jdk-8u65-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	140.22 MB	jdk-8u65-solaris-x64.tar.Z
Solaris x64	96.74 MB	jdk-8u65-solaris-x64.tar.gz
Windows x86	181.24 MB	jdk-8u65-windows-i586.exe
Windows x64	186.57 MB	jdk-8u65-windows-x64.exe

4. Now open the file that you have just downloaded. After you open it the image below should appear on your screen. Double click on the box icon.

5. Next the window below will pop up and by continuing through each stage in this window you will install Java onto your computer.

If you would like further installation instructions, you may visit here:
https://docs.oracle.com/javase/8/docs/technotes/guides/install/mac_jdk.html

That’s it. You’ve got the Java SDK on your machine (SDK stands for software development kit -- a more general term).

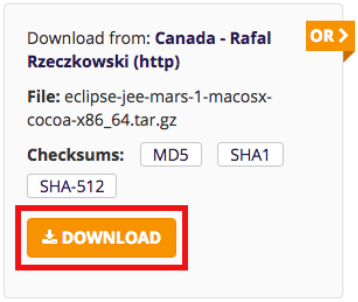
Part 2: Download, “install” and setup Eclipse

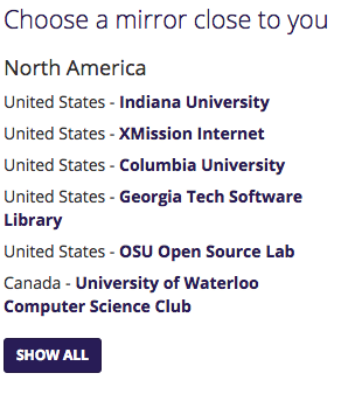
Next, you will install and setup eclipse. You might find the following guide helpful: https://wiki.eclipse.org/Eclipse/Installation#Download_Eclipse And/or you can follow our instructions here:

1. Go to https://www.eclipse.org/downloads/

2. Select your operating system from the dropdown menu in the upper right. Then, in the row titled Eclipse IDE for Java Developers, there will be a button that says either 32 bit or 64 bit depending on your system. Click this button (If you see both 32 bit and 64 bit displayed then the website was unable to detect the version of your operating system and you will have to select the correct one)

3. On the next page you can click the Download button to start your download. If you have concerns about download speeds, below the Download button are mirror servers available to you. Save the compressed (.tar.gz) file wherever you want on your computer.

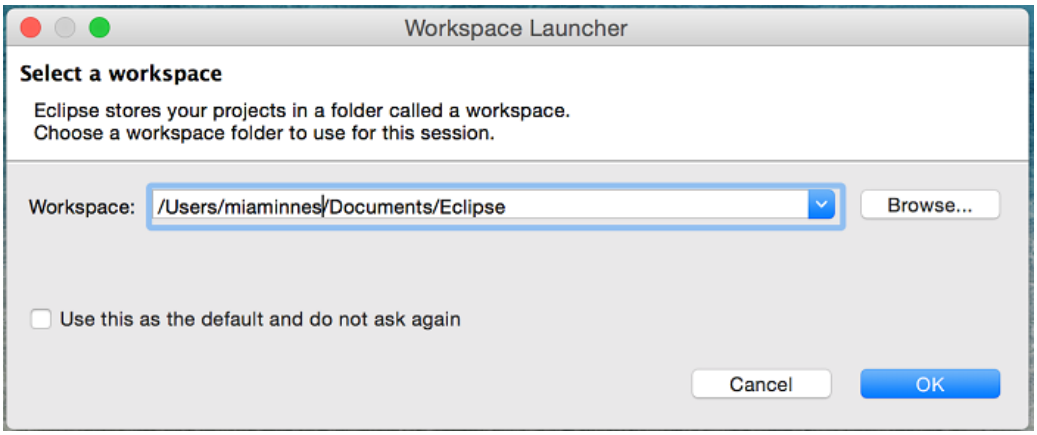




4. When you open the .tar.gz file, it will automatically “install” Eclipse.app to the same folder that the .tar.gz file is in. Eclipse.app is the entire Eclipse application. We recommend moving Eclipse.app to your applications folder.

5. Once Eclipse is unzipped, run it by either double-clicking on Eclipse.app.

6. Eclipse will ask you to select your workspace. This is where eclipse will store all of your code and project files. We recommend you choose a directory that gets backed up regularly (e.g. on Google Drive, for example). Optionally, you can make this the default workspace (so Eclipse will not ask you every time).



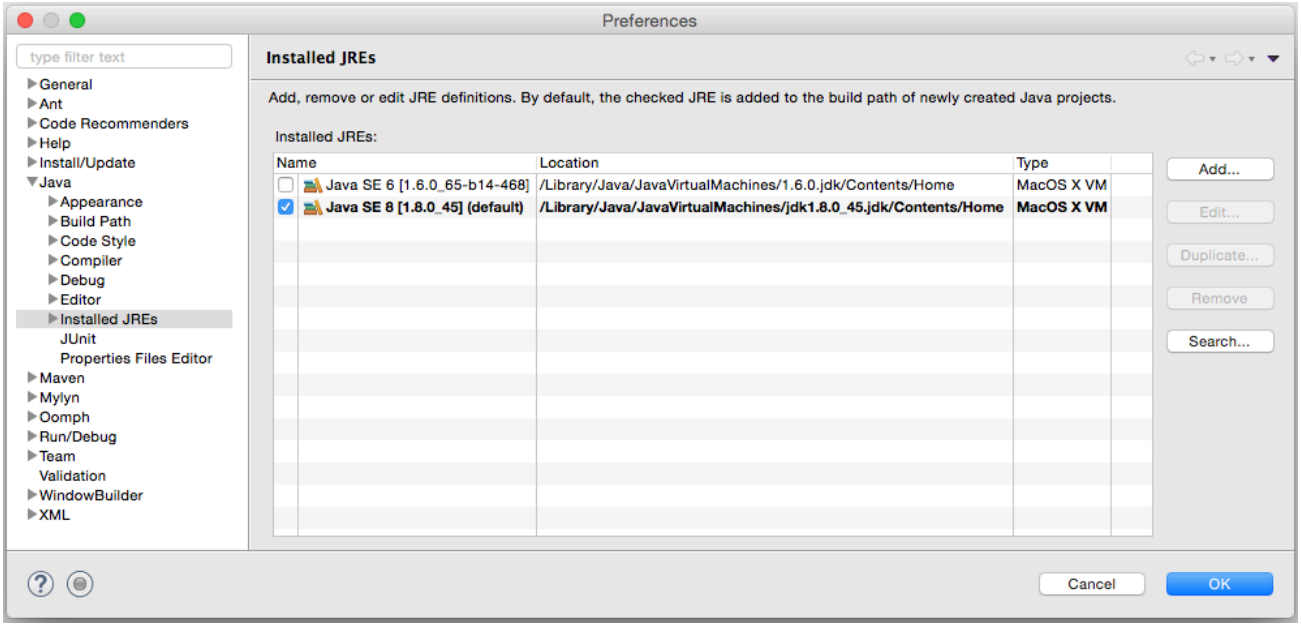
7. Then you will see a welcome screen that has links to lots of information including tutorials and overviews. We encourage you to try out some of these, but if you just want to dive in and get started, click the Workbench icon in the top right corner.

Setting Up the Correct JDK

IMPORTANT: Most versions of OS X come with Java 6 preinstalled on the system. Even if you have already installed a newer version of Java, Eclipse will automatically use this older version of Java instead of the newly installed version. Since this course has been designed using Java 7 and Java 8 you will run into problems if you don’t set Eclipse to use the newer version of Java.

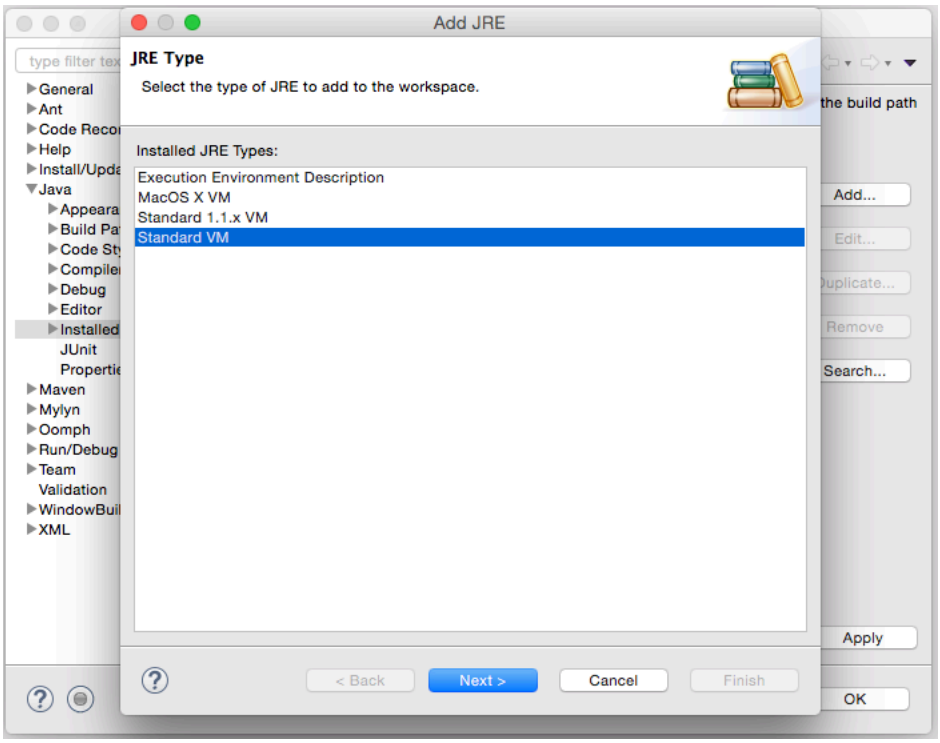
1. Go to Eclipse->Preferences

2. In the window that opens select Java->Installed JREs in the menu on the left. In the main portion of the window will be listed each version of Java that Eclipse knows about. If you see the newer version of Java that you installed, then make sure the box next to it is checked and click “OK”. If you do not see the newer version of Java you installed, then click “Search…” If Eclipse finds the newer version of Java then it will appear in the list in the main portion of the window. Make sure the box next to the newer version of Java is checked and click “OK”.



3. If Eclipse was unable to find the version of Java you just installed then you will have to add it manually. Click “Add…” button.

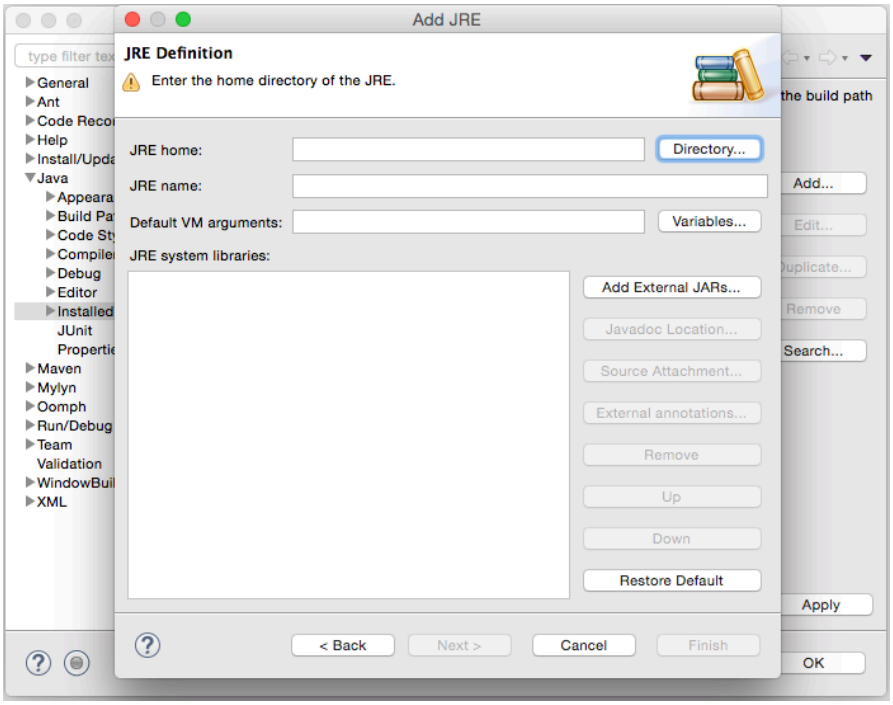
4. In the next window, select “Standard VM” from the list and click “Next >”.



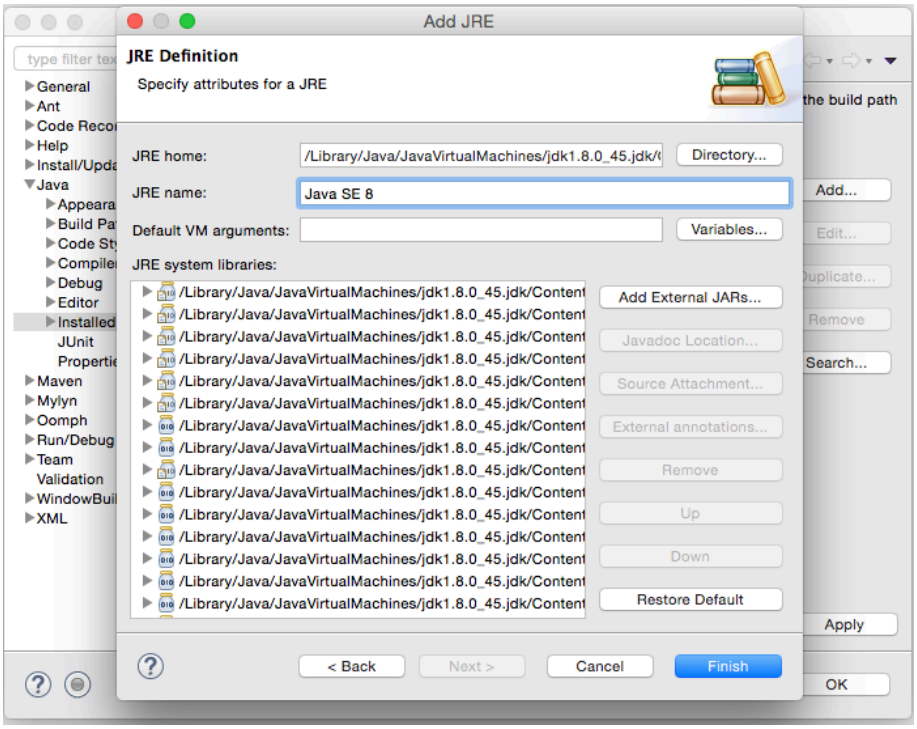
5. In the Add JDK window, click the “Directory…” button next to where it says “JRE Home”. You will now have to navigate to where Java has been installed onto your system. It is usually in this location:

/Library/Java/JavaVirtualMachines/jdk1.8.0_45.jdk/Contents/Home

For you, the folder “jdk1.8.0_45.jdk” may be slightly different depending on which version of Java you have installed. Once you have the correct directory selected, click “Open”.



6. In the box labeled “JRE name” put a name that indicates which version of Java this is such as “Java 7” or “Java 8”. Doing this will make it easy to determine which version of Java you are using later on if you need to check. Click “Finish”.



7. Your newer version of Java should now appear in the Installed JREs window. Make sure the box next to it is checked and click “OK”.

You are now ready to setup and start working with UnfoldingMaps!