UNVIERSITY OF VICTORIA

Manual Eclipse CDT Mac OS Mountain Lion

Installation & Demonstration Guide

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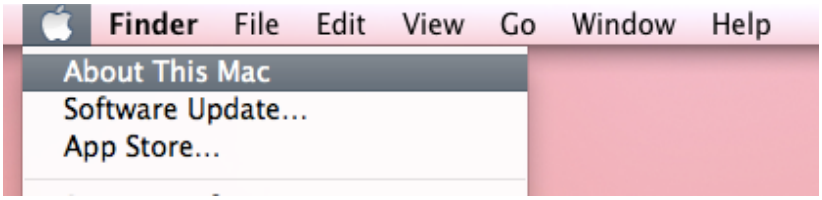
This guide shows how to use install Eclipse and C-Compiler and how to test the setup by creating a simple 'hello world' program. NOTE: This guide is based on Mac OS Mountain Lion (64Bit) and Eclipse Kepler (4.2).

Mac OS Version

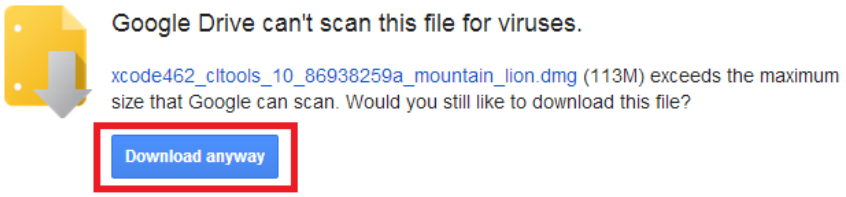
This tutorial is designed to work for Mac OS Mountain Lion. To find out what version you have open 'About This Mac' and look at the version number under the Apple sign. If the version numbers starts with **10.7** then you've come to the right place. Note the version number in the image below is not correct and is only here for demonstrative purposes.



Installing the Compiler

1. The C-Compiler for OSX comes in Command Line Tools. Command Line Tools are not installed by default on your Mac. To get Command Line Tools download the following: https://docs.google.com/uc?id=0B7bIXSWNFM5RZ2xYZV9VeFh5X2s&export=download

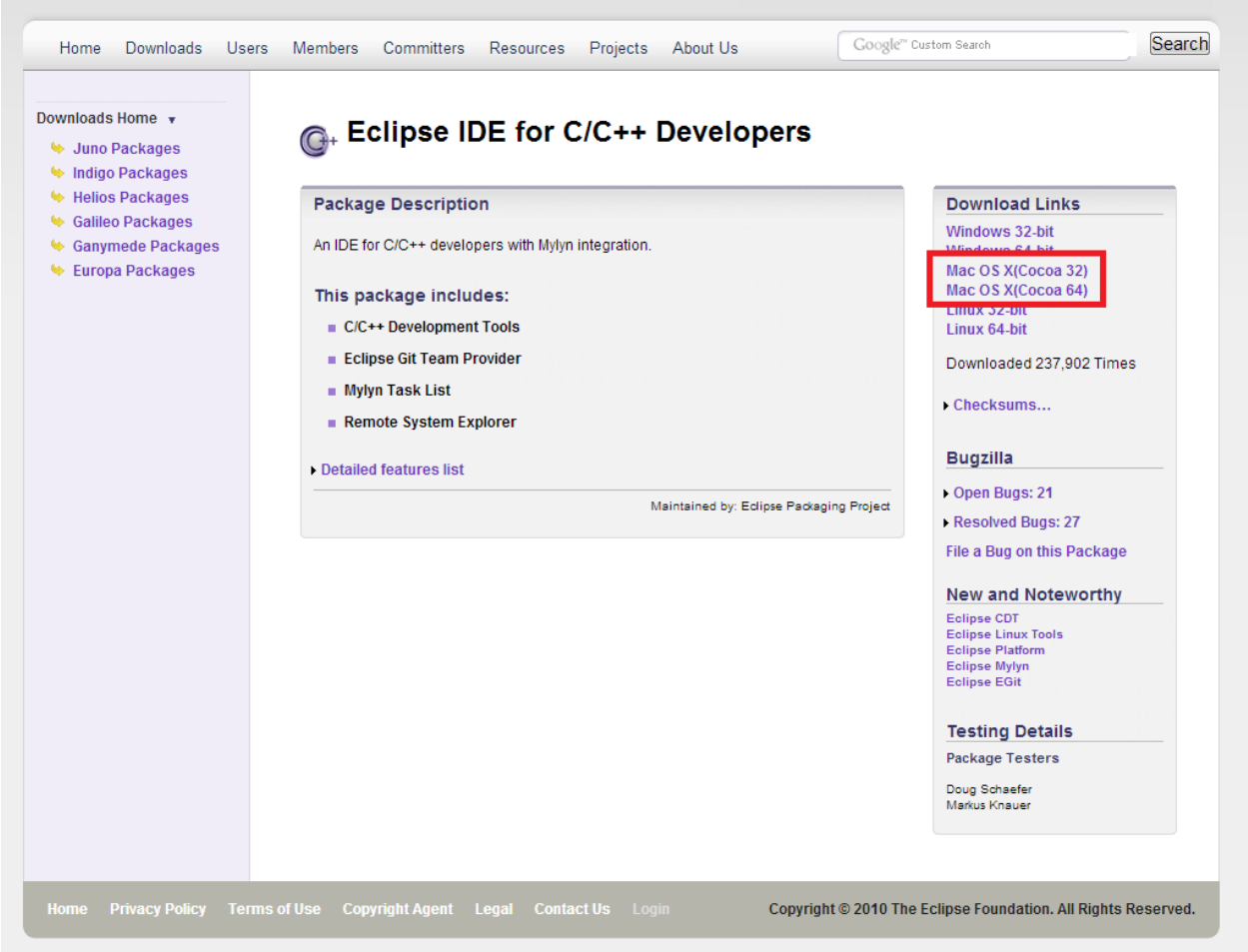
2. On the page click Download button.



3. Once the file is downloaded double click on it and following the instructions provided by the installer.

Installing Eclipse

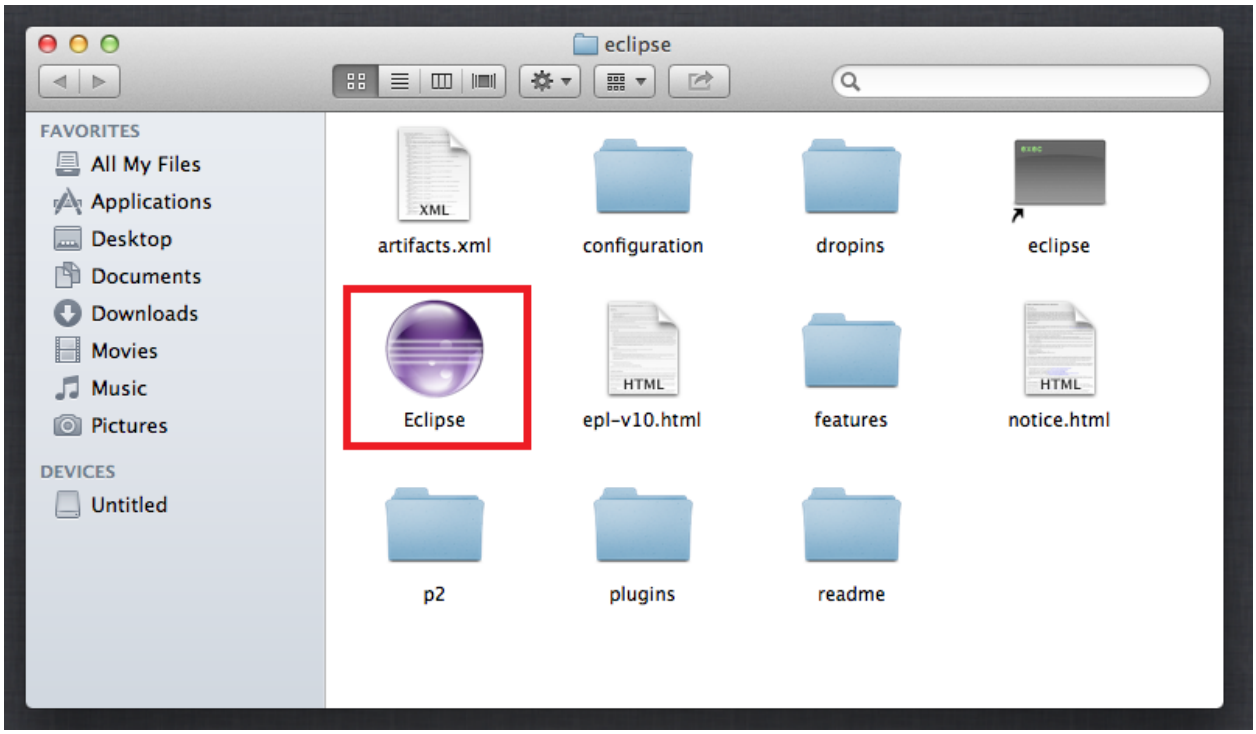
1. Ensure that you have the Java Runtime Environment (JRE) installed. This is required for Eclipse to run. If you plan on using a 64Bit version of Eclipse then you need a 64Bit JRE. If you plan on using a 32Bit version of Eclipse then you need a 32Bit JRE. In this demonstration we are using the 64Bit version.
2. Navigate to: http://www.eclipse.org/downloads/packages/eclipse-ide-cc-developers/keplerr and download the version for your platform.



3. Extract the downloaded file where it is most convenient. There is no installer for Eclipse so wherever you unzip is where Eclipse will exist.

Demo Using Eclipse

1. Open the *eclipse* folder by double clicking on eclipse folder (where eclipse was downloaded). The contents of this folder will look like:

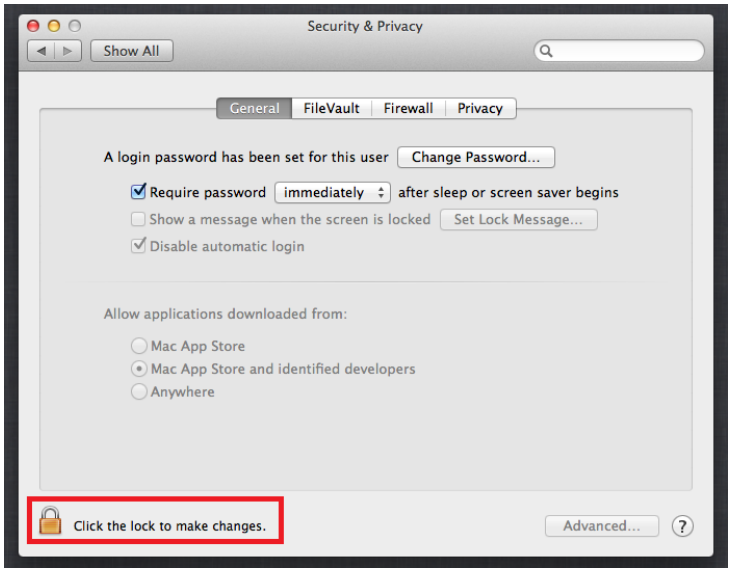


2. At this point you may get a warning that Eclipse can't be opened because it is from an unidentified developer.

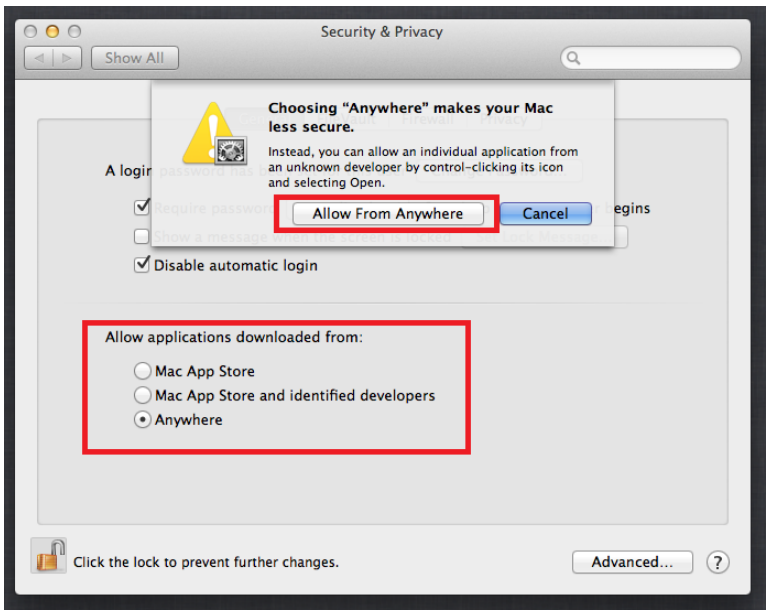
If this is the case then you have to allow the installation of third party applications in Mac OS.

   a. Open System Preferences and click on Security & Privacy

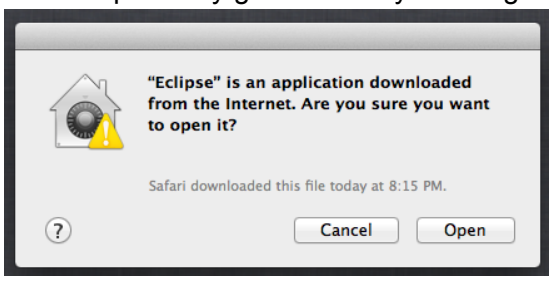
b. On the next window ensure that editing is enabled. On the bottom left see that the padlock is open. If it is not click on the padlock to enable the editing of settings on this window.



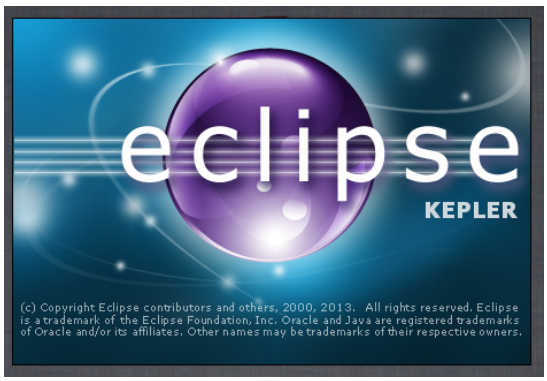
c. Now under the “Allow applications download from:” section change the selection to “Anywhere”. At this point you will get a second confirmation drop down. Click “Allow From Anywhere”. Now you are done. Go back and double click on the Eclipse icon again.



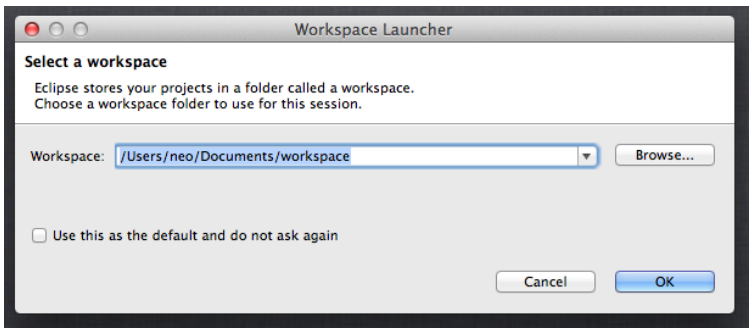
3. You will probably get a security warning about starting Eclipse. Click "Open".



4. After you double-click on Eclipse, the following screen will appear indicating that eclipse has started.

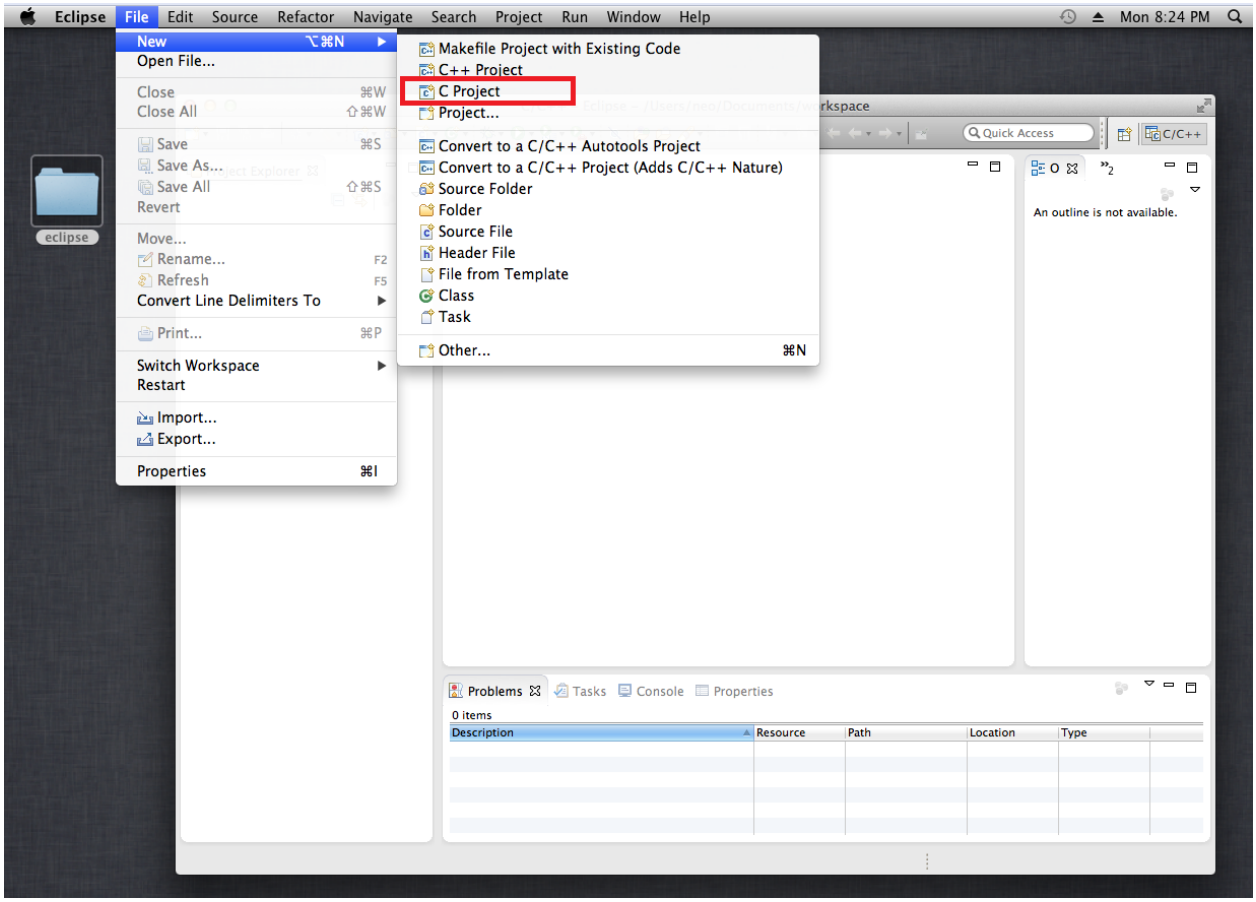


5. Immediately after that Eclipse will ask you for your workspace location. It defaults to a place within your personal settings. It is up to you to choose a new location or use the default workspace. Then, click OK.

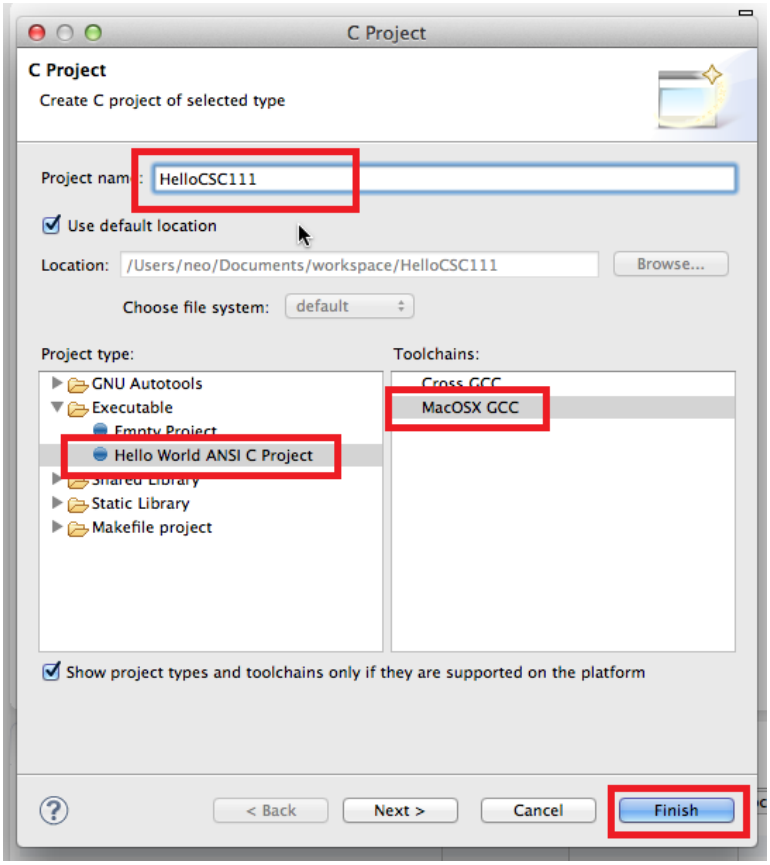


6. Eclipse starts up with a welcome page. Click on the “x” to close the welcome page.

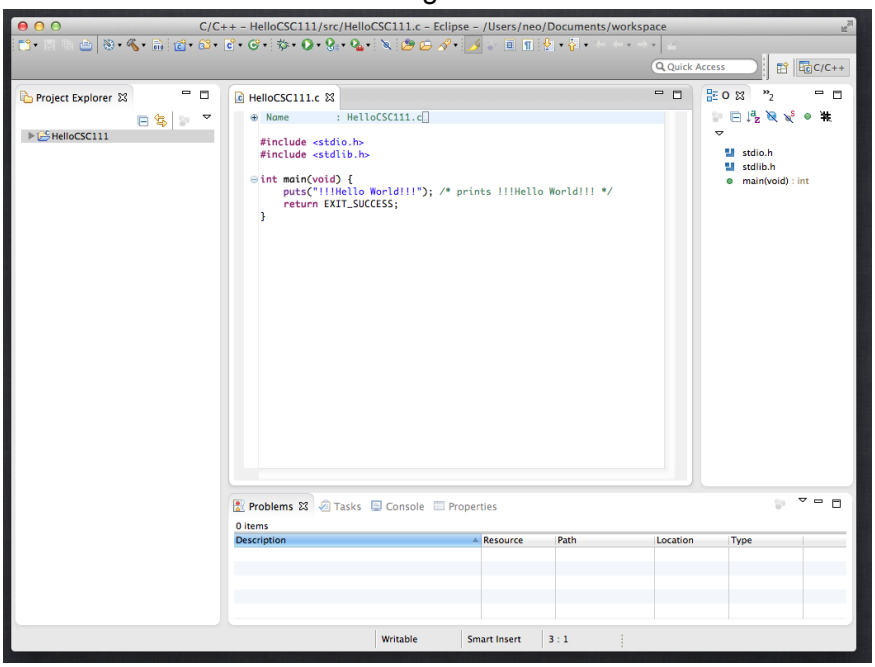
7. Create a new C project via the File menu.



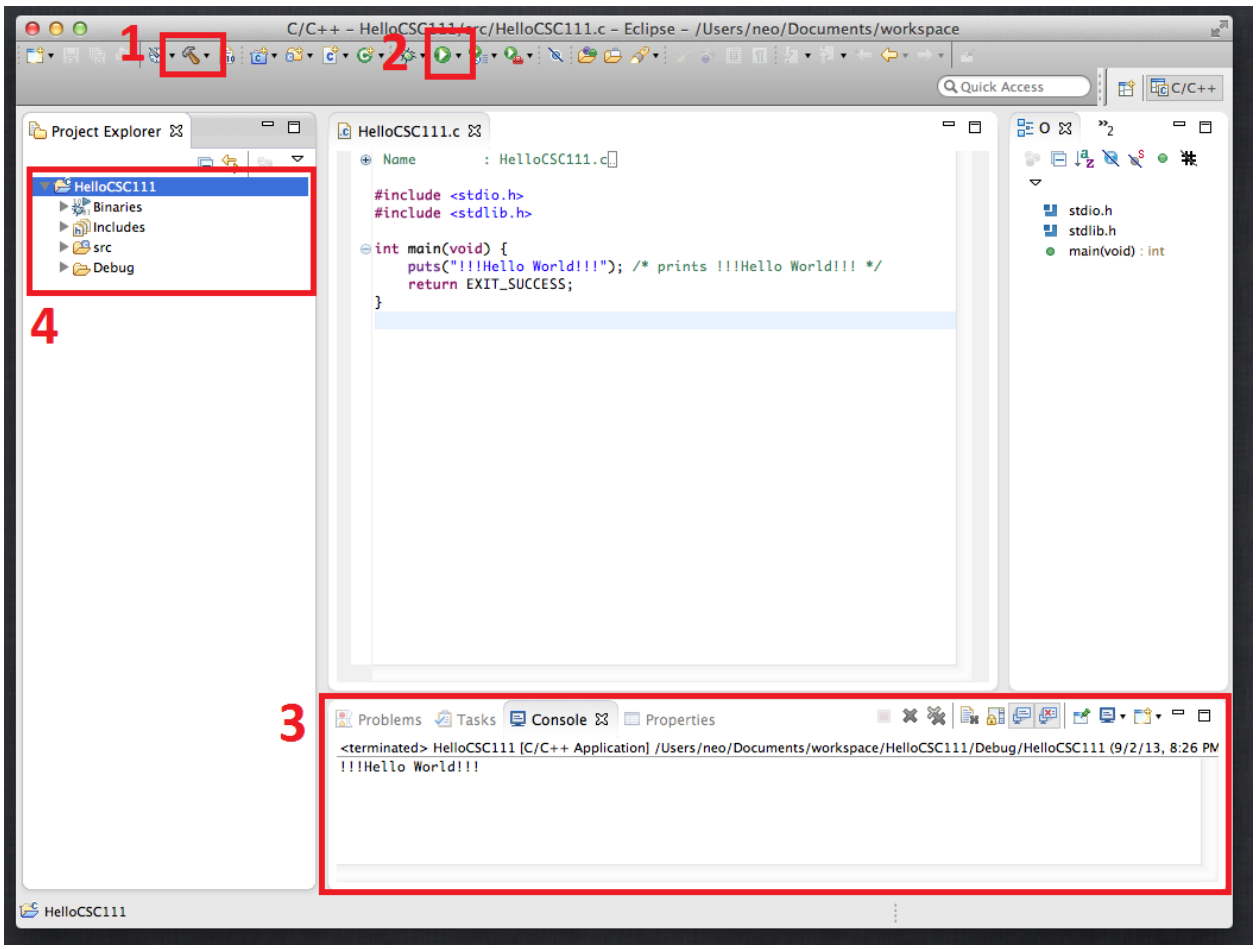
8. Give your project a name; ensure there are no spaces in your project name. Select the Executable and Tool Chain options as highlighted below. This is very important. You must select the right Tool chain or things will not work. Click “Finish”.



9. You should now see the following view.

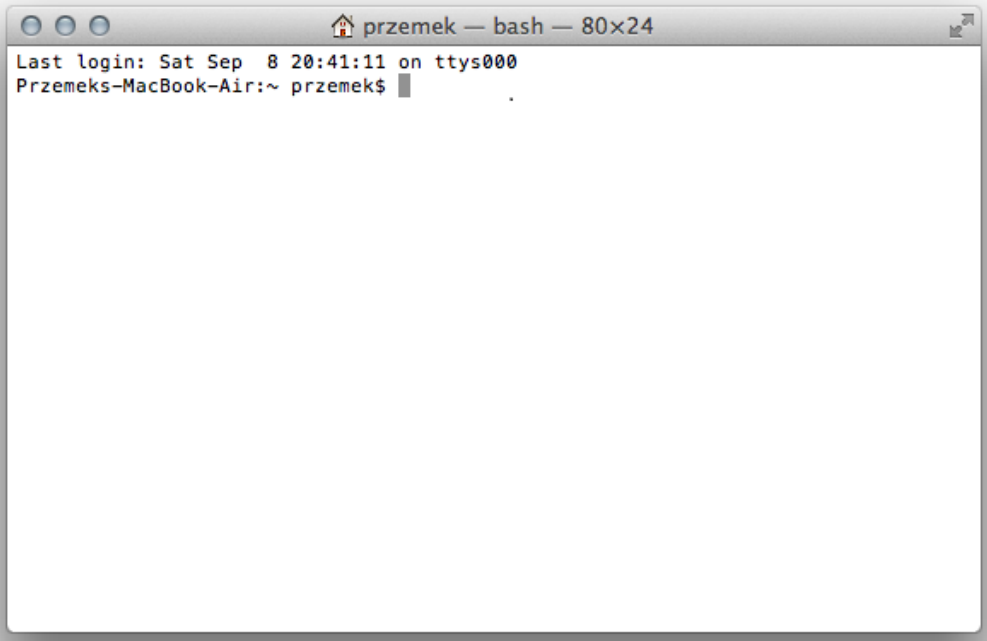


10. Now build and run your project. Expand the tree on the left hand side if you want to see your files. On the bottom of the screen select the “Console” tab where you will see the output of your program.

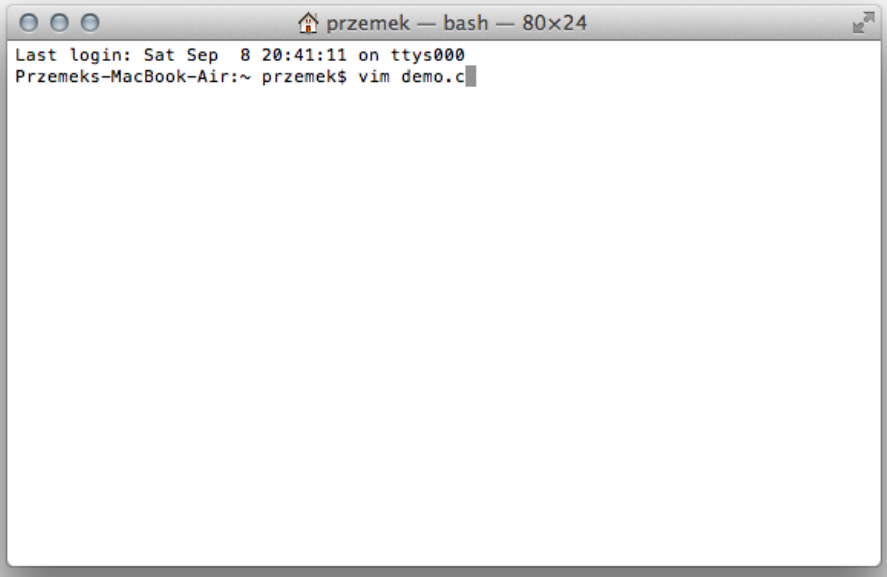

C/C++ - HelloCSC111/src/HelloCSC111.c - Eclipse - /Users/neo/Documents/workspace
1
2
Quick Access
C/C++
Project Explorer
HelloCSC111
Binaries
Includes
src
Debug
4
HelloCSC111.c
Name : HelloCSC111.c
#include <stdio.h>
#include <stdlib.h>
int main(void) {
puts("!!!Hello World!!!"); /* prints !!!Hello World!!! */
return EXIT_SUCCESS;
}
stdio.h
stdlib.h
main(void) : int
3
Problems
Tasks
Console
Properties
<terminated> HelloCSC111 [C/C++ Application] /Users/neo/Documents/workspace/HelloCSC111/Debug/HelloCSC111 (9/2/13, 8:26 PM
!!!Hello World!!!
HelloCSC111

Demo Using Command Line

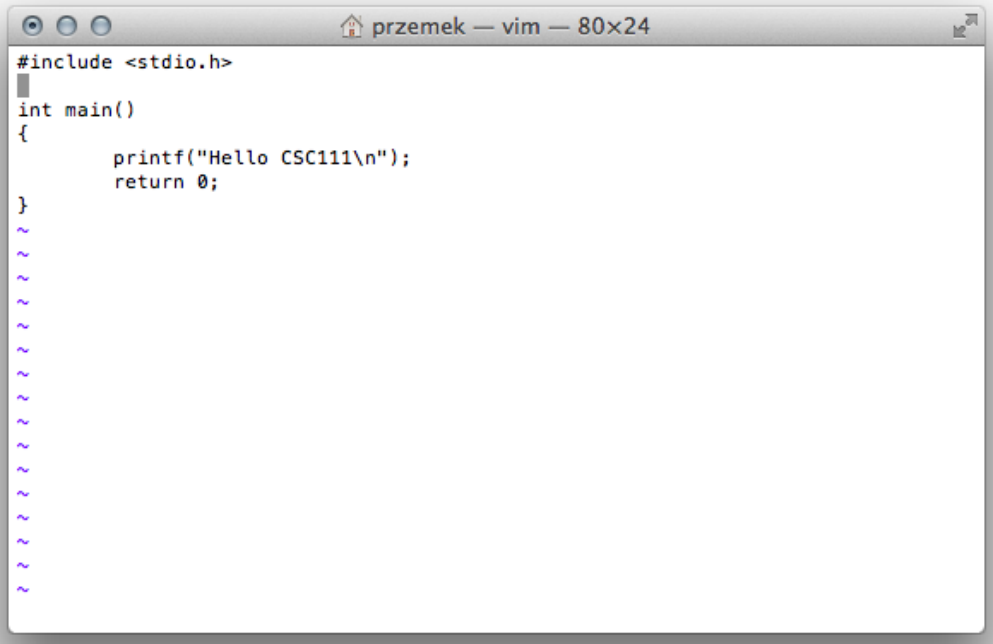
1. Start the Terminal



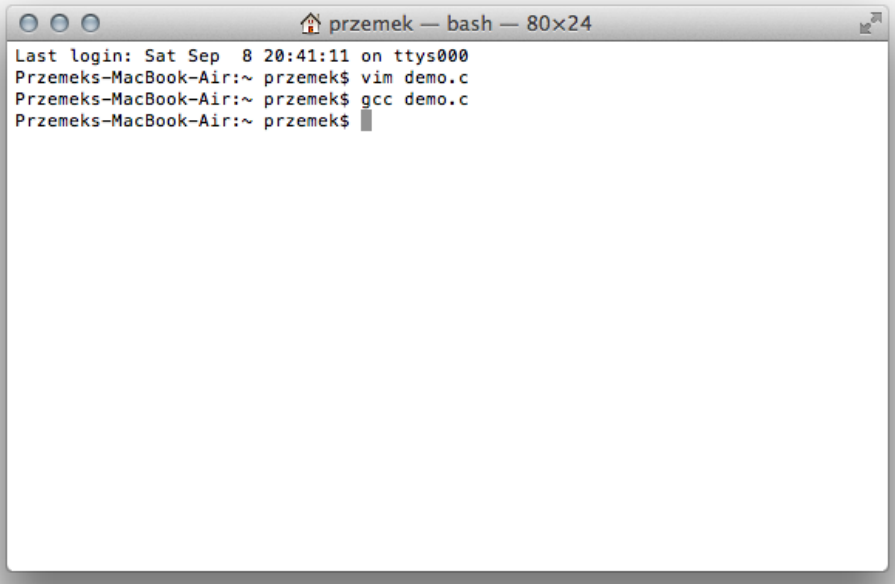
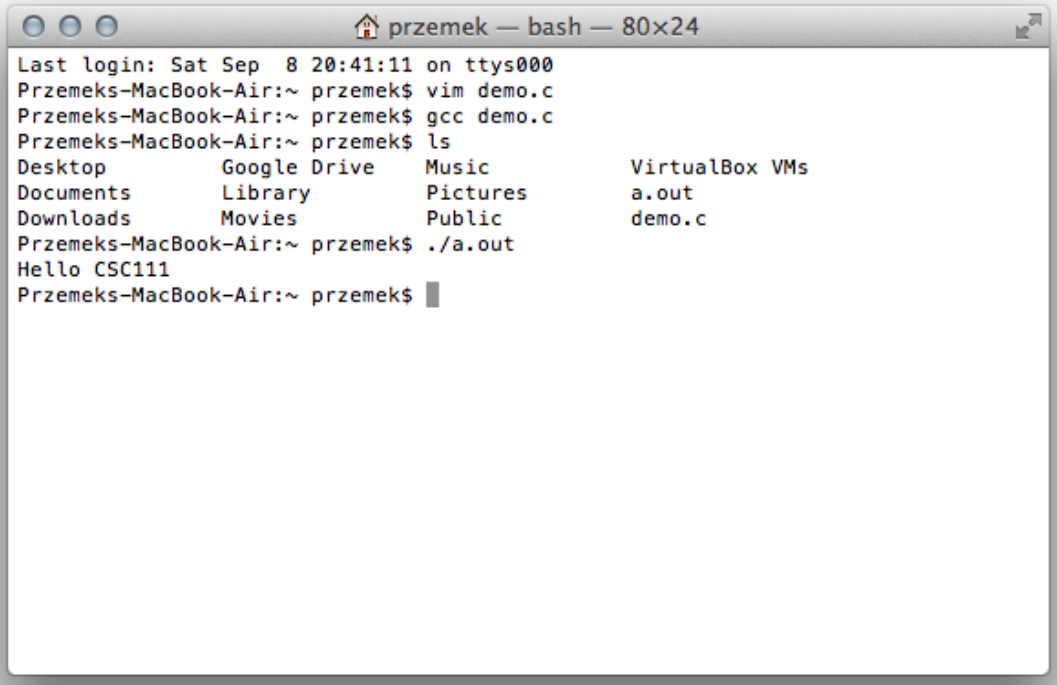
2. We will use the vim text editor to create our hello world. Simply type ‘vim demo.c’ and press ‘Enter’.



3. Press the ‘i’ character to turn on edit mode. Type the program as it appears below



4. Press ‘Shift+:’, type ‘wq’ and press ‘Enter’. This will save your work and exit the vim program. You should now be back in Terminal. Compile the program by typing ‘gcc demo.c’. If you entered your program correctly you should get no errors.



5. Now you can type the ‘ls’ command which will show all the files in the current directory. If your program compiled successfully you will see a ‘a.out’ file. This is your compiled program. Type ‘./a.out’ to run the program. You should see your message.