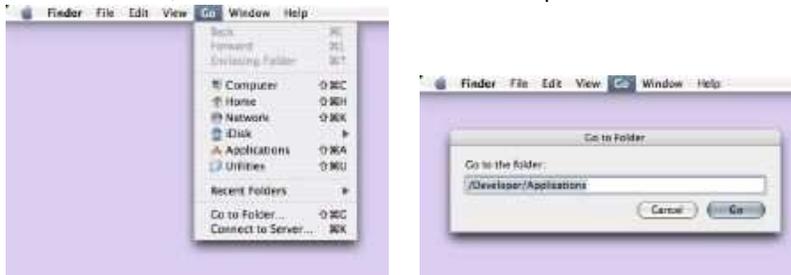


cisc1110 fall 2010  
How to get started with **Xcode**

1. Start up Xcode

From the Finder, select the **Go – Go to Folder** option:



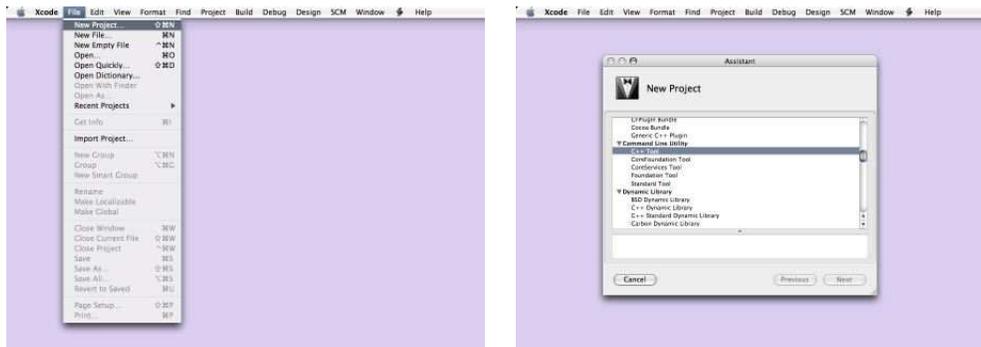
and type **/Developer/Applications** in the “Go to Folder” window that pops up. Then find the **Xcode** icon in the “Developer - Applications” window that looks like this:



and double-click on it and Xcode will start up.

2. Open a project

Click on **File – New Project** to create a new project, and then select **C++ Tool**, under **Command Line Utility** in the **Assistant** window that pops up after selecting “New Project”. Then click on **Next**.

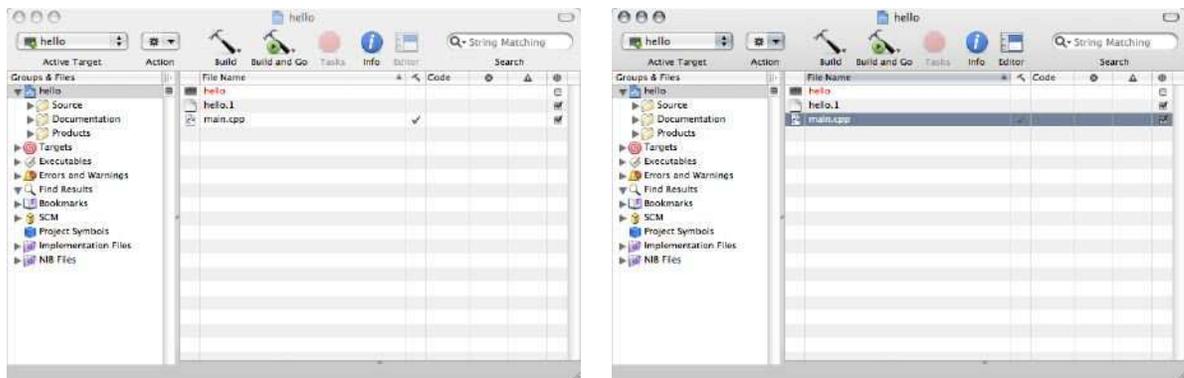


Then, in the “Assistant” window, enter the name of the project in the text field next to the **Project Name**. Note that the **Project Directory** field will fill in automatically with the project name entered above. If you want to change the directory (i.e., folder) where the project is located, then edit the **Project Directory** field. When the name of a directory begins with the tilde and slash (~ /) characters, this means that the directory will be found under your home directory (i.e., as a subfolder inside your home folder).

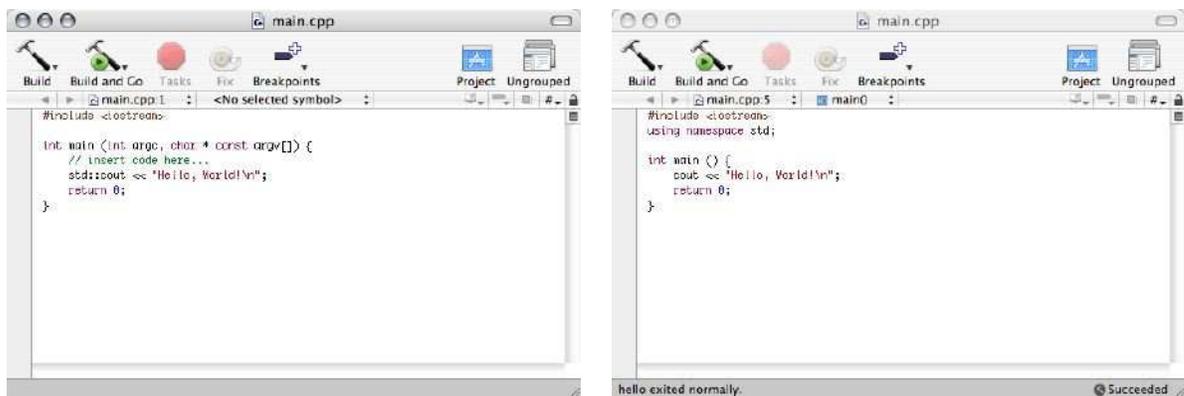


### 3. Edit the project

When the project window opens, double-click on the line that says **main.cpp** to open the editing window.



Next, the text editor window opens. The default template is shown on the left. On the right, the template has been edited to contain the version of the “hello world” program that we created in class.



#### 4. Compile the project

Find the **Build** icon located in the upper left corner of the editor window:



and click on it to compile your code.

The status bar at the bottom of the editor window will display any status messages, such as “Build succeeded” or “Build failed”. If there are errors compiling, and the “Build failed” message appears, then the lines where the errors occur will be marked with red X’s in the left margin of the editor window. Correct the errors and click on “Build” again.

If the build is successful, then go on to the next step.

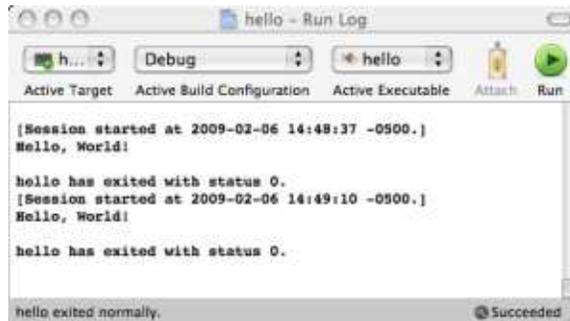
#### 5. Run the project

Find the **Build and Go** icon located in the editor window, next to the “Build” icon:



and click on it to execute your code.

A “Run Log” window will appear to display any output your program generates. The status bar at the bottom of the run log window display any status messages, such as “program exited normally.”



## 6. File structure

When you use an Integrated Development Environment (IDE) like Xcode, it is important to understand the file structure of the project which is generated automatically by the IDE. As indicated earlier (see step 2), opening a new project creates a directory which, by default, has the same name as the project. In our example, this directory is called `~/hello/`. Inside this directory, there is a file called **hello.xcodeproj**, the main C++ source code file, which is called **main.cpp**, a subdirectory called **build**, and a documentation file called **hello.1**. Inside the **build** directory, there is another subdirectory called **Debug**; and inside the **Debug** directory, there is a file called **hello**. This file is the executable, or runnable file that is generated by the compiler. You could execute this file from the Terminal application command line, as we have done in class.

The overall project file structure is organized like this:

```
~/hello/  
|  
+----- hello.xcodeproj  
        main.cpp      <<=== this is your C++ source code  
        hello.1  
        build/  
        |  
        +----- hello    <<=== this is your program executable
```

or as shown in the Mac Finder window:



When you save your work, you should save the entire `~/hello/` project folder.

When you submit assignments, you should ONLY submit the C++ source code, i.e., the **main.cpp** file.