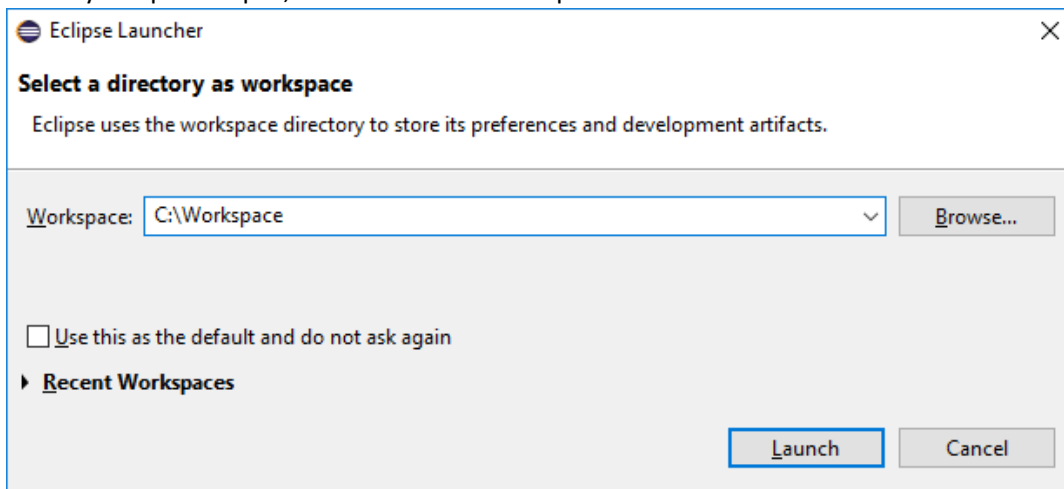


Creating Your First C++ Project in Eclipse

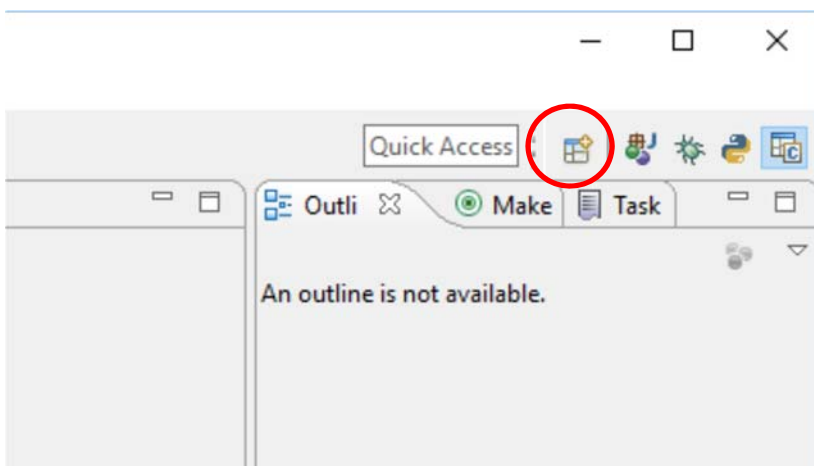
Assuming your environment is configured correctly, it's now time to create a basic C++ *Hello World* project in Eclipse.

- 1) Select your workspace. The workspace is a directory where you will put your projects. In this course, each project must reside in a separate directory. Put the workspace in some convenient location, like `C:\workspace` in Windows or `~/workspace` on Mac and Linux.

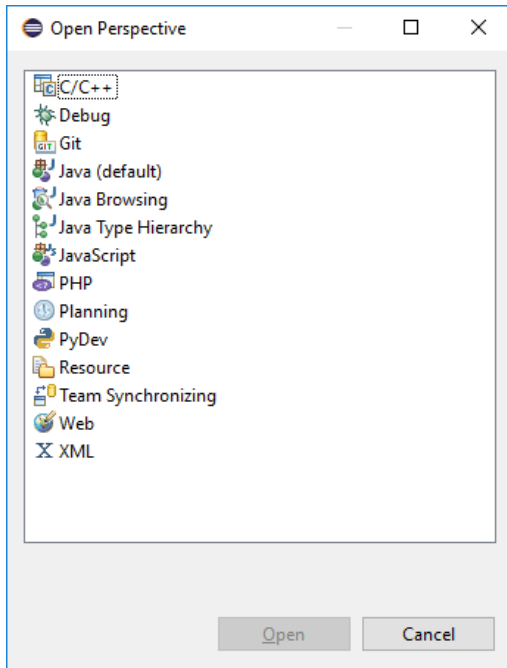
When you open Eclipse, direct it to that workspace.



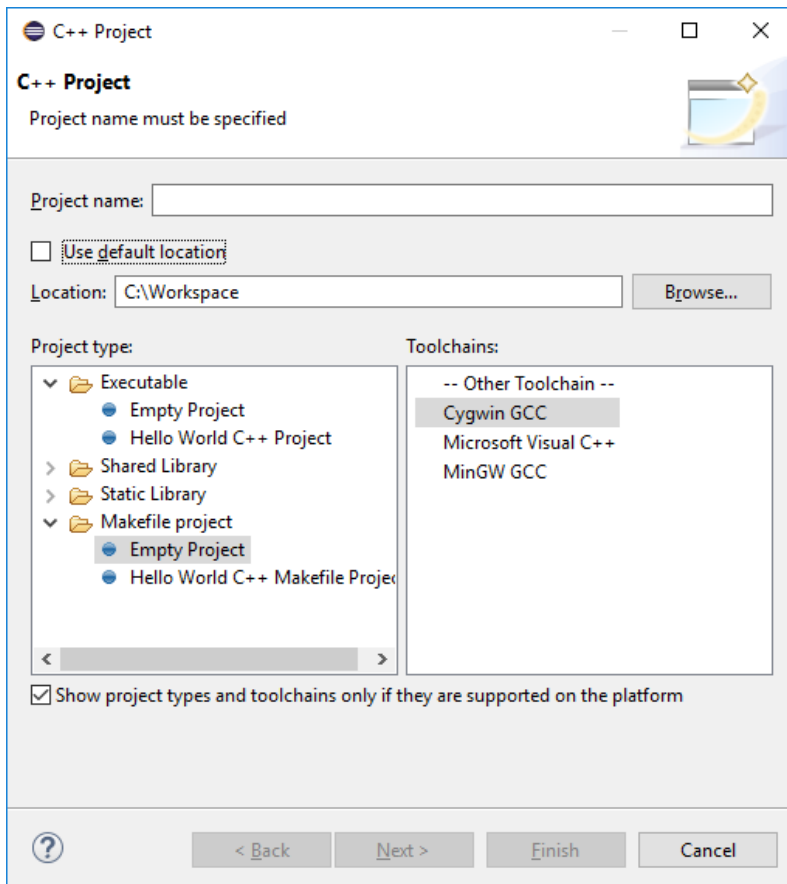
- 2) Make sure you are in the C/C++ perspective. Go to the top right corner and click the small box with the + sign.



Then select C/C++ from the dialog box.



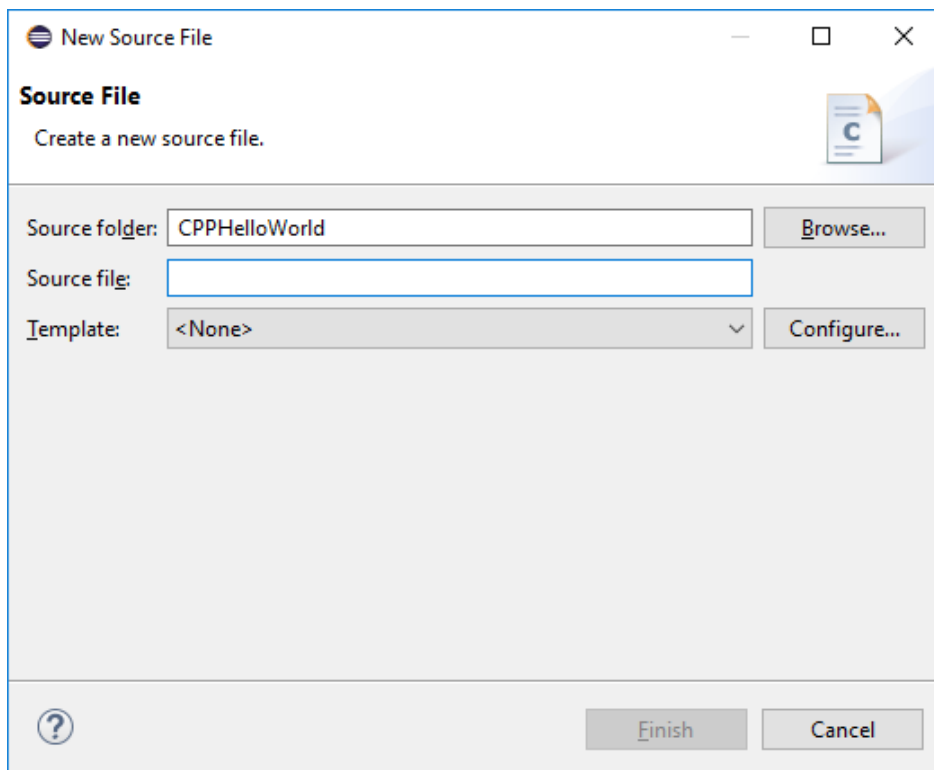
3) Select File -> New -> C++ Project.



- 4) The project name should be *CPPHelloWorld*. You should use the default location, which points to wherever your workspace resides. Make sure you choose Makefile project -> Empty Project and use the Cygwin GCC toolchain. (Select the appropriate toolchain for your Mac and Linux installations.) Then click the *Finish* button.
- 5) After fully expanding the project, you should now see the following in the Project Explorer. The exact names and versions may differ slightly from the image below, but the folder **should not** be empty. We have had problems with the white-text-on-black-background (aka Dark) color scheme. If your folder is empty, make sure you are using the normal color scheme depicted in these images.



- 6) Right click the CPPHelloWorld folder and select New -> Source File.

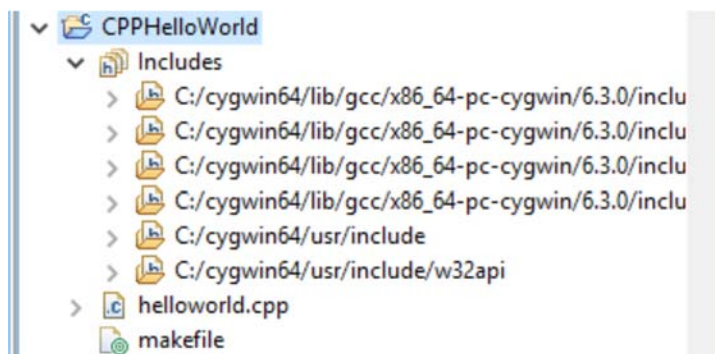



Enter the name of the source file *helloworld.cpp* and click the *Finish* button.

- 7) Copy the following text into the body of *helloworld.cpp*, and fill in the Author, Date, and Pledge lines of the header.

```
/* *****  
 * Name      : helloworld.cpp  
 * Author    :  
 * Date      :  
 * Description : Basic Hello World program  
 * Pledge    :  
 * ***** */  
  
#include <iostream>  
  
using namespace std;  
  
int main() {  
    cout << "Hello, world!" << endl;  
    return 0;  
}
```


- 8) Copy the “Simple drop-in makefile for single-file projects” in the Week 1 Canvas module to the *CPPHelloWorld* directory. Right-click the folder in the Project Explorer and select Refresh. You should now see the makefile in the Project Explorer.



- 9) Now build the project by pressing the hammer button  in the toolbar. You should see text in the console window similar to the following:

```
21:53:48 **** Build of configuration Default for project CPPHelloWorld ****  
make all  
g++ -g -Wall -Werror -pedantic-errors -fmessage-length=0 helloworld.cpp -o helloworld  
  
21:53:49 Build Finished (took 683ms)
```

If you don't see `-Wall -Werror -pedantic-errors`, you created the project incorrectly. Note that any time you make a change to the source code, you need to rebuild.

- 10) Run the project by pressing the run button  in the toolbar. You should see *Hello, World!* in the console window. If it doesn't work, you may need to click the down arrow to the right of the run button and select Run As -> Local C/C++ Application. You will probably need to do this only the first time you run a new project. If you made it this far, congrats! Your environment is working properly.