

## Creating and using a static library in eclipse

The details of setting up a static library in eclipse and using it in a test project.

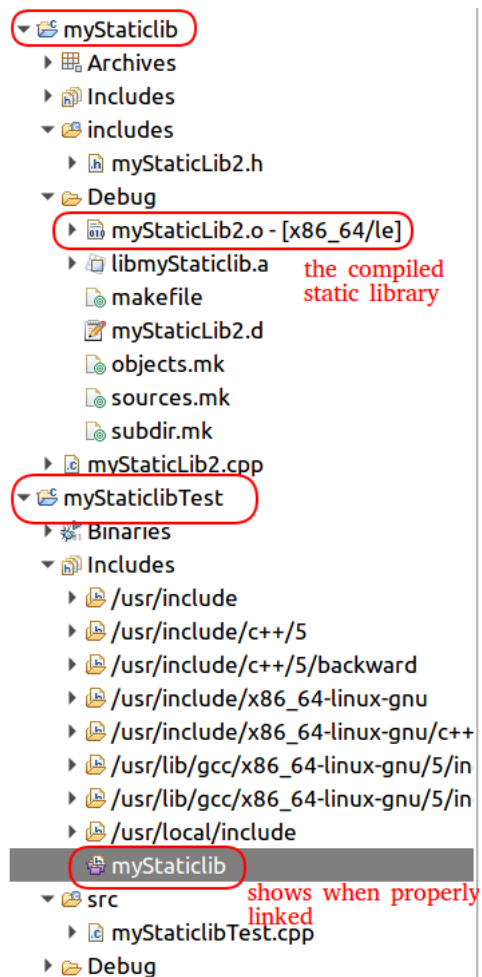
### Projects Created:

myStaticlib

myStaticLibTest

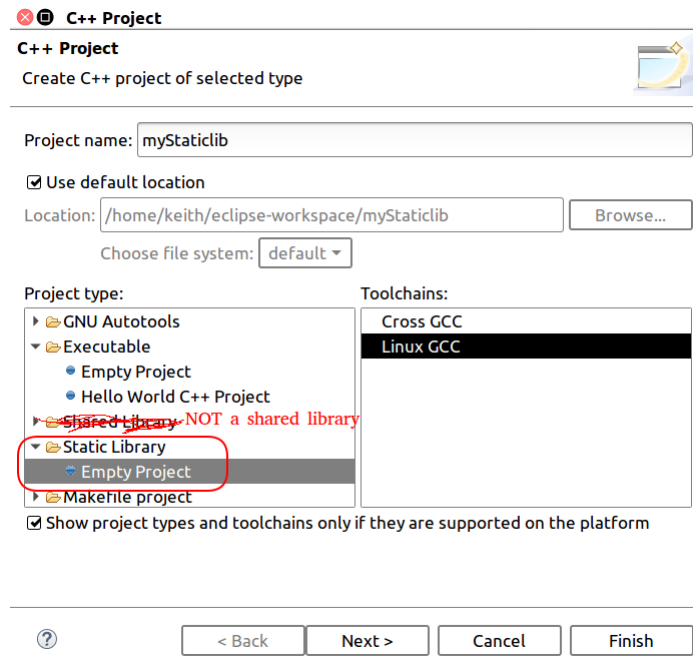
### Completed Eclipse Directory Structure

Here is how eclipse's directory structure will look when done



## Create The Static library project (myStaticlib)

1. Create static library project.

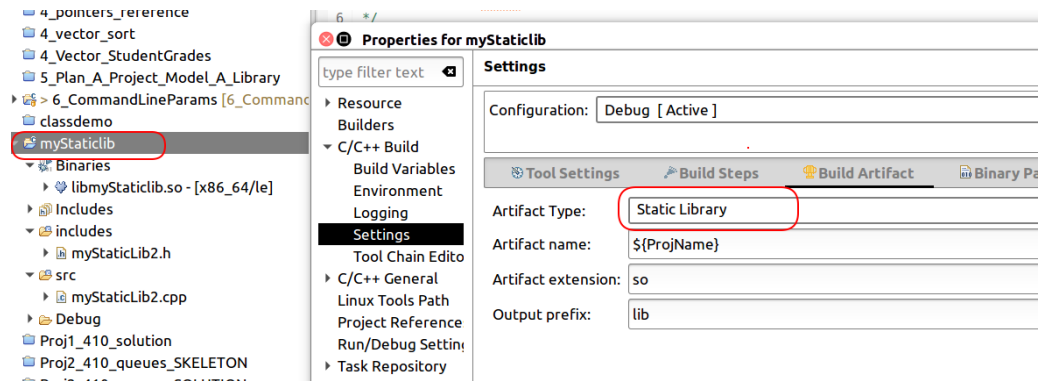


2. Add a src folder to the project (not a plain folder)
3. Add a cpp and corresponding .h file. Add a function (no main()) to this library in both the cpp and header. For instance;

```
1 /*
2  * myStaticLib2.cpp
3  *
4  * Created on: Oct 6, 2017
5  * Author: keith
6  */
7 #include "../includes/myStaticLib2.h"
8
9 #include <iostream>
10
11 void show(){
12
13     std::cout<<"In library"<<std::endl;
14 }
15
```

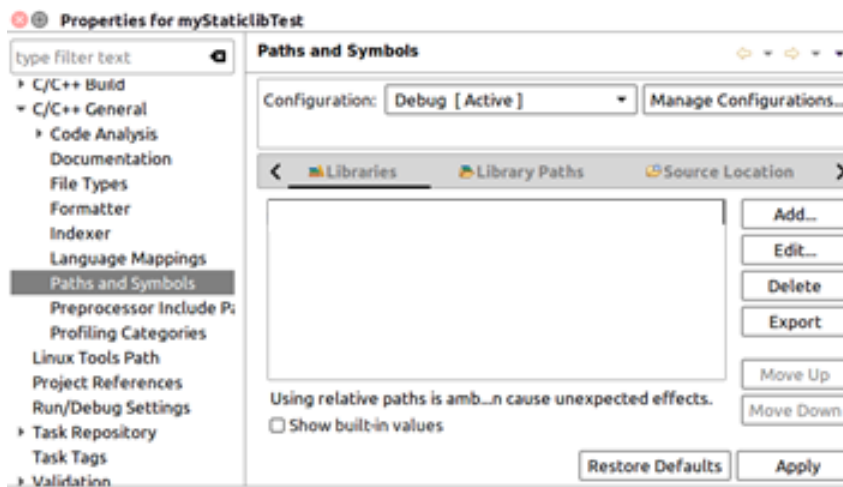
```
1 /*
2  * myStaticLib2.h
3  *
4  * Created on: Oct 6, 2017
5  * Author: keith
6  */
7
8 #ifndef MYSTATICLIB2_H_
9 #define MYSTATICLIB2_H_
10
11 void show();
12
13 #endif /* MYSTATICLIB2_H_ */
14
```

4. Compile it. The library will have the prefix 'a' (on windows its 'lib'). You can look at its properties to verify that it's a static library (select project, Properties, then in the following UI)

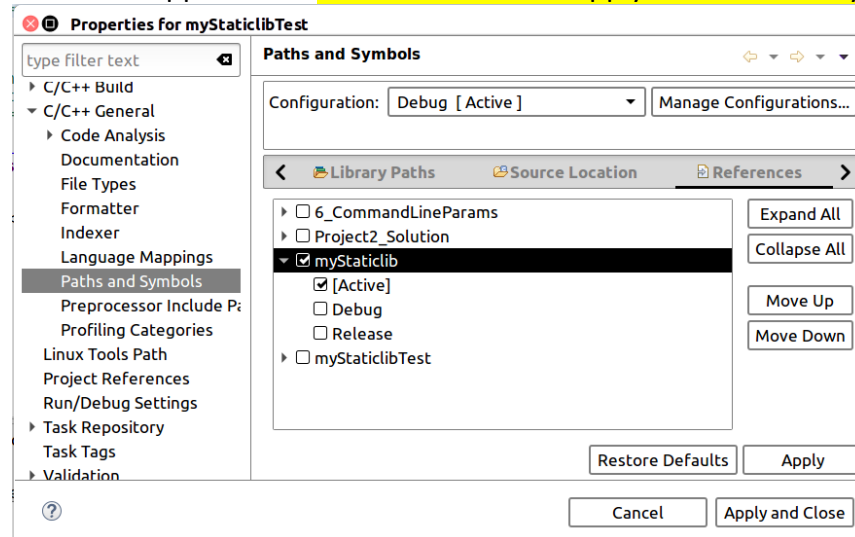


## Create a test project that uses the static library (myStaticLibTest)

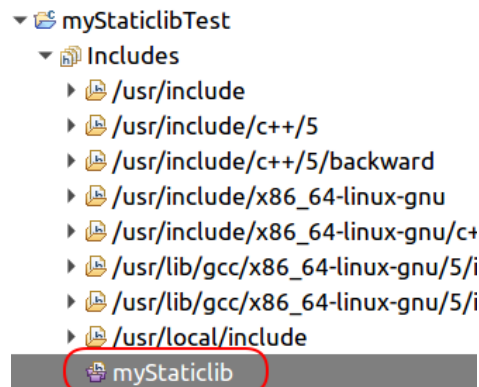
5. Create a regular project.
6. Click on your regular project, then properties, then C/C++ General, Paths and Symbols, then the Libraries tab(see the illustration below).



7. Choose the reference tab (the rightmost one) and add a reference to the library you want to link to this application. **Be sure to click the Apply button to save your changes**



8. At this point your lib should appear in the includes directory of your project.



9. Include the libraries header in the test file. And add a call to the library function.

```
myStaticlibTest.cpp
1 //
2 // Name      : myStaticlibTest.cpp
3 // Author    :
4 // Version   :
5 // Copyright : Your copyright notice
6 // Description : Hello World in C++, Ansi-style
7 //=====
8
9 #include <iostream>
10 using namespace std;
11 #include "../myStaticlib/includes/myStaticLib2.h"
12
13 int main() {
14     show();
15 }
```