

Setting up the Xerces API for C++ on Mac OS X

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This is document <http://teaching.cs.uml.edu/~heines/91.204/91.204-2011-12s/204-lecs/Xerces-C%20NetBeans%20MacOSX.pdf>

I decided to follow the source distribution and compile it by myself.

1. The first thing I did was downloading the source code from <http://xerces.apache.org/xerces-c/download.cgi>

You can just download the zip file and unzip to a folder (in my case the computing folder).

2. I went to <http://xerces.apache.org/xerces-c/install-3.html#Unix> and followed the build instructions. I did these three things:

```
./configure CFLAGS="-arch x86_64" CXXFLAGS="-arch x86_64"  
./configure --prefix=/opt  
sudo make    (this builds the library)  
sudo make install    (this installs the library)
```

- the sudo commands are important here otherwise it will return some 'permission denied' errors. Also note that the sudo commands will probably require you to reenter your system's administrative password.
- the --prefix configure option will install development files such as include header files and libraries in "/opt". I got this from (<http://www.yolinux.com/TUTORIALS/XML-Xerces-C.html>)
- I also had issues where I got errors because my directory name 'Computing IV' contained a space and I was getting "computing: no such file or directory". So I renamed my directory to just Computing. My guess is that if any directory on the path to xerces-c-3.1.1 is more than just a single word, you might run into issues.

at the end of installation, I get these warnings:

```
make[2]: Nothing to be done for `install-data-am'.  
make[2]: Nothing to be done for `install-exec-am'.
```

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and after some Googling around, I found out that they are not necessarily a problem, so I kept on going.

The installation ends with:

```
test -z "/opt/lib/pkgconfig" || /opt/local/bin/gmkdir -p "/opt/lib/pkgconfig"
/opt/local/bin/ginstall -c -m 644 xerces-c.pc '/opt/lib/pkgconfig'
Francks-MacBook-Pro:xerces-c-3.1.1 franckamayou$
```

so I assume everything went fine.

3. At this point, I picked up at Part II of Jesse's tutorial to build one of the sample programs.

<http://teaching.cs.uml.edu/~heines/91.204/91.204-2011-12s/204-lecs/lecture14.jsp>

EXCEPT that I do not have the g++ issue that breaks the -l option, so no need to worry about his step 6.

4. If you try to compile the NetBeans project now, you will get linker errors such as:

```
g++ -o dist/Debug/GNU-MacOSX/cppapplication_1
build/Debug/GNU-MacOSX/_ext/842610819/DOMPrintErrorHandler.o
build/Debug/GNU-MacOSX/_ext/842610819/DOMPrint.o
build/Debug/GNU-MacOSX/_ext/842610819/DOMTreeErrorReporter.o
build/Debug/GNU-MacOSX/_ext/842610819/DOMPrintFilter.o
Undefined symbols for architecture x86_64:
  "xercesc_3_1::XMLPlatformUtils::fgMemoryManager", referenced
from:
  DOMPrintErrorHandler::handleError(xercesc_3_1::DOMError
const&) in DOMPrintErrorHandler.o
  _main in DOMPrint.o
  StrX::StrX(unsigned short const*) in DOMPrint.o
  StrX::~~StrX() in DOMPrint.o
  StrX::StrX(unsigned short const*) in DOMTreeErrorReporter.o
  StrX::~~StrX() in DOMTreeErrorReporter.o
```

and this is because we need to point NetBeans to the xerces-c library (remember: it's in /opt).

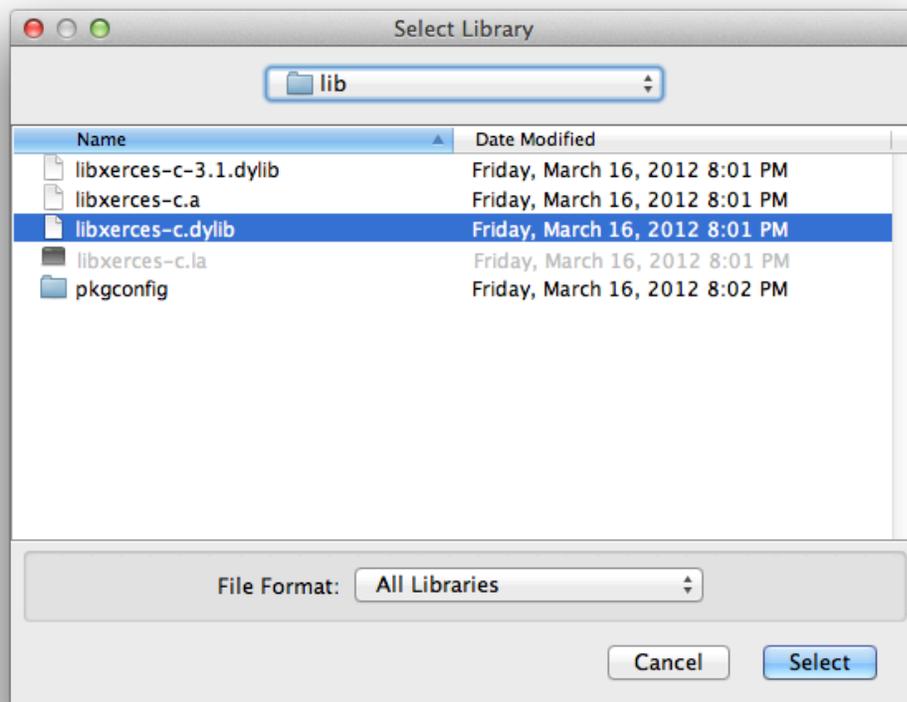
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5. Navigate to the project properties (right click on the project) and select the **Build->Linker** category in the left-hand pane. Next, click the ... button to the right of the **Libraries->Libraries** option in the right-hand pane.
6. In the **Debug->Libraries** dialog box that opens, click the **Add Library...** button. That opens the **Select Library** dialog box (a standard Windows File Open dialog box).

You DO have to navigate to the xerces-c library here. It's at **/opt/lib/libxerces-c.dylib**.

2013 Update: Some students have found that using the **Add Library...** button does not link the library properly. In this case, those students have found that the **Add Library File...** button should be used instead. So if the one doesn't work for you, please try the other.



7. Click **OK** to close that dialog box and you will see **xerces-c** in the Libraries text box in the Project Properties dialog box. Click **OK** again to close that dialog box.
8. The sample program should now compile without error.