

EECS 211

MacPorts Notes

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This course uses the gcc compiler and, to a lesser extent, the Unix or Linux environment, both for consistency, and to expose you to the platform used by many practitioners in computer science. MacOS X comes with the gcc compiler already installed. [MacPorts](#), somewhat like [the CygWin installer](#), is an application that makes it easy to download and install open-source software packages, such as [CppUnit](#), a C++ testing framework.

Installing MacPorts

The Apple Developer Connection has [a very nice article](#) on how to install MacPorts, use MacPorts to install other code, and build an XCode project using the code installed by MacPorts. You should read that article first. Our notes below show what to do to use MacPorts to install and test CppUnit.

First, make sure you have XCode installed. It's on the developer CD that came with your Macintosh. If you don't have it, you can get it [from Apple](#). It's a very big download, so use the CD if you have it.

Next, download and run the current version of the MacPorts installer from [the MacPorts website](#).

Installing CppUnit with MacPorts

Installing software packages with MacPorts is very easy. We'll show how to use it to CppUnit. The same steps would work with any other package.

The default way to run MacPorts is to enter text commands in a Terminal window. There are graphical front-ends as well, but the command lines are very simple for what you'll need to do, so that's all we'll show here.

- Open a Terminal window. (Easy way: command-space, type "terminal" and hit return.)
- Type `sudo port install cppunit +universal`
What does this line do? `port` is the MacPorts program.
 - You use `port arguments...` to do all MacPorts actions.
 - To install and uninstall software, you have to run `port` with [sudo](#), to get administrative access. `sudo` will ask for your password.
 - `cppunit` is the name of the package you want to get. There are hundreds of packages available.
 - `+universal` means you want the "universal" variant of this package. Universal means the code has been compiled to run on Intel and pre-Intel

Macintoshes. By default, that's what XCode wants for released software. (You can change that default but that's outside the scope of this course.)

- MacPorts automatically downloads, builds and installs the software. Just sit back and wait. Watch for error messages.
- When done, the library code should be installed in the directory `/opt/local/lib` and the header files should be in `/opt/local/include`.

Using CppUnit in XCode

To test that CppUnit is installed and working correctly, [follow these example XCode project setup instructions](#). These files have code that define some simple test cases. Some of these tests are **supposed to fail**, in order to show you what that looks like.

Comments?  [Contact the Prof!](#)

