1 Overview

As with the installation of many open-source programs, the install process for Octave is non-trivial, with many unexpected bumps and turns along the way. The odds of exploding your computer, however, are quite small, making this a valuable, low-risk opportunity to step into the frustrating world of open-source. Please read this whole document before starting the process. If you choose not to proceed, you can use MATLAB to complete the lab assignments on the computers in IGPP Revelle Lab or the ACMS lab in Ritter or by a student license of MATLAB at the bookstore for $99.

2 Octave on Windows

Somewhat surprisingly, installing Octave on Windows is pretty straightforward. Generally the steps are: (1) install Cygwin (a stable Linux emulator for Windows. ); (2) Check the box to install Octave. Follow the instructions here: [http://wiki.octave.org/Octave_for_Windows#Octave_on_Cygwin](http://wiki.octave.org/Octave_for_Windows#Octave_on_Cygwin).

3 Octave on OS X

The general process for installing Octave on an Apple computer are: (1) Install MacPorts; (2) Install Octave; (3) Install fails, update MacPorts; (4) Install Octave; (5) Install fails, adjust MacPorts; (6) Repeat steps 4 and 5; (7) Install fails, but Octave runs—Success! The best instructions for installing MacPorts are found at the MacPorts website: [http://guide.macports.org/#installing](http://guide.macports.org/#installing). The instructions for installing Octave are here: [http://wiki.octave.org/Octave_for_MacOS_X#MacPorts](http://wiki.octave.org/Octave_for_MacOS_X#MacPorts).

3.1 Xcode

MacPorts requires Xcode (Step 2.2 in the guide), which needs you to know what version of OS X you are running (⇒ About this Mac, where v10.6 = SnowLeopard, v10.7 = Lion, v10.8 = MountainLion). If you have your OS X install CD handy, the installation of Xcode is easy. If you don’t, you have to download an installation package, which can be up to 4gb depending on the version you grab. In other words, plug in an ethernet cable and find a book to read. The actual installation of Xcode also takes a bit of time.

3.2 Updating MacPorts

For some reason, the installation of MacPorts doesn’t include a check to see if it’s linked to the latest libraries. Before you try to install Octave, run `sudo port selfupdate` to make sure MacPorts is all up-to-date. When I tried to install Octave without doing that, it didn’t recognize the *atlas* option, confusing me significantly.

3.3 Problems with MacPorts

You’re going to run into problems while installing Octave via MacPorts. It always happens. The first step to solving the problem is actually reading the error message that comes up. MacPorts is smart enough to offer a solution, but not smart enough to execute it. Usually their solution works. So read the message and try that solution first. If MacPorts’ solution doesn’t work, google is your friend—you are definitely not the first person to come across the same error.

4 Final Thoughts

Installing Octave will be a time-consuming process. It took me most of an evening to download and install everything I needed to make Octave work on my first-generation MacBook Air running OS X v10.6.8. Those with newer operating systems will likely spend a bit less time, but we’re definitely well into the “hours” order of magnitude, not minutes. But you will learn a bit more about your computer and how it works in the process.