Some Resources

linux

There are many different flavors of Linux, most of which come completely free. Ubuntu is one of the most popular, and it's one of the more simpler distributions to use.

A free pdf to an Ubuntu Pocket Guide.

virtualization

If you're afraid to trash your family home computer by erasing Windows or dual-booting, try virtualization. VMWare has free products that will allow you to run Linux as a virtual machine. I've lost track exactly of what the differences are between their products, but VMWare Server and VMWare Player are free. VMWare Workstation isn't. You could also try VirtualBox.

cygwin

If you decide that you're going to go Windows-only, you might like Cygwin. There are ports of all of the major tools that we've been using in class. When installing, be sure to install gcc and gdb. It also wouldn't be a bad idea to install git, make, and perhaps a text editor of choice.

emacs

Handout of some Emacs tricks for people used to pico or nano.

gdb

A quick reference.

You might also try these screencasts: GDB essentials part 1 and GDB essentials part 2.

Alex Burns found Beej's Quick Guide to be helpful.

getting your files to and from Temple's servers

To transfer files between your personal computer and the CIS Department servers, you'll need to use a scp or sftp client. A very good command-line client is installed by default on Macs and most Linux distributions, and can be installed as an additional package under Cygwin. Here's a short screencast on its use.

If you'd prefer a client with a GUI, you could try Fugu on the Mac, or WinSCP on Windows. I'm unfamiliar with both of these.

subversion

- An introduction to subversion.
- Free book: Version Control with Subversion

eclipse

Eclipse is an extensible IDE, with bundles available for development in several different languages. Because so many of your classes at Temple use Java, what you'd probably want is the Eclipse IDE for Java Developers, which you can get from the Eclipse download page. For C development, you can then install the CDT plugin, following the instructions given here. Nice instructions for setting up the CDT on Windows, Linux, and Mac, as well as solutions for common problems, may be found Max Berger's site. The CDT wiki also has some useful information.

tar, gz, zip, bzip

A short page on archiving and compression.

C

- King, C Progamming: A Modern Approach, Second Edition. Norton. If you find Kernighan and Ritchie too campact and fast paced, this might be the book for you.
- Learning C from Java
- pointers and memory
- GNU C library manual. This is a nice (and free) reference to the C library available to you on cis-linux2. You'll find some practical advice and sample code.

assembly

- Carter, PC Assembly Language. This book offers another nice treatment of much of the material that we cover in this class. The assembly examples are written for the NASM assembler, while we're using GNU gas. The highlights of the differences are written in this article on IBM Developerworks, which can be a pretty useful site.
- Bartlett, Programming from the Ground Up. This is a great introductory book covering some of the same material in chapters 2 and 3 of Bryant and O'Hallaron. A free online version is available. Local copy (pdf).
- GNU as manual
- Intel developers manuals

other reading

In addition to the official texts from the syllabus, you might find these helpful:

- Dr. Bob's Reference Card (pdf). Sleep with this under your pillow. Better yet, carry it around with you and read it as often as you can.