CS16, Winter 2010

lab00: ("lab zero")
Orientation to CSIL, the Cooper Lab,
and submitting assignments via the turnin program.

Goals for this lab

By the time you have completed this lab, you should be able to

- use the computers in both the CSIL and the Cooper labs to do basic things
- perform basic management of directories and files
- know how to submit assignments in this class with the "turnin" program.

That's a bit general, so let's get more specific...

- Use the computers in both the CSIL and the Cooper labs
  - Know where the CSIL lab is located *(in Harold Frank Hall, on the side of the building closest to the ocean, outside the glass double doors)*
  - Know where the Cooper lab is *(ground floor of the Engineering Science Building, room ESB1003, at the corner of campus closest to the airport.)*
  - Be able to login with your "CSIL account" *(This the same as your "College of Engineering account"the one you created at https://accounts.engr.ucsb.edu/create. It is a special username/password used with the computers that are set aside for College of Engineering classes)*
  - Be able to find the web browser on those computers *(Firefox)*
  - Be able to find the command prompt on those computers *(also known as the **Unix prompt**)*
  - Be able to log out of those computers
- Basic management of directories and files
  - Be able to create subdirectories under your "home directory" on those computers *("directory" is another name for what is often called a "Folder" in the Windows and Mac operating systems)*
  - Be able to use a text editor to make changes to files *(We encourage the use of emacs or vim, but there are other options.)*
  - Be able to copy a program into your directory from the course website. (*This can be done by "save as" in a web browser, or with a direct cp command at the Unix command prompt.)*
- Run a C program copied from the instructor's account *(see instructions below for details.)*
- Know how to submit assignments in this class with the "turnin program"
  - This requires bringing up a terminal window, possibly ssh'ing into CSIL *(We'll explain all this in more detail later on this web page)*
  - It also requires knowing how to use the cd command at the Unix prompt to get into the correct directory
  - Finally, you need the correct form of the turnin command

This assignment is designed to make sure you are comfortable working in the Cooper Lab/CSIL environment and know how to submit your work. So, this lab is mostly about mechanics, not concepts. As a result, this assignment is not particularly intellectually challenging. I hope that will not be the case in future labs!

Step by Step Instructions

Step 0: If you haven't created your College of Engineering Account", do so now.

Ideally, before this lab begins, you will have been instructed to visit the link below, and create your "College of Engineering" computer account:

- https://accounts.engr.ucsb.edu/create/

If you already did that, then wonderful! Proceed to step 1.

Otherwise, if you've arrived at your lab session without having already done this:

- Your TA can log on to one of the machines, and provide a web browser for you to use to fill out the form to create the account.
- Once you create the account, it may take several minutes before the account is active. So you may like to ask one of your classmates if you can look on with him or her for 5-10 minutes while you wait.
- Once you've created the account, and waited 5-10 minutes, try moving on to Step 1.

If it doesn't work

If you try to create a College of Engineering account, and it doesn't work, then send email to support@cs.ucsb.edu. In your email,

- cc your instructor and your TA on the email.
- Indicate that you are enrolled in CS16
- Indicate that you tried the form at https://accounts.engr.ucsb.edu/create/ and it didn't work.
- Provide your full name, perm number and your UCSB "umail" email address.
- Tell them approximately when you enrolled in the class on GOLD—not the exact day/time, just whether it was "weeks ago","a few days ago", "yesterday", "this morning" or "about an hour ago" is all they need to know.

Note that *if you are not enrolled in the course on GOLD*, you normally cannot get a College of Engineering account—if there is some problem with your GOLD registration, but you still need to start the work in the course speak with your instructor about this.

Step 1: Locate a computer in CSIL or Cooper lab

The purpose of this lab is to orient you to the computers in CSIL and Cooper.

So while, in future weeks, you may be able to do *some* of your work on your own PC, Mac or Linux computer, this particular lab must be completed in Cooper or CSIL.

- Cooper Lab is where your weekly Lab sessions (discussion sections) will be held.
- Cooper Lab is only available during your weekly scheduled discussion section—it is not open for your use at other times.
- At other times during the week, you can work in CSIL, the "Computer Science Instructional Lab".
  - During the regular Fall, Winter and Spring quarters, CSIL is generally open Sun-Thu, 8:30am-2am and Fri-Sat 8:30am-midnight.
  - During the summer sessions, CSIL is open 8:30am-5:30pm Monday through Friday.

Finding Cooper Lab: Cooper Lab is located in the Engineering Science Building, room ESB1003. ESB is located at the corner of campus closest to the airport, furthest away from Isla Vista. ESB is divided into two parts, with a pedestrian bridge overhead. ESB1003 is in the part of the building closest to the bike path. The door to ESB1003 is on the ground floor, at the corner of that faces the airport.

Finding CSIL: CSIL is located in Harold Frank Hall (HFH). You enter from an outside door. To locate CSIL, find the "main front entrance" to Harold Frank Hall, on the side of the building that faces the ocean. Stand *outside* the double glass doors, with your *back* to the building, *facing the ocean*. The entrance to CSIL is now on your *left*.

Step 2: Logging on

When you sit down at a terminal in CSIL or Cooper lab, you'll see a prompt that asks you for your username. Enter the username that you created for your College of Engineering computer account. This is probably the same as your UCSBNetID (your umail account), unless you specified something different when you created your account.

When you are asked for a password, enter the password you chose for your College of Engineering account (which is not necessarily the same as your umail password.)

Don't worry if nothing appears on the screen while you are typing your password.

- As you type your password, you might be used to seeing little dots or stars pop up.
- On the systems in Cooper and CSIL, this doesn't happen.
- Your password is still being accepted—just have faith, and type away.
- When finished, hit the "enter" key or the "return" key—which ever one appears on your keyboard.

You should find that your username and password are accepted, and you get a "desktop" that looks similar to the Windows or Mac OS desktop. In fact, what you get is neither—the systems in Cooper and CSIL use "Linux", which is a different operating system.

In the rest of this lab, we'll walk you through a few of the basics of using this desktop. Most things, though will likely be pretty familiar to you, because they aren't that different from Windows or Mac.

If you got in, move on to Step 3.

If your username/password don't work

If your username/password isn't accepted then:

- If you just created your College of Engineering account, wait 15-20 minutes and try again.
- If you created your College of Engineering account more than 15-20 minutes ago, then:
  - cc your instructor and your TA on the email.
  - Indicate that you are enrolled in CS16
  - Indicate that created an account at https://accounts.engr.ucsb.edu/create/ but you were not able to log in
  - Indicate whether you were trying to login in Cooper, or in CSIL at the time you had the problem
  - Provide your full name, perm number, UCSB "umail" email address, and the username you were trying to use.
  - Tell them approximately when you enrolled in the class on GOLD—not the exact day/time, just whether it was "weeks ago","a few days ago", "yesterday", "this morning" or "about an hour ago" is all they need to know.

Note: DO NOT include your password in your email to support. In fact, NEVER send your password through email, and NEVER tell anyone else your password, not even the support staff. Real support staff will NEVER ASK YOU FOR YOUR PASSWORD—not over email, and not in person. They won't need it to help you.
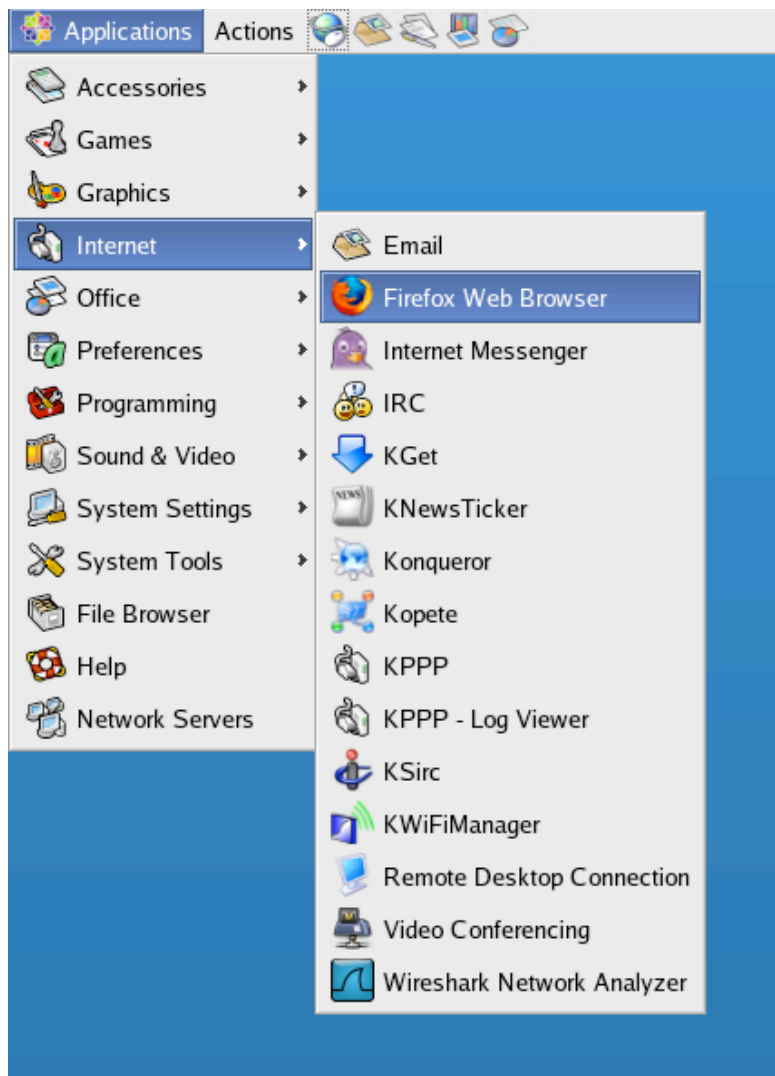
If someone is asking for your password over email, it is a scam called a "phishing attack"—don't be fooled by these dastardly villains.

Step 3: Bring up a web browser

To bring up a web browser:

- Use your mouse and find the Applications Menu at the top left of the screen.
- Select Internet, then Firefox
- Wait a few seconds, then Firefox should appear

Here's what selecting the menu looks like:

Step 4: Find these instructions online

You should now be able to find these instructions online at this link:

- http://www.cs.ucsb.edu/~pconrad/cs16/09F/labs/lab00

Note that the ~ symbol (called "tilde", or "squiggle") in front of pconrad is located at the upper left hand corner of the keyboard—and it requires a shift, otherwise you'll get ` which is called the "backtick".

If you received a paper copy of these instructions, this is where the printed copy will end—to save paper, the rest of the instructions can be found online.

Step 5: Bringing up a terminal window

On the Linux systems, there a lot of things we can do with pointing and clicking with the mouse, just like on Windows or Mac. But there are also many things we can only do with the command line, or can do more easily with the command line.

So, one of the first steps will often be to bring up a "Terminal Window", which is the Linux "command line".

Here's how: