CS 5045 – Computation for the Life Sciences
Fall 2003

Homework 01
August 26, 2003

Create your Linux account

Go to http://www.cslab.vt.edu/, click on "Account Maintenance", then on
"Create Account", and follow the instructions. You will create for yourself
an account on the undergraduate CS lab located in 124 McBryde.

The list of machine names available is given at http://www.cslab.vt.edu/124.shtml
(available from the FAQ). You should be able to ssh to any of those machines
from outside the lab.

Using your Linux account

Log into your account. Create a directory Homework, with a subdirectory
Hw01. Go to this new directory.

See who you are using whoami and the machine name using hostname.
Make a list of all users currently using the machine using who. The command
will return the answer on the screen. In order to send the answer to a file
you can

\[ \text{command} > \text{filename} \]

For example typing

\[ \text{who} > \text{users.txt} \]

will write the output of who into the file users.txt Note that the suffix .txt
tells us this is a text, or ASCII, file. You can view the content of this file on
the screen using *cat*

    cat users.txt

Explore the Linux filesystem using *cd* and *ls*. Type

    ls /

to see the directories under the root. The directories have standard names and their content is briefly explained in the handout.

Copy the content of the file `/etc/passwd` to a file `passwordfile.txt` in your directory using

    cat /etc/passwd > passwordfile.txt

This contains information about the accounts (with the passwords being encrypted, of course). Explore the content of this file.

Print out a list of all processes running on the machine. Use *man ps* to familiarize yourself with the command line options of *ls*. For example use *ps -ax* and redirect the output to a file procs.txt

    ps -ax > procs.txt

The command *printenv* will print all environment variables declared and their values. You can see the values of an individual environment variable using the *echo* command, for example

    echo $PATH

**What to submit**

In you directory Homework/Hw01 make the files with the 1) list of users on the machine, 2) list of all processes, 3) list of all environment variables. Submit printouts of these files.