

Homework 1

1. **Options:** one may use any of the workstations in the Unix lab (3rd floor Pangborn). Alternatively, you may wish to build a dual-boot system on your laptop (ie. one which gives you the choice of bringing up Linux or Windows). The Lab has Ubuntu; you may wish to download a copy of Ubuntu using <http://www.ubuntu.com/desktop/get-ubuntu/download>.
2. **vim:** Use the command `vimtutor` to learn the vim editor. This will take you through a tutoring session. Please try it out at a workstation. I expect occasionally to be showing you features of vim that are in addition to the basic commands described in “tutor”. I expect everyone will end up with a working knowledge of the vi editor by the end of the semester. Those of you who know emacs may skip this step (and so may those of you who already know how to use vim).
3. **vacuum:** Write a shell script (don't forget the `#!/bin/ksh`), let's call it `vacuum`, in your “HW01” subdirectory. First, the vacuum: `\==<` when its going from left to right, and `>==/` when its going from right to left. Your shell script should run a loop that initializes an array `L2R` (say with 80 entries) that has contents like

```
\==<
 \==<
  \==<
```

and another array, `R2L`, that has contents like

```
>==/
>==/
>==/
```

Alternately use these two arrays in a loop; also use the `clear` command and an appropriate number of carriage returns to make the vacuum cleaner go back and forth across the screen at least ten times, going down one line on each sweep. When done, it should emit the string `(BURP)!!!` and terminate.

You'll also want to read `HW01.notes` .

4. **E-mail** a copy of your homework (ie. your `vacuum` script) to me: drchip@campbellfamily.biz. Please don't send object files and/or executables