

The **Loh**-Down on Athena

Po-Ling Loh, RSI 2007

In our first-week classes on Athena (6/25) and LaTeX (6/26), Andy Kositsky and I mentioned some important information that either wasn't included in the lecture slides or could have been emphasized more. Here's a short summary of the **essential** commands you ought to have at your fingertips when working with the computers this summer, regardless of whether or not you're planning to use Linux or LaTeX in the future.

1 Athena

During RSI, you probably won't have the need to run fancy Linux commands (unless you're one of those computer gurus). But you definitely need to be familiar with the following:

- **Moving from one directory to another.**

When you first log into Athena, you'll begin in the "home" directory, also known as `~`. You'll see the command line "`(~) athena%`" in your terminal, which means you're in the home directory.

By typing "`ls`" you can list the contents of your directory.

By typing "`cd dir`" you can move into the (hypothetical) directory `dir` which is contained in your current directory (and appears under `ls` as `dir/`). You can move up a directory by typing "`cd ..`".

If you're ever lost, you can find your way back home by typing "`cd ~`". You can also jump to any directory by typing "`cd ~/dir1/dir2/dir3`" (for instance, to go to `dir3/`, which is in `dir2/`, which is in `dir1/`, which is in the `~` directory).

As you navigate between directories, you can keep track of where you are by looking at the contents of the parentheses to the left of "`athena%`" in the command line. You can also type the command "`pwd`".

- **Copying files.**

Copying files is easy, once you know how to navigate between directories. The general format is "`cp file.tex newfile.tex`," which

makes a copy of the file `file.tex` and names it `newfile.tex`. You can do this to copy files within a directory. Alternatively, you can copy a file from one location, say `~/dir1/dir2/file.tex`, to another location, say `~/dir3/dir4/newfile.tex`, by typing the command `cp ~/dir1/dir2/file.tex ~/dir3/dir4/newfile.tex`. If the file `newfile.tex` already exists, it will be replaced by a copy of `file.tex`; if it does not exist, a copy of `file.tex` named `newfile.tex` will be created.

- **Renaming files.**

In order to rename a file, you use the `mv` (move) command. It works exactly like the `cp` command, but does not leave a copy of the old file. So typing `mv ~/dir1/dir2/file.tex ~/dir3/dir4/newfile.tex` would effectively replace the file `file.tex` by `newfile.tex`.

- **Deleting files.**

You can delete files with the `rm` (remove) command. You simply navigate to the directory containing the desired `file.tex`, and type “`rm file.tex`”.

- **Creating directories.**

If you want to create the directory `newdir/` inside the directory `olddir/`, navigate to `olddir/` and type “`mkdir newdir`” (make directory `newdir`). It may be a good idea to check if you actually created the directory after typing the command; inside the directory `olddir/`, type `ls` and see if the directory `newdir/` is listed.

- **Removing directories.**

If you want to delete the directory `newdir/`, you can navigate to the directory which contains it (say, `olddir/`) and type `rmdir newdir/` (remove directory `newdir/`). However, this command only works if `newdir/` is empty. If `newdir/` is **not** empty, type `rm -r newdir` inside `olddir/`. (You may have to type “yes” several times.)