

## CSC 351 -- Lab 1 – January 14, 2015

### Introduction to ptolemy.canisius.edu, linux, and language resources

**Due:** January 20, 2015 midnight  
**What:** script file of run (1 file only) run of programs in the order given  
This must be text file with a .txt extension  
**Where:** D2L dropbox in Lab1 area

Ptolemy is the Computer Science Department server. It runs RedHat Linux and hosts departmental web pages and files. There are a number of computer language compilers and interpreters on ptolemy.

0. Log into Ptolemy using your name and password. If you have a new account OR if your password is not strong you should change it IMMEDIATELY using the `passwd` command.

To log into Ptolemy from a windows machine, use the PuTTY client. To log into Ptolemy from a mac, use ssh at the command prompt (or other GUI client):

```
ssh -l loginname ptolemy
```

If you are logging in from OFF CAMPUS you must give the full internet name for Ptolemy, which is:

```
ptolemy.canisius.edu
```

1. Start a script file by typing `script`
2. See what files are in your account by typing `ls`
3. Create a new directory for this course called `csc351` – `mkdir csc351`
4. Go into that directory using `cd` – `cd csc351`
5. Create a new directory for lab1 in here called `lab1` – `mkdir lab1`
6. Go into that directory using `cd` – `cd lab1`
7. Copy the programs for lab into this directory –  

```
cp ~burhans/CSC351/lab1/*.* .
```
8. Check to make sure the files are there using `ls`
9. Run each of the programs in turn by first looking at it using the `less` command to see how to do that – after each run check to see if any new files have been created – use `ls -l` to see not only file names but creation dates and times (the minus “el” (lower case letter el) option provides a LISTING of files with additional information about the files.

To view a readable file using the `less` command, type `less filename` – e.g.,

```
less echo.bash
```

Move ahead one page by pressing the space bar, you can access help by typing lower case `h` inside of `less` for all options. To get out of `less` type a lower case `q`. Scroll up using `k`, scroll down using `j`.

Instructions are included in the **program comments** in each of the programs about how to run the program.

**Programs:**

echo.bash  
echo.c  
echo.cl  
echo.cpp  
Echo.java  
echo.pl  
echo.pro  
echo.py  
echo.rb

FOR EACH PROGRAM YOU RUN fill in the lab sheet – you will hand this in.

WHEN you are done with your current Ptolemy session MAKE SURE YOU ARE NOT RUNNING ANY PROCESSES other than `bash` and `ps`. To see your processes type `ps`

If you have other processes running that should not be running you need to KILL them using their PIDs (process ID numbers) – those are displayed when you run `ps`.

```
kill -9 PID
```

10. BEFORE YOU LOG OUT stop the script program by typing `^d` (the `^` is the control key, you need to hold it down and press the other key while holding it down, e.g. the `d` key)

This will create a file called `typescript` – please rename this file to `lab11.txt`,

This is the file you will submit. If you are NOT DONE YET with the exercises you will create another script file when you continue the assignment. When done, save that with another name so as not to overwrite the old one.

When you are done and ready to submit your file, concatenate the files together into one file using `cat`. For example:

```
cat lab11.txt lab12.txt lab13.txt lab14.txt ... > xxxlab1.txt
```

**where instead `xxx` of you put YOUR INITIALS.**

11. Finally, submit this text file to D2L – there is a dropbox there for this file. How do you get it off of Ptolemy??? You can copy it using `scp` – easy to do from the macs in our labs. There are other `scp` clients too, e.g. you can install an `ssh/scp` client into firefox. E.g.

```
scp burhans@ptolemy:./.../filename.ext .
```

This would copy it to a file with the SAME NAME since no name is given, just the DOT (period character) – to give it a different name type that name instead of `.`

```
scp burhans@ptolemy:./.../filename.ext NEWfilename.ext
```