

**MORE LINUX**

# FILE PERMISSIONS (CH04)

- 3 types of users:
  - owner - owner of the file
  - group - members of group associated with file
  - other - everyone else
- 3 types of access:
  - read
  - write
  - execute

# FILE PERMISSIONS (CONT.)

- See current permissions: `ls -l`
  - char 0 = filetype
  - chars 1-9 = file permissions
  - then ACL flag, # links, owner, group, size, mod date, and filename
- 3 characters for each of owner, group, other
  - specify read, write, execute permission
  - Example: '-rwx-----' means only owner can do anything

# FILE PERMISSIONS - HOW TO CHANGE?

- `chmod` command
  - `+` = add permission
  - `-` = remove permission
  - Ex: ``chmod g+x, o+x'`
- Numerical shortcut: (sum to get combo)
  - 4 = read
  - 2 = write
  - 1 = execute

# ENVIRONMENT VARIABLES

- PATH - where the shell looks for programs
- To modify:
  - Open `~/ .bashrc`
  - add `export PATH="newpath:$PATH"`
  - adds newpath to the beginning of path
  - Open up `~/ .bash_profile` -- look for a line with `.bashrc`
- Path is searched in order listed

# WHO CARES?

- Can be important anytime you install software
- What if you want to install software on eos?
- Install from source
  - install anywhere under your home directory
  - modify PATH to put your install location first
- Example -- sl

# PROCESSES (CH08)

- process = execution of command by linux kernel
- `ps` lists process, `ps -f` lists more info
- `top` interactive listing
- PID = process id #
- PPID = process parent id #

## PROCESSES (CONT.)

- Running command takes over shell until finished
- What if you want control back
- Run in background (&)
- Ex: `sleep 100 &`



## PROCESSES (CONT.)

- Ctrl-c kills running process, Ctrl z suspends
- How to kill suspended (or one in background)?
  - `kill pid - graceful`
  - `kill -9 pid - kill now`
- `jobs` shows status
- `bg %` and `fg %` can be used to restart suspended