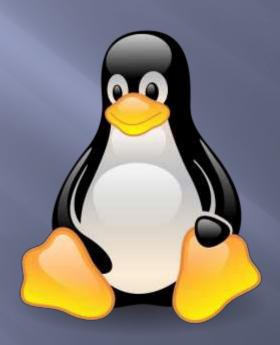
# The Shell & Navigating Linux



## Agenda

- What is the shell
- Directory Structure
- Moving around in the shell
- Some tweaks and shortcuts

## What is the Shell

- The shell accepts human readable commands and translates them into something the kernel can read and process.
- Is a user program or it is an environment provided for user interaction.
- It is a command language interpreter that executes commands read from the standard input device such as keyboard or from a file.
- The shell gets started when you log in or open a console (terminal).
- Quick and dirty way to execute utilities.
- The shell is not part of system kernel, but uses the system kernel to execute programs, create files etc.

## Shells Cont'd

- Several shells are available for Linux including:
  - BASH (Bourne-Again SHell ) Most common shell in Linux. It's Open Source.
  - CSH (C SHell) The C shell's syntax and usage are very similar to the C programming language.
  - KSH (Korn SHell) Created by David Korn at AT & T Bell Labs. The Korn Shell also was the base for the POSIX Shell standard specifications.
  - TCSH It is an enhanced but completely compatible version of the Berkeley UNIX C shell (CSH).

### Shells Cont'd

- Please note that each shell does the same job, but each:
  - understands different command syntax
  - provides different built-in functions.
- Under MS-DOS, the shell name is COMMAND.COM which is also used for the same purpose
  - it is by far not as powerful as our Linux Shells are!

• How to find out what shell you are using ps-p \$\$

```
[dbecker@localhost ~]$ ps -p $$
PID TTY TIME CMD
4054 pts/0 00:00:00 bash
[dbecker@localhost ~]$
```

## Linux Directory Structure

#### The Main ones

	Primary hierarchy <b>root</b> and root directory of the entire file system hierarchy.
/bin	Essential command binaries that need to be available in single user mode; for all users, e.g., cat, ls, cp.
/boot	Boot loader files, e.g., kernels, initrd.
/home	Users' home directories, containing saved files, personal settings, etc.
/root	Home directory for the root user
/etc	Host-specific system-wide configuration files

## Moving around in the file system via the shell.

cd	<ul> <li>Change directory – needs an argument</li> <li>Also gets you back to your home dir</li> </ul>
cd	Change directory up one level
cd /etc	<ul> <li>Change to the etc directory</li> <li>go up to root dir and then down to etc</li> </ul>
cd Documents	<ul><li>Change to the Documents directory</li><li>Just down to the Documents dir</li></ul>

## Linux Command structure

Command –options argument(s)

```
ls -la /etc
```

## A couple Shortcuts

- In Vmware Ctrl-Alt-Enter makes VM full screen
- Create a shortcut to Terminal
  - Applications->System Tools->Settings>Keyboard
  - Scroll to the bottom of the shortcuts & hit the +
  - Type Open Terminal for Name
  - Type gnome-terminal for Command
  - Click Edit to add the shortcut (buttons and text will gray out, but nothing else will happen)
  - Press Ctrl-Alt-T
  - Click the Add button
  - If it does not work immediately you may need to restart

Cancel Add Custom Shortcut Add Name Open Terminal Command gnome-terminal Shortcut Ctrl Alt Edit

## Copy just an area of the screen

- Ctrl-Shift-PrtScrn
  - Select the area that you want to copy
  - It copies to the clipboard,
  - You can then paste it directly into the cell in the Lab.

## Change Focus

- The book mentions changing the focus to make the window that the mouse is in the on "in focus"
  - Applications->utilities->tweak tool
  - Windows Tab
  - Choose Mouse for Focus Mode

 Look around to see if there is anything else you would like to change for the better

