

Introduction to Linux, I

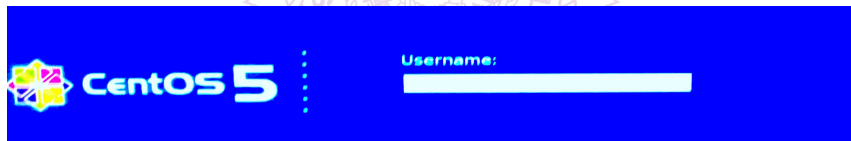
EE231002 Introduction to Programming

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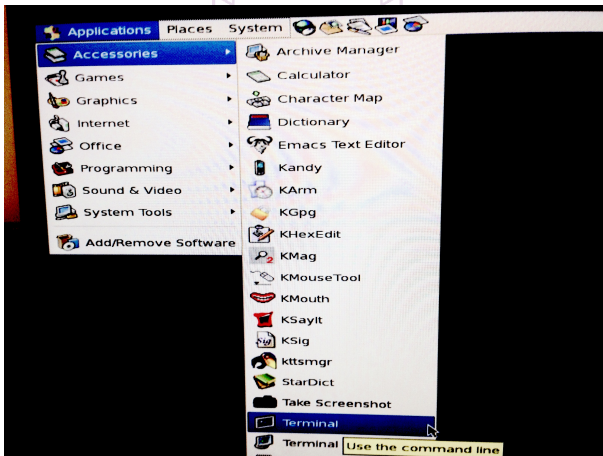
Login to EE Workstations

- To login to EE workstations
 - Type in your account and password
 - Username: **u** + **ID**
 - Password should have been mailed to you
 - Password will not shown while you are typing in



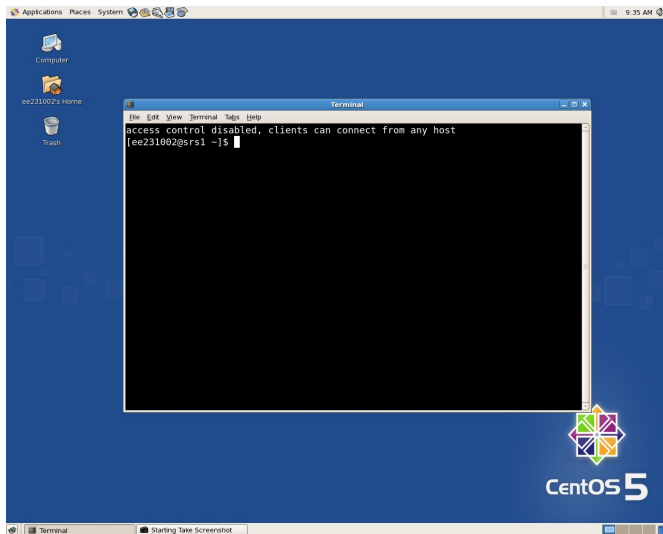
Open a Terminal

- To open a terminal, use the **Applications** menu on the top-left corner
 - **Applications -> Accessories -> Terminal**



Open a Terminal, II

- A **terminal** accepts and processes commands
 - Multiple terminals can be opened



Change Password

- To change password: `yppasswd`
 - Type in the original password

```
michang — ssh ee231002@140.114.24.112 — 80x24
[ee231002@ws38 ~]$ yppasswd
Changing NIS account information for ee231002 on brontosaur.
Please enter old password: [ ]
```

- Type in a new password twice

```
michang — ssh ee231002@140.114.24.112 — 80x24
[ee231002@ws38 ~]$ yppasswd
Changing NIS account information for ee231002 on brontosaur.
Please enter old password:
Changing NIS password for ee231002 on brontosaur.
Please enter new password:
Please retype new password: [ ]
```

- Choose a password that is easy to remember and difficult to break

```
michang — ssh ee231002@140.114.24.112 — 80x24
[ee231002@ws38 ~]$ yppasswd
Changing NIS account information for ee231002 on brontosaur.
Please enter old password:
Changing NIS password for ee231002 on brontosaur.
Please enter new password:
Please retype new password:

The NIS password has been changed on brontosaur.

[ee231002@ws38 ~]$ [ ]
```

First Few Commands

- At this time, please type in the following commands

```
$ cp ~ee2310/.vimrc .  
$ mkdir c_program  
$ cd c_program  
$ mkdir lab01  
$ cd lab01  
$ cp ~ee2310/lab01/* .  
$ kpdf linux1.pdf &  
$ kpdf vim1.pdf &  
$ kpdf lab01.pdf &
```

Directory

- Linux's file system consists of directories, like folders, and simple files
- `pwd`: print working directory

```
[u102061251@ws38 ~]$ pwd
/home/u102/u102061251
```

- `ls`: list directory content

```
[u102061251@ws38 ~]$ ls
Desktop  c_language  hspice  hw10_1  notes  sxcmd.log  yes
a.out   circuit_lab  hw01.pdf  m8.dat  numerical_analysis  testfile  yes.pub
```

Directory – Create Directory

- `mkdir`: make directory

```
[u102061251@ws38 ~/test]$ ls
[u102061251@ws38 ~/test]$ mkdir burbur
[u102061251@ws38 ~/test]$ ls
burbur
```

- `cd`: change directory

```
[u102061251@ws38 ~/test]$ ls
burbur
[u102061251@ws38 ~/test]$ pwd
/home/u102/u102061251/test
[u102061251@ws38 ~/test]$ cd burbur
[u102061251@ws38 burbur]$ pwd
/home/u102/u102061251/test/burbur
```

- `rmdir`: remove directory

```
[u102061251@ws38 ~/test]$ ls
burbur
[u102061251@ws38 ~/test]$ rmdir burbur
[u102061251@ws38 ~/test]$ ls
```


Directory – Copy

- General linux command format
`COMMAND [OPTION1] [OPTION2] [ARGUMENT1] [ARGUMENT2] ...`
- `cp`: copy files and directories
 - Format: `cp SOURCE ... DIRECTORY`
 - Purpose: copy SOURCE or multiple SOURCE(s) to DIRECTORY

```
[u102061251@ws38 ~/test]$ ls
bur.c burbur
[u102061251@ws38 ~/test]$ ls burbur/
[u102061251@ws38 ~/test]$ cp bur.c burbur/bur2.c
[u102061251@ws38 ~/test]$ ls
bur.c burbur
[u102061251@ws38 ~/test]$ ls burbur/
bur2.c
```

Directory – Move

- **mv**: move files and directories
 - Format: **mv SOURCE DIRECTORY**
 - Purpose: move SOURCE to DIRECTORY

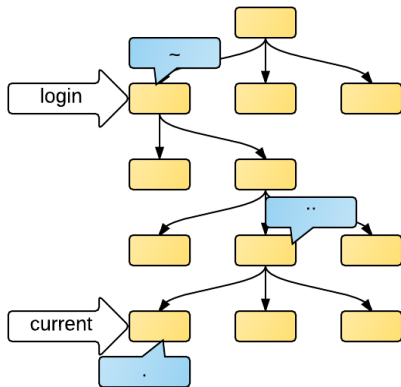
```
[u102061251@ws38 ~/test]$ ls
bur.c burbur
[u102061251@ws38 ~/test]$ mv bur.c burbur/
[u102061251@ws38 ~/test]$ ls
burbur
[u102061251@ws38 ~/test]$ ls burbur/
bur.c
```

- Special usage – Rename file

Special Directories

- Linux file structure

- : current directory
- : directory one-level up
- : home directory



Special Directories – Examples

```
[u102061251@ws38 burbur]$ pwd
/home/u102/u102061251/test/burbur
[u102061251@ws38 burbur]$ cd .
[u102061251@ws38 burbur]$ pwd
/home/u102/u102061251/test/burbur
[u102061251@ws38 burbur]$ cd ..
[u102061251@ws38 ~/test]$ pwd
/home/u102/u102061251/test
```

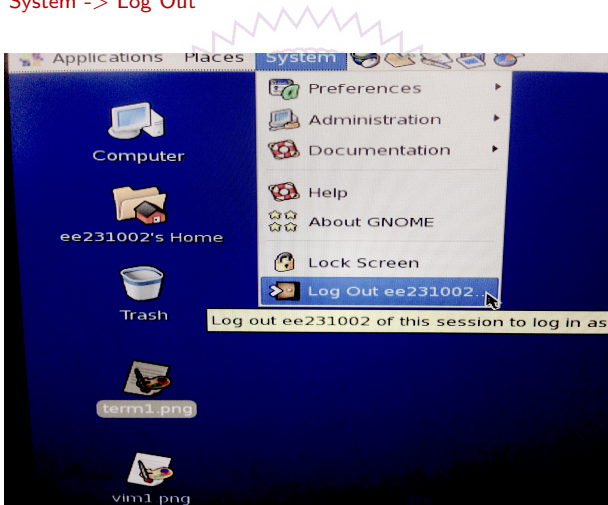
```
[u102061251@ws38 burbur]$ pwd
/home/u102/u102061251/test/burbur
[u102061251@ws38 burbur]$ cd ~
[u102061251@ws38 ~]$ pwd
/home/u102/u102061251
```

Command Summary

| Command | Usage | Comments |
|----------|----------------|--|
| yppasswd | yppasswd | Change password. |
| mkdir | mkdir dir | Create a directory <code>dir</code> . |
| cd | cd dir | Change to directory <code>dir</code> . |
| pwd | pwd | Show current working directory. |
| ls | ls | List current directory. |
| rmdir | rmdir dir | Remove directory <code>dir</code> . |
| rm | rm file | Remove file <code>file</code> . |
| cp | cp file1 file2 | Copy <code>file1</code> to <code>file2</code> . |
| | cp file dir | Copy <code>file</code> to directory <code>dir</code> . |
| mv | mv file1 file2 | Rename <code>file1</code> to <code>file2</code> . |
| | mv file dir | Move <code>file</code> to directory <code>dir</code> . |

Logout

- Please make sure to logout of the workstation after class
 - Use the menu on the top of the screen.
 - System -> Log Out



- 使用規則

1. 嚴禁關閉工作站電源。
2. 請勿攜帶飲料、食物進入。
3. 離開時請確實 logout，關閉螢幕電源，並將椅子靠好。
4. 當機時，請由別台工作站伺服器 login 至當掉的伺服器，然後將自己的 process 殺掉。
5. 重要資料請隨時自行備份。

