

## Tutorial/Lab Session 2

### PURPOSE:

1. To familiarize with PC and operating system.
2. To familiarize with a “text editor”

### PROCEDURE:

#### Practice 1: Boot-Up and Shut-Down The Operating System of PC

Step 1: Press <power> switch of the PC.

Step 2: Wait for the booting until the prompt “LILO boot:” appears.

Step 3: Type “linux” immediately and press <ENTER> key.

Step 4: Wait for the operating system to be loaded until a login prompt  
“xxxx login:” appears.

Step 5: Type “guest” and press <ENTER> (this will log you in as guest).

Step 6: Type “mkdir lab2” and press <ENTER>.  
(this will create a directory called lab2)

Step 7: Type “startx” and press <ENTER>.  
(this will start the X-Window environment)

Step 8: Activate the menu “Start” and choose the command  
“Exit Fvwm/Yes, Really Quit”.  
(this will exit the X-Window environment)

Step 9: (IMPORTANT) Press “CTL-ALT-DEL” to shutdown  
the operating system.

Step 10: When PC starts to re-boot, press <power> switch to turn off  
the PC.

NOTE: Repeat this practice until you are truly familiar with it.

Practice 2: Open “xterm” under X-window environment

xterm is a program that plays the role of interface between an user and the operating system. Under Windows, the equivalent is MSDOS-prompt. From xterm, users can issue commands to the operation system.

Step 1: Apply your skill learnt from Practice 1 to boot up the PC and enter X-Window environment. You will see a black window that is a xterm.

Step 2: Move the mouse so that the “mouse pointer” is within the background area of the screen.

Step 3: Press the left button of the mouse to pop up a menu.

Step 4: Select the command “New shell” and press the left button once. You will see another xterm appear.

NOTE: Repeat this practice until you are truly familiar with it.

CREATIVE WORK:

Try to apply this skill to open other applications other than xterm.

Practice 3: Use “emacs” editor to edit a ASCII file

A ASCII file is just a file encoded on ASCII that is human and computer readable. Under MSDOS-prompt, people uses the text editor called “edit” to open a ASCII file and modify its content. Under xterm prompt, you can use the text editor called “emacs” to open a ASCII file and modify its content.

Step 1: Move the “mouse pointer” inside one xterm and click once the left button. This makes this xterm active.

Step 2: Type “cd lab2” and press <ENTER> key.

(you should have done “mkdir lab2” in Practice 1). Now, you are in the directory called lab2.

Step 3: Type “emacs newfile.c” and press <ENTER> key. This launches the emacs with a new empty file named “newfile.c”.

Step 4: Now, key in the following content:

```
/*
-* This is my program: newfile.c
*/
#include <stdio.h>
#include <math.h>
#include <string.h>

main(int argc, char **argv)
{
    printf("\n> Hello, I am here !\n") ;
}
```

Step 5: From “Files” menu, choose “Save Buffer” to save the content to the file newfile.c (“buffer” means memory allocated for the file)

NOTE: Repeat this practice until you are truly familiar with it.

Practice 4: Use “emacs” to edit a ASCII file (further exercise)

After Practice 3, you continue with Practice 4:

Step 1: Apply your skill learnt from Practice 3 to edit a new file called “Makefile” and key in the following content:

Press <TAB> key  
to create this space

```
#  
# This is a Makefile  
#  
newfile: newfile.c  
         cc -c newfile.c  
         cc -o newfile newfile.o
```

Step 2: Move the “mouse pointer” to the xterm where you have launched the execution of “emacs”. And, press the left button once. This makes the xterm active.

Step 3: Press “Ctrl” and “Z” keys simultaneously. This will temporarily stop the “emacs”. Then, type “bg” and press <ENTER> key. This will activate the “emacs” running in the background.

Step 4: Type “make” and press <ENTER> key. Then, type “newfile” and press <ENTER> key. Observe what happens.

NOTE: Repeat this practice until you are truly familiar with it.

CREATIVE WORK:

Follow Practice 3 & 4, to create a program that displays the following message:  $3*5 = 15$