

Workstation Tutorial

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Outline

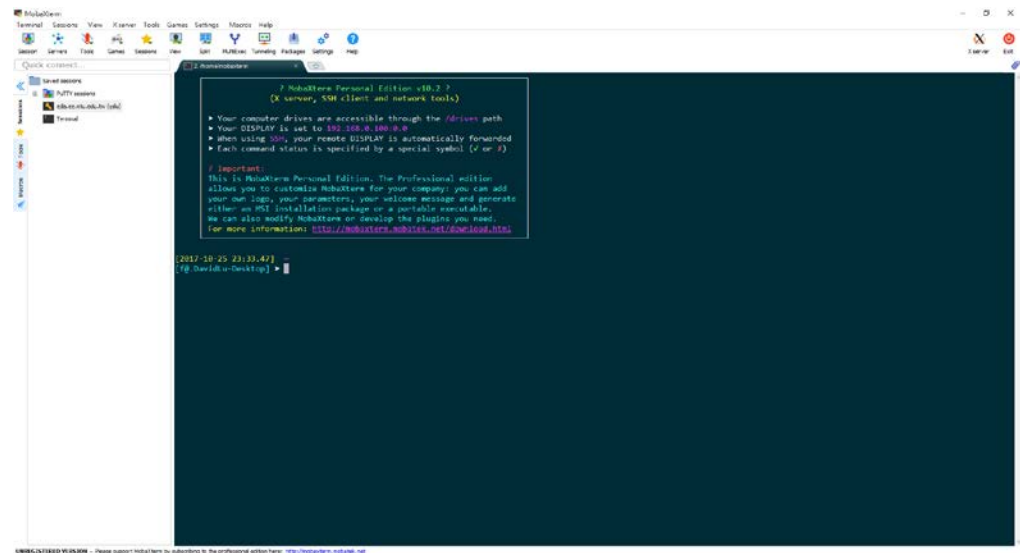
- EDAunion Workstation
- Bash Commands
- Compiler & Makefile
- Vim
- Online Resources

EDAunion Workstation

- Available server list:
 - http://edaunion.ee.ntu.edu.tw/ws_list.htm
- Student account
 - eda18+<number>
 - Ex: eda1866
- Login command
 - ssh <account>@edaunion.ee.ntu.edu.tw -p <port number>
 - Ex: ssh eda1866@edaunion.ee.ntu.edu.tw -p 40065

Terminal Consoles

- Windows
 - MobaXterm: <https://mobaxterm.mobatek.net/>
 - Putty: <http://www.putty.org/>
 - Pietty: <https://sites.google.com/view/pietty-project>
- Linux
 - Default terminal



Terminal Commands

- Commands you **MUST** know
 - `yppasswd` → change your password
 - `ls` → list the files under this location
 - `cd <dirname>` → enter the directory
 - `mkdir <dirname>` → create a new directory
 - `rm <file>` → remove the file
 - `mv <file> <destination>/.` → move the file to the destination
 - `tar zxvf [file.tgz]` → extract the files
 - ...

Compiler & Makefile

- Compiler

- Compile your program using “commands” instead of “buttons”
- g++, clang, ...
- Command: `g++ <file name> -o <program name>`
- Ex: `g++ -O3 main.cpp -std=c++11 -o PA1`

- Makefile

- Fast compile script for large and complex software
- Command: `make`, `make clean`

Vim

- A very powerful & elegant text editor on Linux OS
- Commands
 - Insertion mode, view mode, visual mode switching
 - Esc, i, v
 - Save & Quit
 - :w, :q, :wq, :q!
 - Copy & paste
 - yy, p

Online Resources

- Command line
 - Basic
 - http://linux.vbird.org/linux_basic/
 - Compress file
 - <http://note.drx.tw/2008/04/command.html>
 - Compiler & Makefile
 - <http://beyond-firmware.blogspot.tw/2014/12/c-compiler-g.html>
 - <http://www.laird.tw/2015/04/linux-c-ubuntu-c.html>
 - <https://dywang.csie.cyut.edu.tw/dywang/linuxProgram/node58.html>
 - http://www.csie.nuk.edu.tw/~kcf/course/97_Spring/Embedded%20System/8-Makefile.pdf
 - Vim:
 - http://linux.vbird.org/linux_basic/0310vi.php
- Reference book
 - C++ Primer, C++ Primer Plus, ...