

Getting Start

- For students does not have a login account or forgot your password, please check 217 TA during office hours.
- We have 20 linux machines, and the host name is “linux1.csie.ntu.edu.tw”, 1 can be replaced with 2~20.
- Note that linux15 is reserved for daily use.
DO NOT RUN COMPUTING-INTENSIVE JOBS!

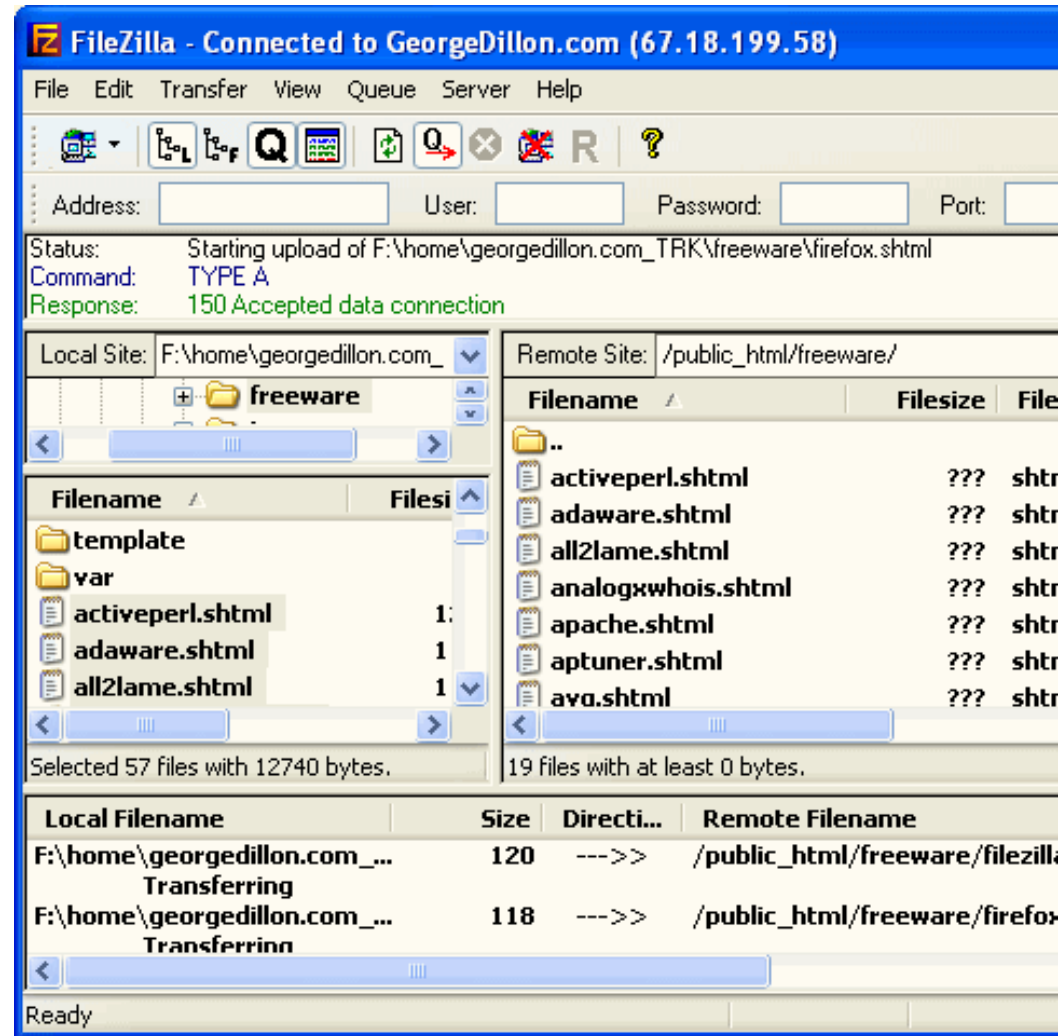
How to Login

- Pietty/Putty <http://ntu.csie.org/~piaip/pietty/>



How to Transmit Files

- FileZilla
 - Port 22
- wget
 - only for download



Linux Tips

- Tab is your good friend
- **cd** brings you home
- ./ means current directory
- ../ means parent directory
- / means root directory
- *
- <http://mrtg.csie.ntu.edu.tw/status.html>
- Network File System v.s Local File System

Basic Commands

- `man` Online manual
- `cd` Change directory
- `pwd` Present working directory
- `ls` List directory contents
- `cp` SOURCE DEST Copy files to directory
- `mkdir`
- `mv` SOURCE DEST Move or rename

- **rm** Remove(沒有資源回收桶,請小心)
- **rmdir**
- **cat, more, head, tail** Reading Files
- **du** Estimate file space usage
- **passwd** Change password

Running Jobs

- Process management:
 - **ps** 顯示 process 狀態
 - **top** 類似 ps 但提供動態的資訊更新
 - **kill** 刪掉正在執行的 process
 - **Ctrl + c** 中斷目前的命令
 - 背景執行：ctrl + z , bg , &
 - 按下 **Ctrl + z** 會暫停目前的命令
 - **bg** [jobspec] 會將暫停的命令放到背景執行
 - 輸入命令時在最後端補 **&** 符號，會直接在背景執行
 - **fg** 把背景執行的命令拉回前景

Vi / Vim

- Vi 是 linux 下常用的編輯器
 - 剛開檔時是指令模式
 - 在任何模式下按 `esc` 可回到指令模式
 - 按 `v` 可選取範圍，選完後按 `y` 是複製，`c` 是剪下，`p` 是貼上
 - `u` 是復原
 - 按 `:` 可輸入命令
 - `:q` 不存檔離開
 - `:q!` 強制不存檔離開
 - `:wq` 存檔離開
 - `:w` 存檔
 - 按 `i` 進入插字模式
 - 如果按到 `ctrl-s`，按 `ctrl-q` 它就死而復生

Compile and Makefile

- gcc / g++
 - Default output **a.out**, change by option “-o”
- Makefile/makefile
 - make
 - make run
 - make clean

檔案權限

- User, Group, Others
- Read(r), Write(w), Execution(x)
- Encoded as bit string.
 - rwx-rwx-rwx(777)
 - rwx--wx---- (750)
 - rwx----- (700)
- Protect your homework form plagiarism is your responsibility
- chmod 700 filename

Learn More by Yourself

- http://linux.vbird.org/linux_basic/
- <http://www.gnu.org/software/make/manual/make.html>
- <http://www.cplusplus.com/reference/>