

NYCU EE Workstation 415 Server User Guide

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Outline

- 415 SSH Connection
- Connect to Server: MobaXterm
- EDA Tool Notification
- FTP Data Upload/Download
- XRDP Remote Desktop



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工作站使用說明 Server Usage

- 使用原則 Policy

1. 每位學生帳號將會限制在**30G**用量
2. 今年新採購的伺服器為 **ee01~ee23** 歡迎多加使用

Only 30GB storage is provided for each student

New servers ee01~23 are encourage to use

- 使用技巧 Tips

1. 指令: **scheck** --> 查看所有伺服器狀態(挑狀態比較好的連線)
2. 指令: **htop** --> 查看當前伺服器的狀態
3. 指令: **quota -us [username]** --> 查看目前容量限制狀態

Use "scheck" command to get all available server's info

Use "htop" command to get this server's info

Use "quota" command to get usage of storage

- 違規行為 Rules

- ❑ 以下行為**使用者帳號將會立即取消**，並登記使用者資料**列入黑名單**

1. 將修課帳號借給他人使用，或借用他人帳號
2. 使用本實驗室電腦設備用於非課程教學用途
3. 破壞系統或實驗室設備，或任何影響系統運作的行為
4. 入侵系統或盜取、盜用他人帳號

You would be suspended right away and be in blacklist if you:

- (1) Borrow your account or borrow other's account
- (2) Unusual usage of server, especially not related to course
- (3) Destroy equipment or system on purpose
- (4) Stealing other's account or invading the system

- ❑ 以下行為**初犯帳號停權兩星期**，**累犯取消課程帳號**

1. 任意關閉或重開電腦及工作站(包含拔除主機電源)
2. 過量使用實驗室主機資源，影響其他人正常使用

You would be suspended for 2 weeks, or permanently if you:

- (1) Shut down or reboot server without permission
- (2) Over-usage of computational resources

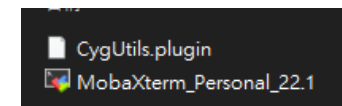
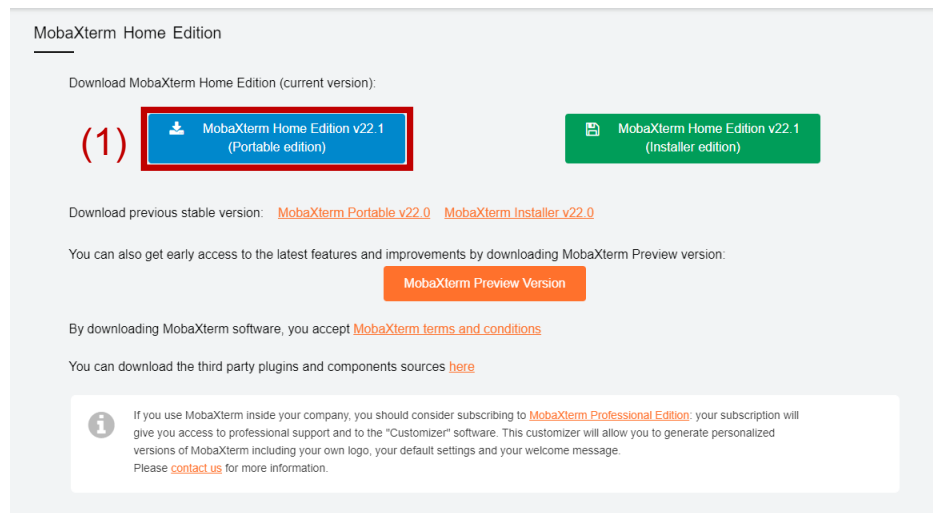
- ❑ 其他違規事宜，經個案討論認定違規者

Other serious violation would be punishment



工作站連線方式 MobaXterm

- 下載網址 Download website: <https://mobaxterm.mobatek.net/download-home-edition.html>
- 安裝 Install



(2) 雙擊 Double click



工作站連線資訊 Server Connection Information

- 可使用的工作站之IP Available Server IP

- ❑ ee{02~23,32}.ee.nctu.edu.tw

- E.g.: ee32.ee.nctu.edu.tw

- ❑ linux{02~32}.ee.nctu.edu.tw

- E.g.: linux02.ee.nctu.edu.tw

- ❑ **ee01與linux01為助教專用server** 請同學不要使用

- 學員帳號 Student Account

- ❑ vlsi{001~100}

- E.g.: vlsi001

- ❑ 學員請參考帳號對照表 [Link](#) 找到對應的帳號使用 Please refer to “Link” to find our your account

- 預設密碼 Default Password

- ❑ vlsi

- ❑ 首次登入後，請立即使用指令“**passwd**”更改密碼 Please change password right away with “passwd” command after your first login

- 注意事項 Notification

- ❑ 基於資安防護，本學期開始 SSH 僅開放 **Port 415** 連線
並且全部伺服器都須是交大IP 才可連線

- ❑ 若無交大IP，可連學校[VPN](#) 或是 **ee23** 伺服器

- ❑ FTP 服務: 開放阜口**ee23:13579** 傳遞資料

Port 415 is used for ssh connection to prevent network attack

Only NYCU IP could be connected to server, e.g. 140.113.xxx.xxx

Connect NYCU VPN server or ee23 server without NYCU IP

FTP service is provided on ee23 server with port 13579



Outline

- 415 SSH Connection
- **Connect to Server: MobaXterm**
- EDA Tool Notification
- FTP Data Upload/Download
- XRDP Remote Desktop



login

ssh ee17.ee.nctu.edu.tw -p415 -l iclab001

Hank/100

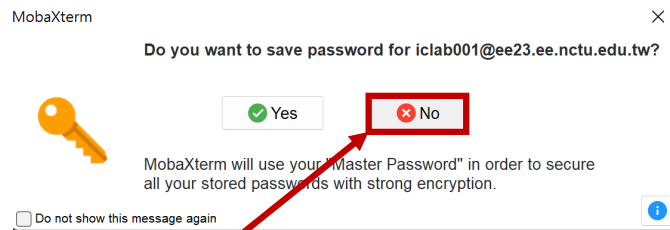
使用MobaXterm登入工作站 Connect to server with MobaXterm

The screenshot shows the MobaXterm 'Session settings' dialog box. The interface includes a sidebar on the left with 'Session' selected, and a main area with 'Basic SSH settings' and 'Advanced SSH settings' tabs. Red annotations and arrows indicate the following steps:

- (1) Click the 'Session' icon in the sidebar.
- (2) Click the 'SSH' icon in the 'Session settings' list.
- (3) Configure the 'Basic SSH settings' tab:
 - Remote host: `ee23.ee.nctu.edu.tw` (labeled 'Server IP')
 - Specify username: `iclab001` (labeled 'Student Account')
 - Port: `415` (labeled 'Port 415')
- (4) Click the 'OK' button.
- (5) Type your password in the terminal window that appears at the bottom, which shows the prompt `iclab001@ee23.ee.nctu.edu.tw's password:`.

Curved arrows indicate the flow from step (1) to (2) and from step (4) to the terminal window.

使用MobaXterm登入工作站 Connect to server with MobaXterm



(1) 為安全請選No
For safety "No"

(2) 確認伺服器狀態
Check server information

(3) 輸入 "yes"，將自動設置EDA環境
Type "yes" to source environment

```
• MobaXterm Personal Edition v22.1 •
(SSH client, X server and network tools)

> SSH session to iclab001@ee23.ee.nctu.edu.tw
• Direct SSH      : ✓
• SSH compression : ✓
• SSH-browser     : ✓
• X11-forwarding  : ✓ (remote display is forwarded through SSH)

> For more info, ctrl+click on help or visit our website.

Activate the web console with: systemctl enable --now cockpit.socket

Last login: Fri Sep  9 02:32:06 2022 from 140.113.125.107
=====
|           Welcome to ED415 Server System           |
=====
Check all server status:
'scheck' command
Hostname: :
ee23
CPU Model: :
12thGenIntel(R)Core(TM)i7-12700
Operating System:
CentOS Stream release 8
Memory Size:
62Gi
Server Manager:
Lin-Hung Lai (lh lai@ieee.org)
Eugene Lee (eugene@ieee.org)
Report Problem:
https://forms.gle/FNmZmyMdSb4XoU7fA
=====
>>> Are you sure to login? (type 'yes' to start)
=====
> yes
```

伺服器有問題可填表單回報
例如某個EDA Tool不能跑
Any problem related to server
can be reported by this form

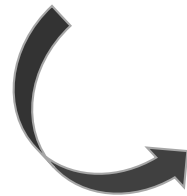


使用MobaXterm登入工作站 Connect to server with MobaXterm

列出全部可用EDA軟體

All the EDA tool would be listed

```
=====  
>>> Are you sure to login? (type 'yes' to start)  
=====  
> yes
```



成功登入進入此畫面

Successful login enter this

```
-----  
| CAD tools available on this machine (2022.03.13 updated) |  
-----  
| Cell-Based Design | Synopsys | Cadence |  
-----  
| Simulation | VCS_2020.12(vcs) | XCELIUM_20.09(xrun) |  
| | VERDI_2020.12(nWave) | INCISIV_15.20(irun) |  
| Synthesis | DC_2020.09(dc_shell) | GENUS_20.10(genus) |  
| Physical Design | ICC2_2020.09(icc2_shell) | INNOVUS_20.15(innovus) |  
| STA / Power | PT_2019.03(pt_shell) | JG_2021.03(jg) |  
| Formal | | |  
-----  
| Full-Custom Design | Synopsys | Cadence |  
-----  
| Simulation | HSP_2020.03(hspice) | |  
| | CEX_2020.12(cx,wv) | |  
| Layout | LAKER_2021.03(laker) | IC_06.17(virtuoso) |  
-----  
| Others | Siemens Calibre |  
| | Synopsys MetaWare Development Toolkit |  
| | Synopsys Tetra Max |  
| | Python3.6 |  
-----  
| License Server | 1717@lshc:5280@lshc:26585@lshc |  
-----  
| Useful Command: |  
| 1. quota -us [username] → check out your quota |  
| 2. passwd → change your password |  
| 3. htop → check out server usage |  
| 4. scheck → check available server usage |  
-----  
[iclab001@ee23 ~]$
```



使用MobaXterm登入工作站 Connect to server with MobaXterm

(2) 選擇最適合的伺服器連線

Choose server with the following priority:

- Newer CPU or Less CPU usage(%)
- Less memory usage(%)
- Larger memory
- Less users

```
=====
linux09  linux11  linux12  linux13  linux14  linux15
Users: 0  Users: 0  Users: 0  Users: 0  Users: 0  Users: 0
CPU : 0.0% CPU : 0.0% CPU : 0.0% CPU : 0.0% CPU : 3.8% CPU : 0.0%
Mem : 1.6% Mem : 1.7% Mem : 4.1% Mem : 3.4% Mem : 12.8% Mem : 3.4%
MUsed: 361M MUsed: 398M MUsed: 315M MUsed: 262M MUsed: 958M MUsed: 262M
MFree: 22G  MFree: 22G  MFree: 7.3G MFree: 7.4G MFree: 6.3G MFree: 7.4G

linux16  linux17  linux18  linux19  linux20  linux21
Users: 0  Users: 0  Users: 0  Users: 0  Users: 0  Users: 0
CPU : 0.0% CPU : 0.1% CPU : 0.0% CPU : 0.0% CPU : 0.0% CPU : 0.1%
Mem : 3.5% Mem : 3.5% Mem : 3.5% Mem : 3.9% Mem : 1.6% Mem : 2.8%
MUsed: 263M MUsed: 263M MUsed: 264M MUsed: 294M MUsed: 362M MUsed: 640M
MFree: 7.4G MFree: 7.4G MFree: 7.4G MFree: 7.3G MFree: 22G MFree: 22G

linux22  linux23  linux24  linux25  linux26  linux27
Users: 0  Users: 0  Users: 0  Users: 0  Users: 0  Users: 0
CPU : 3.9% CPU : 0.0% CPU : 0.0% CPU : 0.0% CPU : 0.0% CPU : 0.0%
Mem : 3.0% Mem : 1.6% Mem : 1.7% Mem : 3.5% Mem : 1.7% Mem : 1.6%
MUsed: 700M MUsed: 364M MUsed: 399M MUsed: 264M MUsed: 399M MUsed: 366M
MFree: 21G  MFree: 22G  MFree: 22G  MFree: 7.3G MFree: 22G MFree: 22G

linux28  linux29  linux30
Users: 0  Users: 0  Users: 0
CPU : 0.0% CPU : 0.0% CPU : 0.1%
Mem : 1.6% Mem : 1.5% Mem : 1.8%
MUsed: 363M MUsed: 334M MUsed: 414M
MFree: 22G  MFree: 23G  MFree: 22G

----- 415 Server Monitor Board -----
Last updated: 09/09/2022--02:33:03
Color | Recommend | Avai Number |
-----|-----|-----|
Green | ***** | 49
Blue  | ***** | 2
Yellow| ***      | 0
Red   | **       | 0
White |          | 0

[iclab001@eee23 ~] scheck
```

(1) 輸入“scheck”，查看可用伺服器資訊

Type “scheck” to check all available servers



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```
-----
| CAD tools available on this machine (2022.03.13 updated) |
|-----|-----|-----|
| Cell-Based Design | Synopsys | Cadence |
| Simulation | VCS_2020.12(vcs) | XCELIUM_20.09(xrun) |
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| Synthesis | DC_2020.09(dc_shell) | GENUS_20.10(genus) |
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|-----|-----|-----|
| Full-Custom Design | Synopsys | Cadence |
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| | CEX_2020.12(cx,wv) | |
| Layout | LAKER_2021.03(laker) | IC_06.17(virtuoso) |
|-----|-----|-----|
| Others | Siemens Calibre | |
| | Synopsys MetaWare Development Toolkit | |
| | Synopsys Tetra Max | |
| | Python3.6 | |
|-----|-----|-----|
| License Server | 1717@lshc:5280@lshc:26585@lshc |
|-----|-----|-----|
| Useful Command: |
| 1. quota -us [username] --> check out your quota |
| 2. passwd --> change your password |
| 3. htop --> check out server usage |
| 4. scheck --> check available server usage |
|-----|-----|-----|
[vlsi001@ee02 ~]$ passwd
Changing NIS account information for vlsi001 on raid.
Please enter old password:
Changing NIS password for vlsi001 on raid.
Please enter new password:
The password must have at least 6 characters.
Please enter new password:
The password must have both upper and lowercase letters, or non letters.
Please enter new password:
Please retype new password:

The NIS password has been changed on raid.
[vlsi001@ee02 ~]$
```

(1) 首次登入 輸入"passwd" 更改密碼

Type "passwd" to change password when first login

(2) 輸入舊密碼(預設密碼)

Type old password(default)

(3) 輸入新密碼

Type new password

(4) 再次輸入新密碼

Retype new password

(5) 更改成功

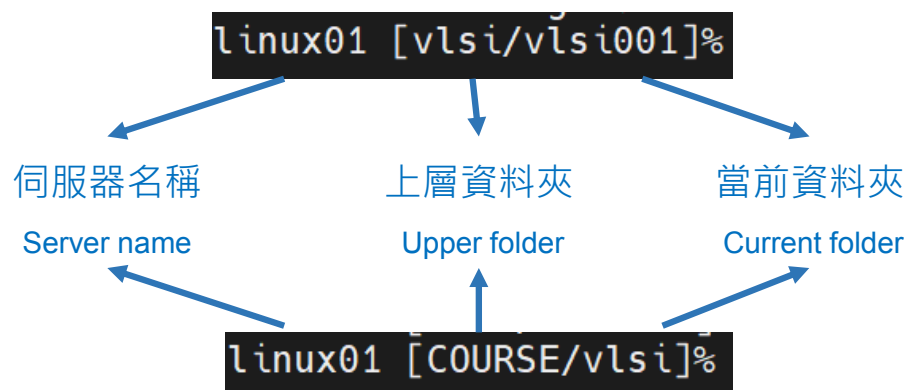
Successful change



辨別家目錄與當前所在路徑 Identify current path and home directory

- 家目錄 Home Directory

- ❑ 此工作站為修課工作站，本課程的資料夾名稱為vlsi
- ❑ 每個帳號都有專屬的資料夾 vlsi001~vlsi100 為該帳號之家目錄
- ❑ 任一帳號僅對其家目錄有所有權限
- ❑ 課程資料路徑: /RAID2/COURSE/vlsi/vlsi{001~100}
- ❑ 可以用 ~ 表示家目錄 例如: ~/test = /RAID2/COURSE/vlsi/vlsi001/test



基本指令介紹 Basic linux command

- **pwd** → 顯示當層資料夾完整路徑 Show current folder full path
- **ls** → 列出當前資料夾底下項目 Show items in current folder
 - **ls -a**: list all files include shaded files , **ls -l**: show detail information
- **mkdir** → 建立新資料夾 Create a new folder
- **cd** → 進入/退出資料夾 Enter a folder or leave a folder
 - **cd ..** go to upper folder, **cd -** go to previous folder, **cd ~** go to home directory
- **cp** → 複製檔案/資料夾 Copy file or folder
 - **cp -r [folder name]** , -r represent recursive (複製資料夾要加-r)
- **rm** → 刪除檔案/資料夾 Remove file or folder
 - **rm -rf [folder name]** , -r represent recursive (刪除資料夾要加-r · 記得資料刪除就真的刪除 · 助教也救不回來)
- **Ctrl + C** → 中斷指令 Interrupts command (打錯指令或是當機可輸入中斷指令終止程式執行)



基本指令介紹 Basic linux command

- **passwd**
- **man command** //format and display the on-line manual pages
 - e.g. man cd
- **mkdir directory** //make directory
 - e.g. mkdir ~/LAB/Lab1/Exercise //~ = user's home
- **cd destination** //change directory
 - e.g. cd ../vlsi08/Lab1/ //.. = parent directory
- **cp source destination** //copy files
 - e.g. cp -r Lab1/ Lab2/ //-r = recursively copy without asking
- **mv source destination** //move or rename files
 - e.g. mv Lab1.v ../ //move
 - e.g. mv Lab1.v Lab2.v //rename



基本指令介紹 Basic linux command

- **ls** **//list** directory contents
 - e.g. **ls -la** **//-la** = long format and show all files
- **rm** **file** **//remove** (delete) files
 - e.g. **rm ABC.v**
 - e.g. **rm -rf Lab1/**
- **tar** **option** **file**
 - e.g. **tar -xvf Lab1.tar** **//extract** the tarball and shows information
 - e.g. **tar -cvf Lab1.tar Lab1** **//make** a tarball
- **top** **//show** all users in current workstation
- **jobs** **//show** all background process with labeled number
- **kill** **//kill** process



基本指令介紹 Basic linux command

更多指令可參考來源資料 (<https://ithelp.ithome.com.tw/articles/10235530>)

exit	離開	<code>exit</code>
pwd	取得目前的路徑	<code>pwd</code>
ls	取得當前資料夾與檔案名稱	<code>ls</code>
cd	切換目錄	<code>cd ~</code>
touch	建立檔案	<code>touch demo.html</code>
mkdir	建立資料夾	<code>mkdir demo</code>
rm	刪除檔案	<code>rm demo.html</code>
cp	複製檔案	<code>cp demo.html demo1.html</code>
scp	在不同的 Linux 主機之間複製檔案	<code>scp user_name@riverye.com:/home/data/考試100分.pdf ~/Desktop</code>

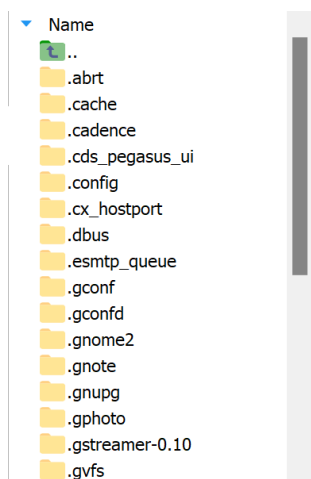
mv	移動檔案	<code>mv demo1.html ~</code>
sudo	使用最高權限	<code>sudo</code> 欲使用的指令
man	查看指令說明文件	<code>man pwd</code>
help	查看指令說明	<code>mv --help</code>
clear	清除終端機上的訊息 (往上捲看得到)	<code>clear</code>
which	查詢指令的來源路徑	<code>which sudo</code>
find	找出符合條件的檔案或資料夾	<code>find .</code>



其他技巧 Other tips

資料上傳下載

Upload / Download File By SFTP



連線到別台伺服器

Jump to another server

Note that: -Y is needed for XForwarding

```
[iclab001@ee23 ~]$ ssh ee01.ee.nctu.edu.tw -Y -p 415
The authenticity of host '[ee01.ee.nctu.edu.tw]:415 ([140.113.201.1]:415)' can't be established.
ECDSA key fingerprint is SHA256:8yXgXsKtThZ39x46b64iCG4Kl8ieGwaZehbpg5ZjsT8.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '[ee01.ee.nctu.edu.tw]:415' (ECDSA) to the list of known hosts.
iclab001@ee01.ee.nctu.edu.tw's password:
Activate the web console with: systemctl enable --now cockpit.socket

Last login: Fri Sep  9 02:31:59 2022 from 140.113.201.23

=====
|                               Welcome to ED415 Server System                               |
=====

Check all server status:
'scheck' command
Hostname: :
ee01
CPU Model: :
12thGenIntel(R)Core(TM)i7-12700
Operating System:
CentOS Stream release 8
Memory Size:
62Gi
Server Manager:
Lin-Hung Lai (lhilai@ieee.org)
Eugene Lee (eugene@ieee.org)
Report Problem:
https://forms.gle/FNmZmyMdSb4XoU7fA
=====

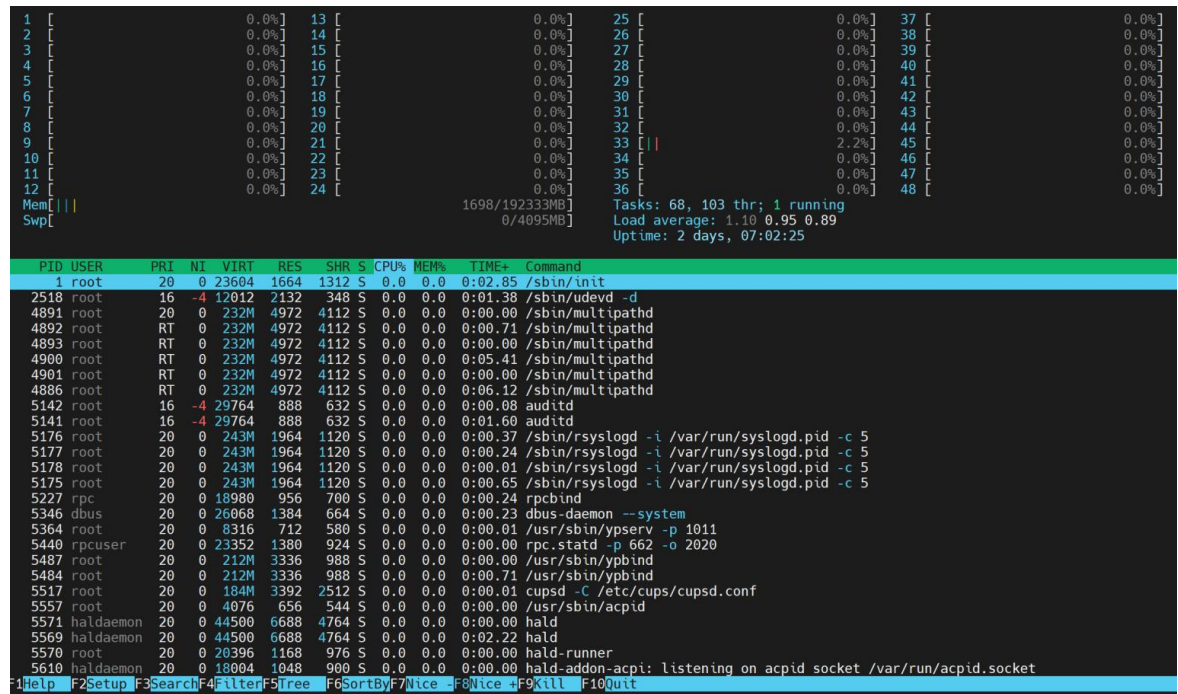
>>> Are you sure to login? (type 'yes' to start)
=====
> |
```



其他技巧 Other tips

Using “htop” command to check the server status

Configure ~/.cshrc to build up
your own environment



The screenshot displays the htop utility interface. The top section shows system statistics: 1698/192333MB memory usage, 0/4095MB swap, 68 tasks, 103 threads, 1 running process, and a load average of 1.10 0.95 0.89 over 2 days, 07:02:25 uptime.

PID	USER	PRI	NI	VIRT	RES	SHR	S	CPU%	MEM%	TIME+	Command
1	root	20	0	23604	1664	1312	S	0.0	0.0	0:02.85	/sbin/init
2518	root	16	-4	12012	2132	348	S	0.0	0.0	0:01.38	/sbin/udev -d
4891	root	20	0	232M	4972	4112	S	0.0	0.0	0:00.00	/sbin/multipathd
4892	root	RT	0	232M	4972	4112	S	0.0	0.0	0:00.71	/sbin/multipathd
4893	root	RT	0	232M	4972	4112	S	0.0	0.0	0:00.00	/sbin/multipathd
4900	root	RT	0	232M	4972	4112	S	0.0	0.0	0:05.41	/sbin/multipathd
4901	root	RT	0	232M	4972	4112	S	0.0	0.0	0:00.00	/sbin/multipathd
4886	root	RT	0	232M	4972	4112	S	0.0	0.0	0:06.12	/sbin/multipathd
5142	root	16	-4	29764	888	632	S	0.0	0.0	0:00.08	auditd
5141	root	16	-4	29764	888	632	S	0.0	0.0	0:01.60	auditd
5176	root	20	0	243M	1964	1120	S	0.0	0.0	0:00.37	/sbin/rsyslogd -i /var/run/syslogd.pid -c 5
5177	root	20	0	243M	1964	1120	S	0.0	0.0	0:00.24	/sbin/rsyslogd -i /var/run/syslogd.pid -c 5
5178	root	20	0	243M	1964	1120	S	0.0	0.0	0:00.01	/sbin/rsyslogd -i /var/run/syslogd.pid -c 5
5175	root	20	0	243M	1964	1120	S	0.0	0.0	0:00.65	/sbin/rsyslogd -i /var/run/syslogd.pid -c 5
5227	rpc	20	0	18980	956	700	S	0.0	0.0	0:00.24	rpcbind
5346	dbus	20	0	26068	1384	664	S	0.0	0.0	0:00.23	dbus-daemon --system
5364	root	20	0	8316	712	580	S	0.0	0.0	0:00.01	/usr/sbin/ypserv -p 1011
5440	rpcuser	20	0	23352	1380	924	S	0.0	0.0	0:00.00	rpc.statd -p 662 -o 2020
5487	root	20	0	212M	3336	988	S	0.0	0.0	0:00.00	/usr/sbin/ypbind
5484	root	20	0	212M	3336	988	S	0.0	0.0	0:00.71	/usr/sbin/ypbind
5517	root	20	0	184M	3302	2512	S	0.0	0.0	0:00.01	cupsd -C /etc/cups/cupsd.conf
5557	root	20	0	4076	656	544	S	0.0	0.0	0:00.00	/usr/sbin/acpid
5571	haldaemon	20	0	44500	6688	4764	S	0.0	0.0	0:00.00	hald
5569	haldaemon	20	0	44500	6688	4764	S	0.0	0.0	0:02.22	hald
5570	root	20	0	20396	1168	976	S	0.0	0.0	0:00.00	hald-runner
5610	haldaemon	20	0	18004	1048	900	S	0.0	0.0	0:00.00	hald-addon-acpi: listening on acpid socket /var/run/acpid.socket

At the bottom, a menu bar is visible with options: F1 Help, F2 Setup, F3 Search, F4 Filter, F5 Tree, F6 Sort By, F7 Nice, F8 Nice, F9 Kill, F10 Quit.



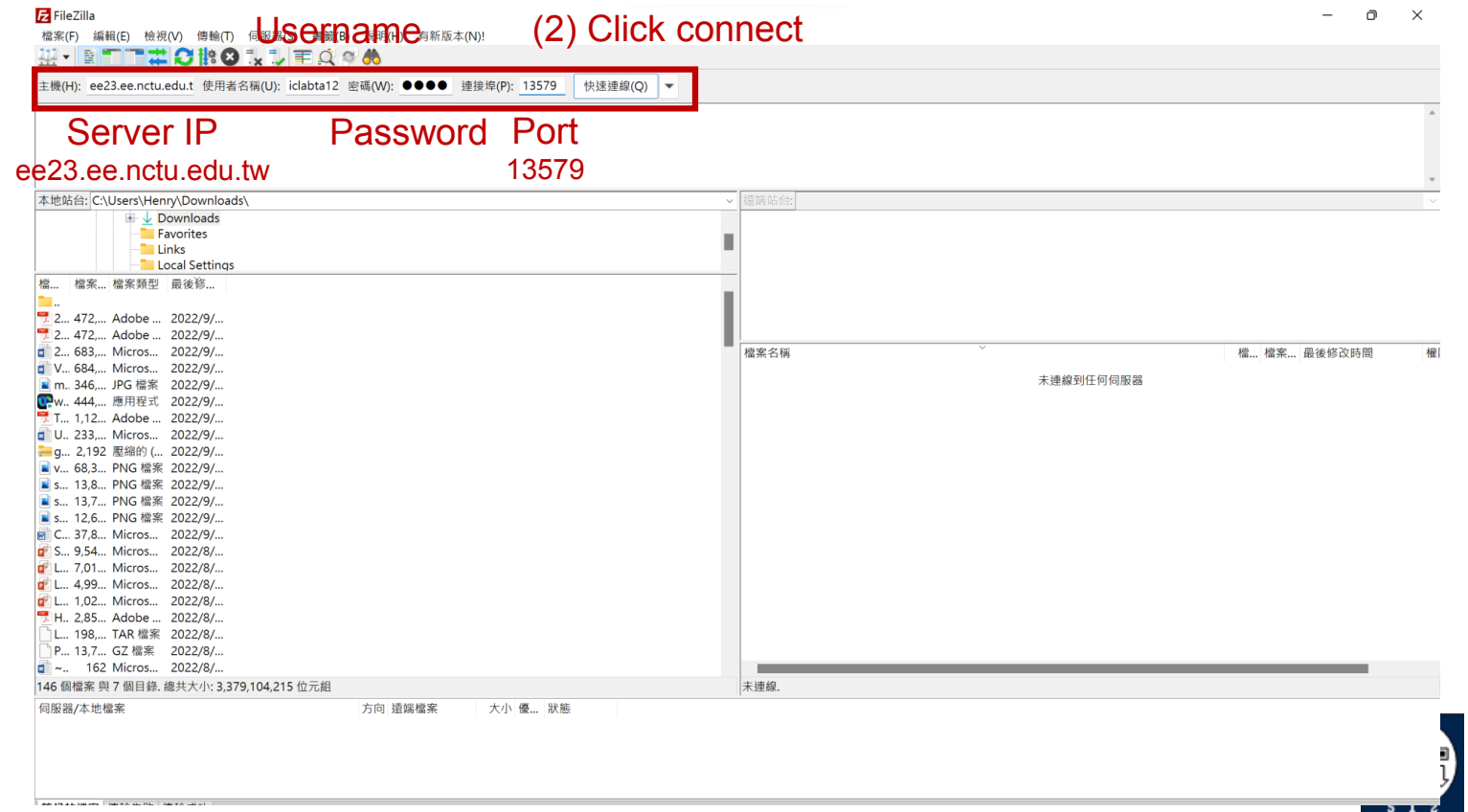
Outline

- 415 SSH Connection
- Connect to Server: MobaXterm
- EDA Tool Notification
- **FTP Data Upload/Download**
- XRDP Remote Desktop

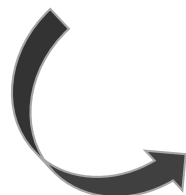


檔案上傳下載 FTP Service

(1) Connection



檔案上傳下載 FTP Service



未知的憑證



這個伺服器的憑證不明。請留心測試憑證以確保伺服器可以信任。

比較顯示的數位指紋與您由伺服器管理員或代管廠商取得的憑證數位指紋。

憑證

預覽

數位指紋 (SHA-256): 6a:8d:fd:b5:3f:95:7c:79:1e:c0:df:8e:7d:c8:7b:86:
4c:65:7a:4f:15:c0:98:27:d5:56:f5:ca:6c:c2:15:80

數位指紋 (SHA-1): 6a:33:dd:36:0d:1f:11:ce:53:ef:7a:c6:dc:0f:d6:21:8f:f5:d3:b6
有效期間: 從 2022/9/9 下午 11:16:14 到 2032/9/6 下午 11:16:14

標題

通用名: ee23
組織: NYCU
單位: Institution
國家: TW
州郡省份: Taiwan
城市名: Hsinchu
電子郵件: lhlai@ieee.org

發行者

如標題, 憑證是自行簽署的

詳細內容

序號: 7c:9e:e0:4f:71:c0:83:e2:7c:d3:f3:be:9d:f6:72:82:55:8f:32:dd

公開金鑰演算法: RSA (2048 位元)

簽署演算法: SHA-256

連線細節

主機: ee23.ee.nctu.edu.tw:13579 - 主機名稱與憑證不相符

協定: TLS1.3

加密方式: AES-256-GCM

金鑰交換: ECDHE-SECP256R1-RSA-PSS-RSAE-SHA384 訊息鑑別碼: AEAD

要信任這個憑證並且繼續連線?

☐ 之後的連線總是信任這個憑證(A).

☐ 信任該憑證所列的替代主機名稱(T).

Click Yes

確認

取消



檔案上傳下載 FTP Service

ftp://iclabta12@ee23.ee.nctu.edu.tw:13579 - FileZilla

檔案(F) 編輯(E) 檢視(V) 傳輸(T) 伺服器(S) 書籤(B) 說明(H) 有新版本(N)!

主機(H): ee23.ee.nctu.edu.t 使用者名稱(U): iclabta12 密碼(W): ●●●● 連接埠(P): 13579 快速連線(Q)

狀態: Timezone offset of server is 0 seconds.
狀態: 成功取得 "/UpLoaD" 的目錄
狀態: 正在取得 "/" 的目錄列表...
狀態: 成功取得 "/" 的目錄

本地站台: C:\Users\Henry\Downloads\

遠端站台: /

檔案名稱

檔案名稱	檔案...	最後修改時間	權
UpLoaD	檔案...	2022/8/22 下午 07:...	dr

146 個檔案 與 7 個目錄, 總共大小: 3,379,104,215 位元組

同伺服器/本地檔案 方向 遠端檔案 大小 優先 狀態

等候的檔案 傳輸失敗 傳輸成功

Successful

**Your PC:
home directory**

**415 Server:
home directory**

Data Transition task



檔案上傳下載 FTP Service

ftp://iclabta12@ee23.ee.nctu.edu.tw:13579 - FileZilla

檔案(E) 編輯(E) 檢視(V) 傳輸(T) 伺服器(S) 書籤(B) 說明(H) 有新版本(N)!

主機(H): ee23.ee.nctu.edu.t 使用者名稱(U): iclabta12 密碼(W): ●●●● 連接埠(P): 13579 快速連線(Q)

狀態: 開始 C:\Users\Henry\Downloads\vpn.png 的上傳
狀態: 檔案傳輸成功, 已傳輸 68,344 位元組 (全部 1 秒)
狀態: 正在取得 "/" 的目錄列表...
狀態: 成功取得 "/" 的目錄

本地站台: C:\Users\Henry\Downloads\

遠端站台: /

檔案名稱 檔案... 最後修改時間 權...

vpn.png	68,344	PN...	2022/9/11 上午 03:...	-rv
UpLoaD		檔案...	2022/8/22 下午 07:...	dn

1 個檔案 與 1 個目錄, 總共大小: 68,344 位元組

等候的檔案 傳輸失敗 (3) 傳輸成功 (2)

Double click file to upload

Double click file to download

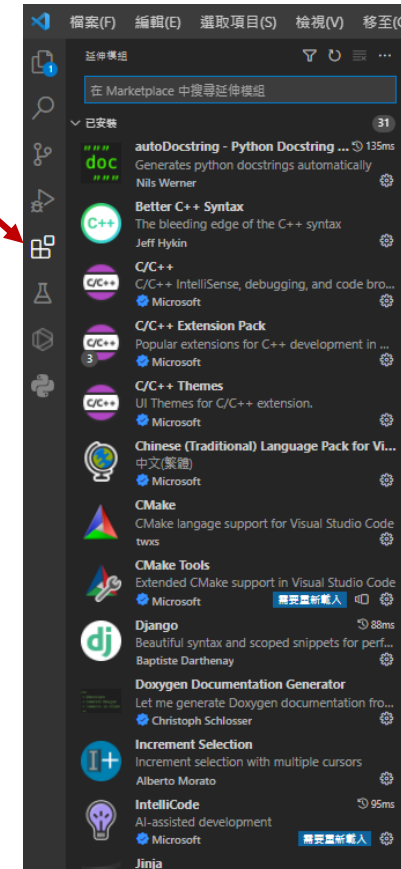
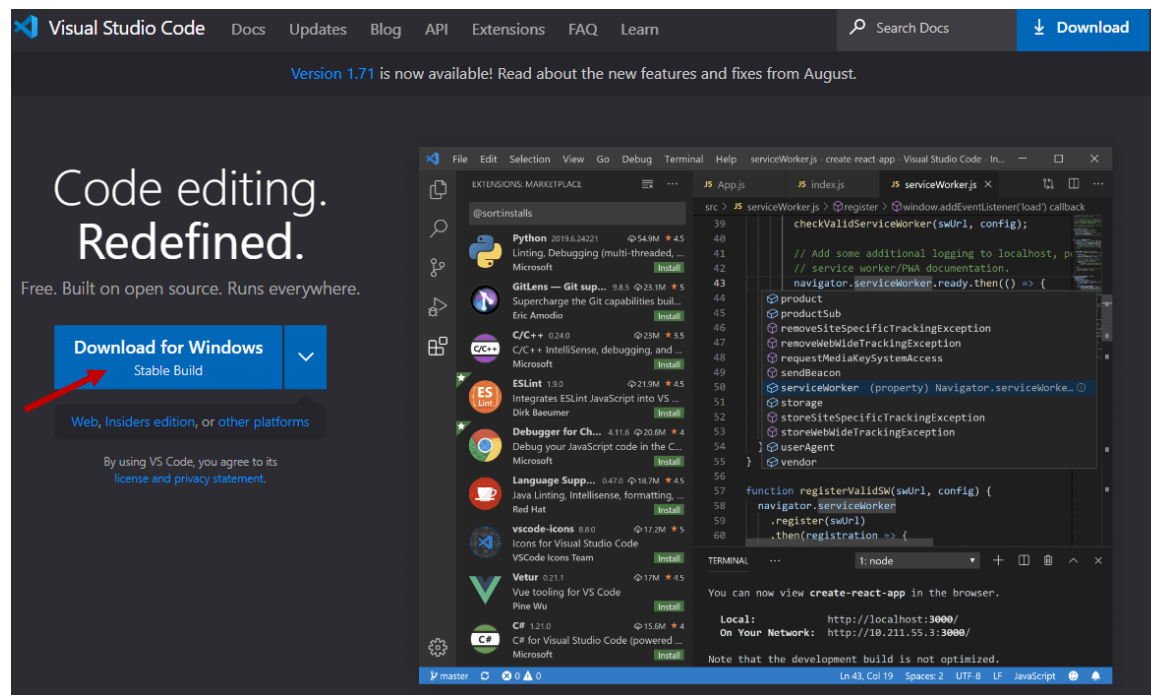


文字編輯器 Text Editor

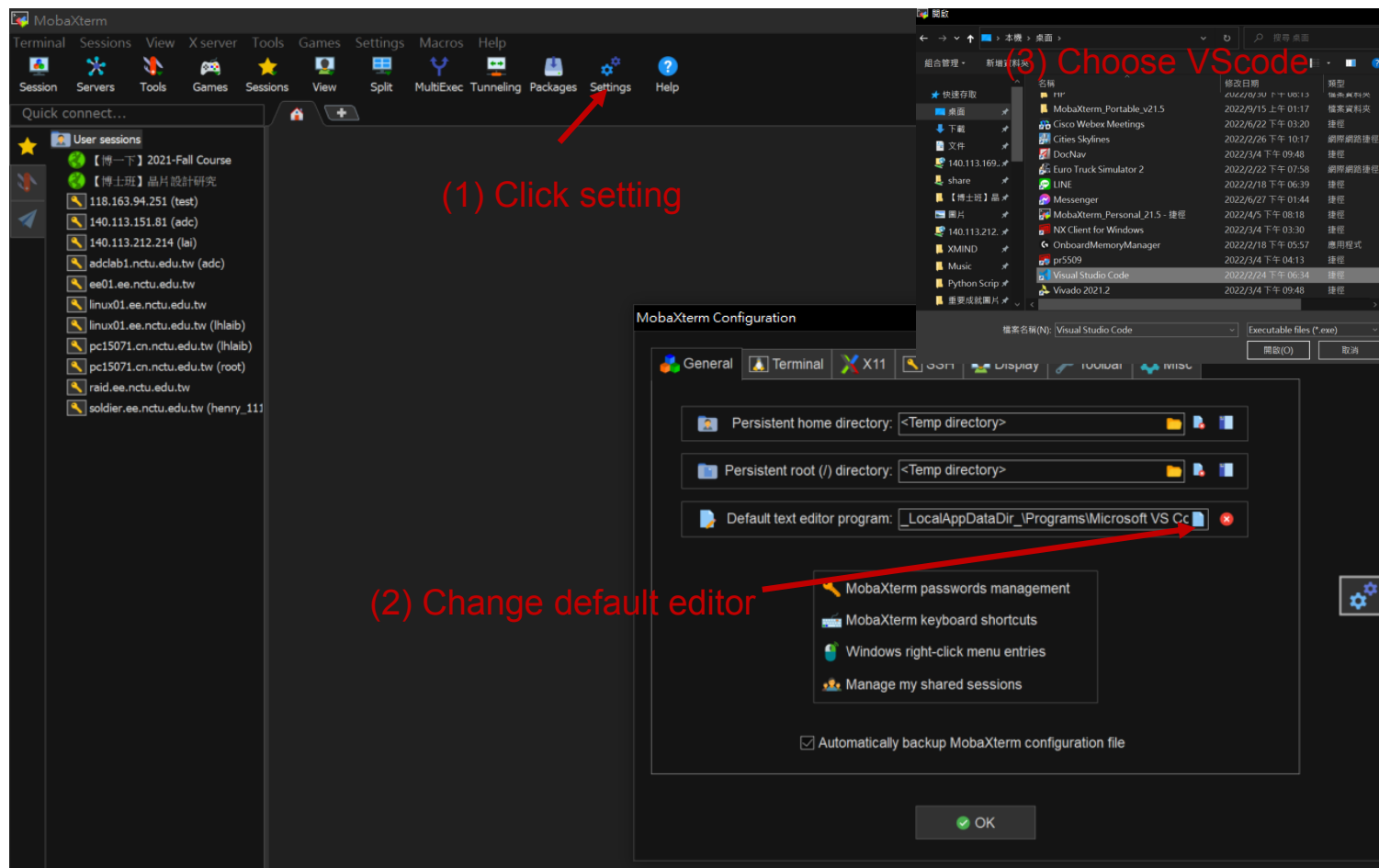
VScode

<https://code.visualstudio.com/>

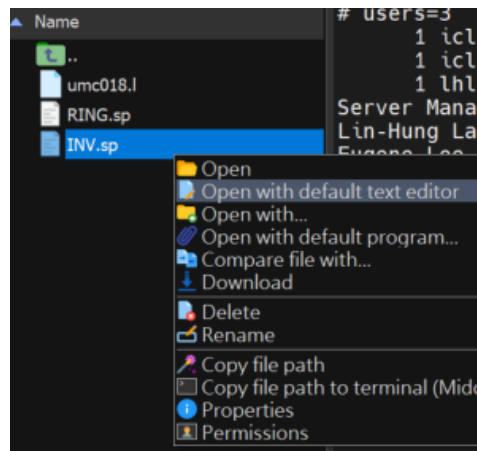
Click extension
Download needed extension
As your prefer



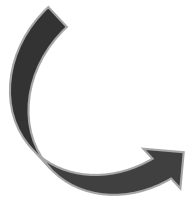
文字編輯器 Text Editor



文字編輯器 Text Editor



Open with default editor



```
File Edit Selection View Go Run Terminal Help
INV.sp x
C: > Users > hung8 > AppData > Local > Temp > Mxt215 > RemoteFiles > 3017394_5_1 > INV.sp
1  ***
2  ***      VLSI 2021 Lab1      ***
3  ***      CMOS inverter      ***
4  ***      Example            ***
5  ***
6  .title vlsi lab1_inv
7
8  ***
9  ***      setting            ***
10 ***
11 .lib "umc018.1" L18U18V_TT
12 .TEMP 25
13 .op
14 .options post
15
16 ***
17 ***      parameters          ***
18 ***
19 .global VDD GND
20 .param supply=1.8v
21 .param load=0.1f
22
23 .param wp=0.24u
24 .param wn=0.24u
25
```

415 Server Configuration

Name	Host Name	OS	CPU	MEM
ee01	ee01.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee02	ee02.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee03	ee03.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee04	ee04.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee05	ee05.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee06	ee06.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee07	ee07.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee08	ee08.EE.NCTU.edu.tw	SUN OS	memory server	
ee09	ee09.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee10	ee10.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee11	ee11.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee12	ee12.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee13	ee13.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee14	ee14.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee15	ee15.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee16	ee16.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee17	ee17.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G
ee18	ee18.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	32 G
ee19	ee19.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	32 G
ee20	ee20.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	32 G
ee21	ee21.EE.NCTU.edu.tw	CentOS Stream release 8	Intel(R)Core(TM)i7-7700CPU@3.60GHz	8 G
ee22	ee22.EE.NCTU.edu.tw	CentOS Stream release 8	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
ee23	ee23.EE.NCTU.edu.tw	CentOS Stream release 8	12thGenIntel(R)Core(TM)i7-12700	64 G

415 Server Configuration

Name	Host Name	OS	CPU	MEM
ee32	ee32.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Xeon(R)Gold5118CPU@2.30GHz	187 G
linux01	linux01.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux02	linux02.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux03	linux03.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux04	linux04.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux05	linux05.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux06	linux06.EE.NCTU.edu.tw	CentOS Stream release 8	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux07	linux07.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux08	linux08.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux09	linux09.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux10	linux10.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux11	linux11.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux12	linux12.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux13	linux13.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux14	linux14.EE.NCTU.edu.tw	CentOS Stream release 8	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux15	linux15.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G



415 Server Configuration

Name	Host Name	OS	CPU	MEM
linux16	linux16.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux17	linux17.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux18	linux18.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux19	linux19.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	8 G
linux20	linux20.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux21	linux21.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux22	linux22.EE.NCTU.edu.tw	CentOS Stream release 8	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux23	linux23.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux24	linux24.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux25	linux25.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	8G
linux26	linux26.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux27	linux27.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux28	linux28.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux29	linux29.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux30	linux30.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux31	linux31.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux32	linux32.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux33	linux33.EE.NCTU.edu.tw	Windows	Intel(R)Core(TM)i7-7700CPU@3.60GHz	
linux34	linux34.EE.NCTU.edu.tw			
linux35	linux35.EE.NCTU.edu.tw	Windows	Intel(R)Core(TM)i7-7700CPU@3.60GHz	

415 Server Configuration

Name	Host Name	OS	CPU	MEM
linux16	linux16.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux17	linux17.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux18	linux18.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-4790CPU@3.60GHz	8 G
linux19	linux19.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	8 G
linux20	linux20.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux21	linux21.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux22	linux22.EE.NCTU.edu.tw	CentOS Stream release 8	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux23	linux23.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux24	linux24.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux25	linux25.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	8G
linux26	linux26.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux27	linux27.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux28	linux28.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux29	linux29.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux30	linux30.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux31	linux31.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux32	linux32.EE.NCTU.edu.tw	CentOS release 6.10 (Final)	Intel(R)Core(TM)i7-7700CPU@3.60GHz	24 G
linux33	linux33.EE.NCTU.edu.tw	Windows	Intel(R)Core(TM)i7-7700CPU@3.60GHz	
linux34	linux34.EE.NCTU.edu.tw			
linux35	linux35.EE.NCTU.edu.tw	Windows	Intel(R)Core(TM)i7-7700CPU@3.60GHz	