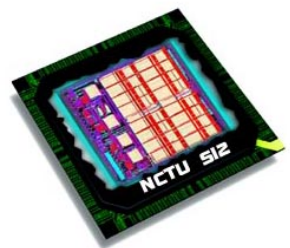


# Lec00 Environment Setting



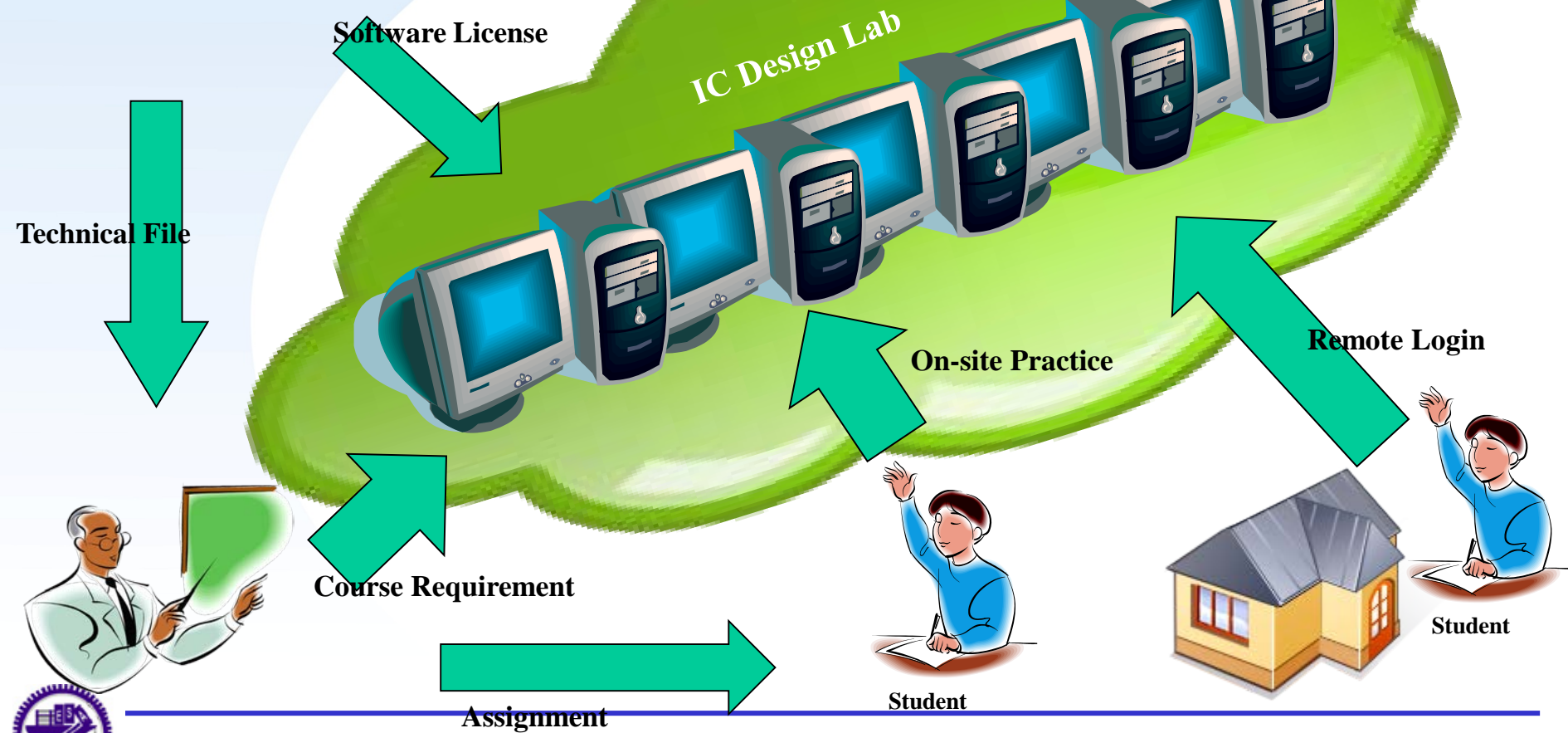
# Environment



**NAR Labs** 國家實驗研究院  
**台灣半導體研究中心**  
Taiwan Semiconductor Research Institute



NCTU



# Work Station

- ✓ **Use SSH to connect**

- port = 22

- ✓ **140.113.169.144**

- ✓ **Account: 2023train\_?? (?? = 01~09)**

- ✓ **Password: eecs**

- ✓ **Access**

- Mobaxterm (Recommended)

Appendix:

- Putty + X-display software (Xwin-32, Xming) + FTP (Filezilla)
  - Sublime




# Mobaxterm

## ✓ Default with X11 Forwarding

Session settings

SSH Telnet Rsh Xdmcp RDP VNC FTP SFTP Serial File Shell Browser Mosh Aws S3

Basic SSH settings

Remote host \*  ☐ Specify username   Port

Advanced SSH settings Terminal settings Network settings Bookmark settings


☒ X11-Forwarding ☒ Compression Remote environment:

Execute command:  ☐ Do not exit after command ends

SSH-browser type:  ☐ Follow SSH path (experimental)

☐ Use private key  ☐ Adapt locales on remote server

Execute macro at session start:



OK Cancel

## ✓ Embedded sftp system



# Linux : Basic Operations

- ✓ **>man COMMAND** //format and display the on-line manual pages
  - ex: man ln
- ✓ **>mkdir DIRECTORY** //make directory
  - e.g. mkdir -p /home/test
- ✓ **>cd DESTINATION** //change current directory
  - e.g. cd ../iclab08/Lab01/
  - e.g. cd (change to home directory)
- ✓ **>cp SOURCE DESTINATION** //copy files
  - e.g. cp ABC.v DEF.v
  - e.g. cp -rf Lab01/ Lab02/
- ✓ **>mv SOURCE DESTINATION** //move or rename files
  - e.g. mv ABC.v ../ABC.v
  - e.g. mv ABC.v DEF.v



# Linux : Basic Operations

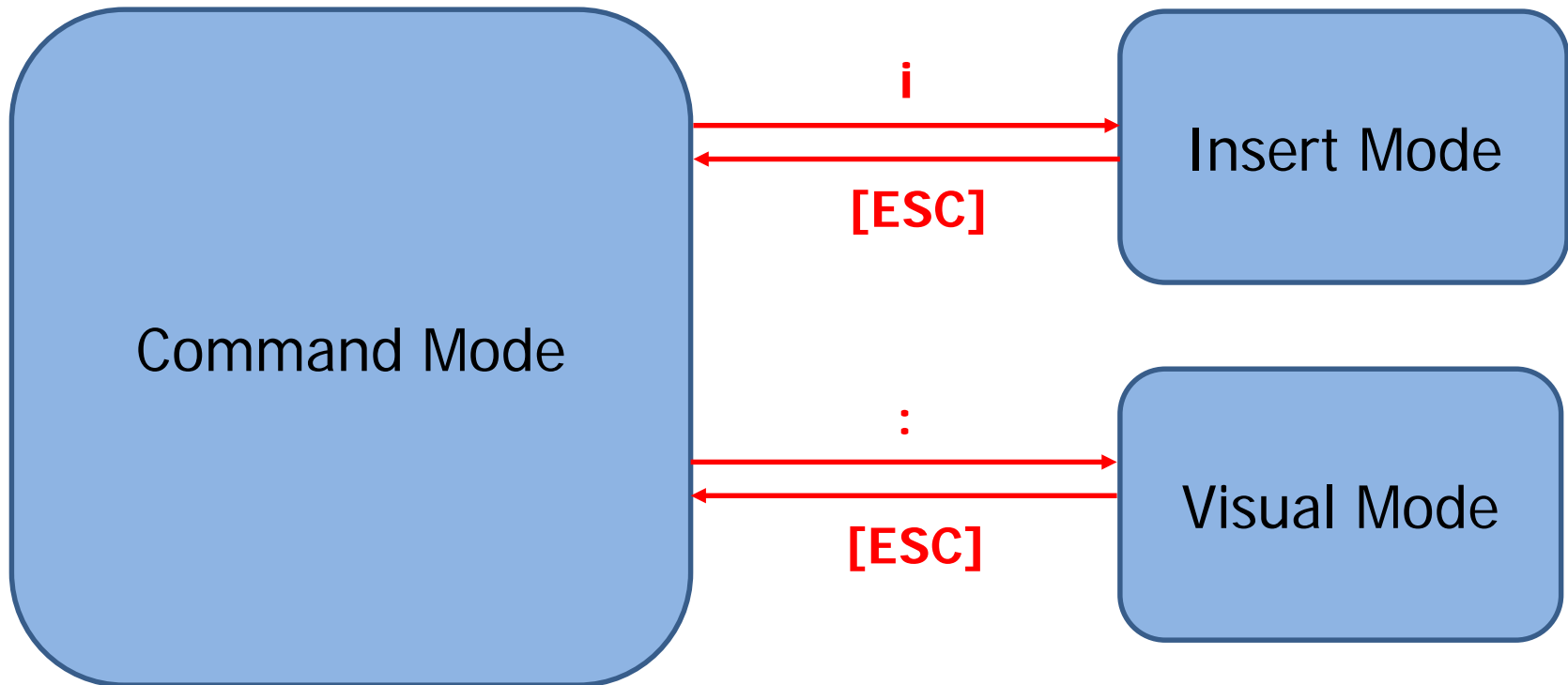
- ✓ **>rm FILE\_NAME** //remove (delete) files
  - e.g. rm ABC.v
  - e.g. rm -rf Lab01/
- ✓ **>ls** //list directory contents
  - e.g. ls -l
  - or you can use *dir* as well.
- ✓ **>ln TARGET LINK\_NAME** //make links between files
  - e.g. ln -s ~iclabt01/LIB/slow.db slow.db
- ✓ **>quota** //display disk usage and limits
  - e.g. quota



# On-line Text Editor – VIM

✓ **>vi filename** //create a file

- e.g. vi test.v
- e.g. vim test.v



# On-line Text Editor – VIM

## ✓ Command mode

- Move cursor:
  - [Page Down], [Page Up]
  - [Home], [End]
  - ↑(k)↓(j)←(h)→(l): move cursor
  - G: cursor moves to last column
  - nG: “n” is number. cursor moves to “n”th column
  - gg: cursor moves to the first column. (=1G)
  - n<Enter>: “n” is number. cursor moves down n columns.
- Search & Replace:
  - /word: search for “word”
  - n: search the next
  - N: search the previous





# On-line Text Editor – VIM

- Delete & Copy & Paste:
  - [delete] or x: delete the character under the cursor.
  - X: delete the character before the cursor.
  - dd: delete a column where the cursor located at.
  - ndd: “n” is number. delete “n” columns.
  - yy: copy a column where the cursor located at.
  - nyy: “n” is number. copy “n” columns.
  - u: recover.
  - . : repeat the previous action.
  - [Shift]+v : select the column where the cursor located at.
  - [Ctrl]+v+[Shift]+I : edit multi-line.



# On-line Text Editor – VIM

## ✓ Insert mode:

- i : switch to insert mode before the current position.
- [Esc]: switch from the insert mode to the command mode

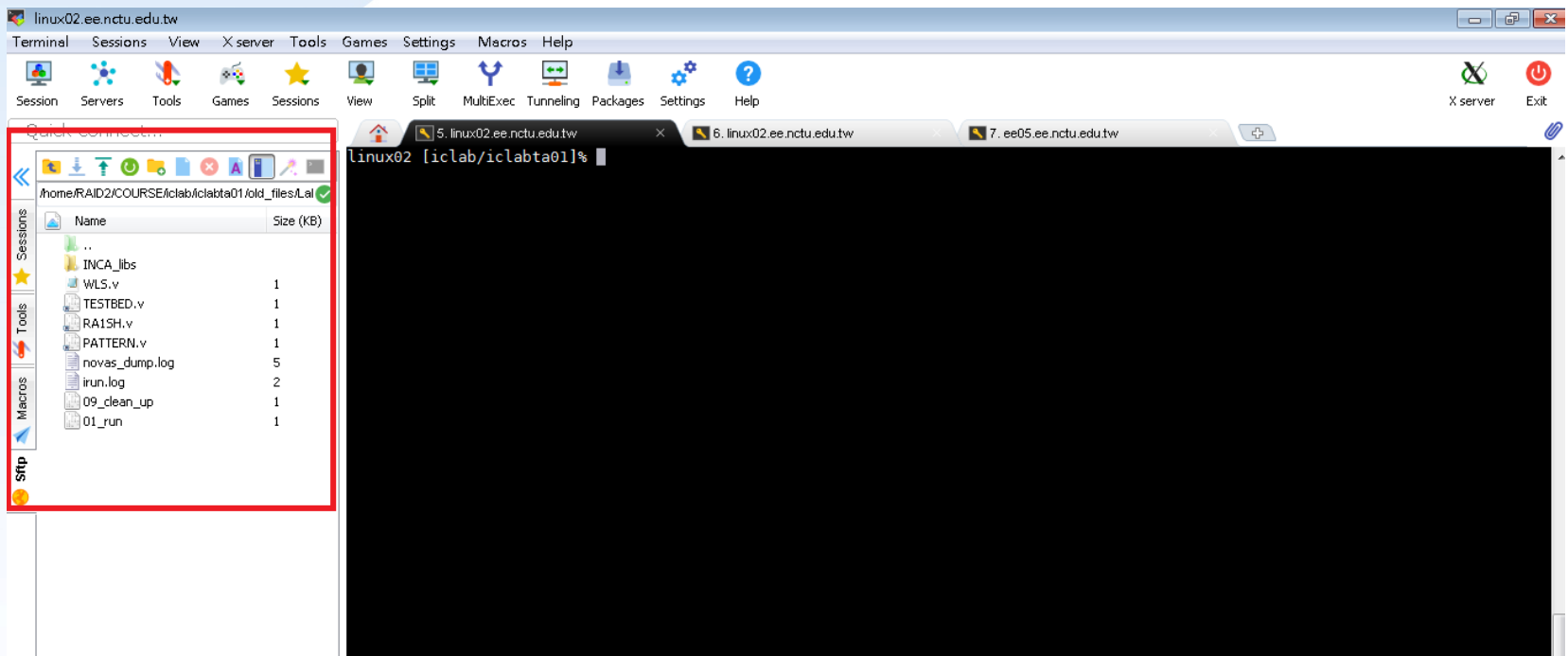
## ✓ Visual mode:

- :w : write the current buffer to disk.
- :q : closes current window.
- :wq : write the current buffer to disk and closes current window.
- :q! : closes current window forcibly.
- :set nu : display the column number.



# Editor

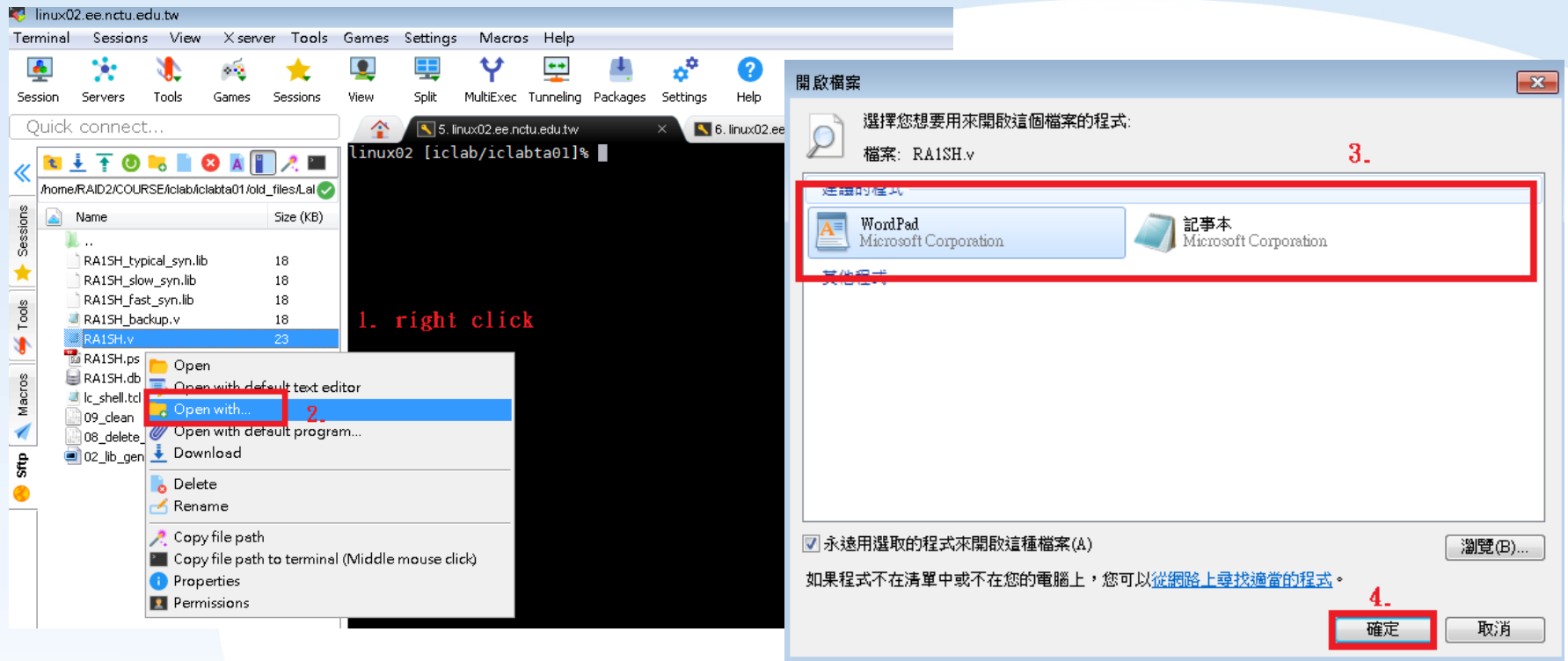
- ✓ **Download files, use your own editor and re-upload**
  - Manually
  - Supported by Mobaxterm



- Mobaxterm will download files into local computer and open it



# Editor



- ✓ Can choose any editor in your computer
- ✓ If 'notepad' does not display clear, first use 'wordpad' to open it and save, then 'notepad' displays good

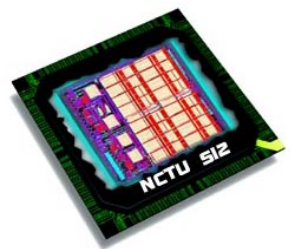


# Appendix

- ✓ **Notepad ++**
- ✓ **Putty & Xming Setting**  
(Alternative Login Software of Windos )
- ✓ **Sublime Editor**  
(Recommended for Mac OS)

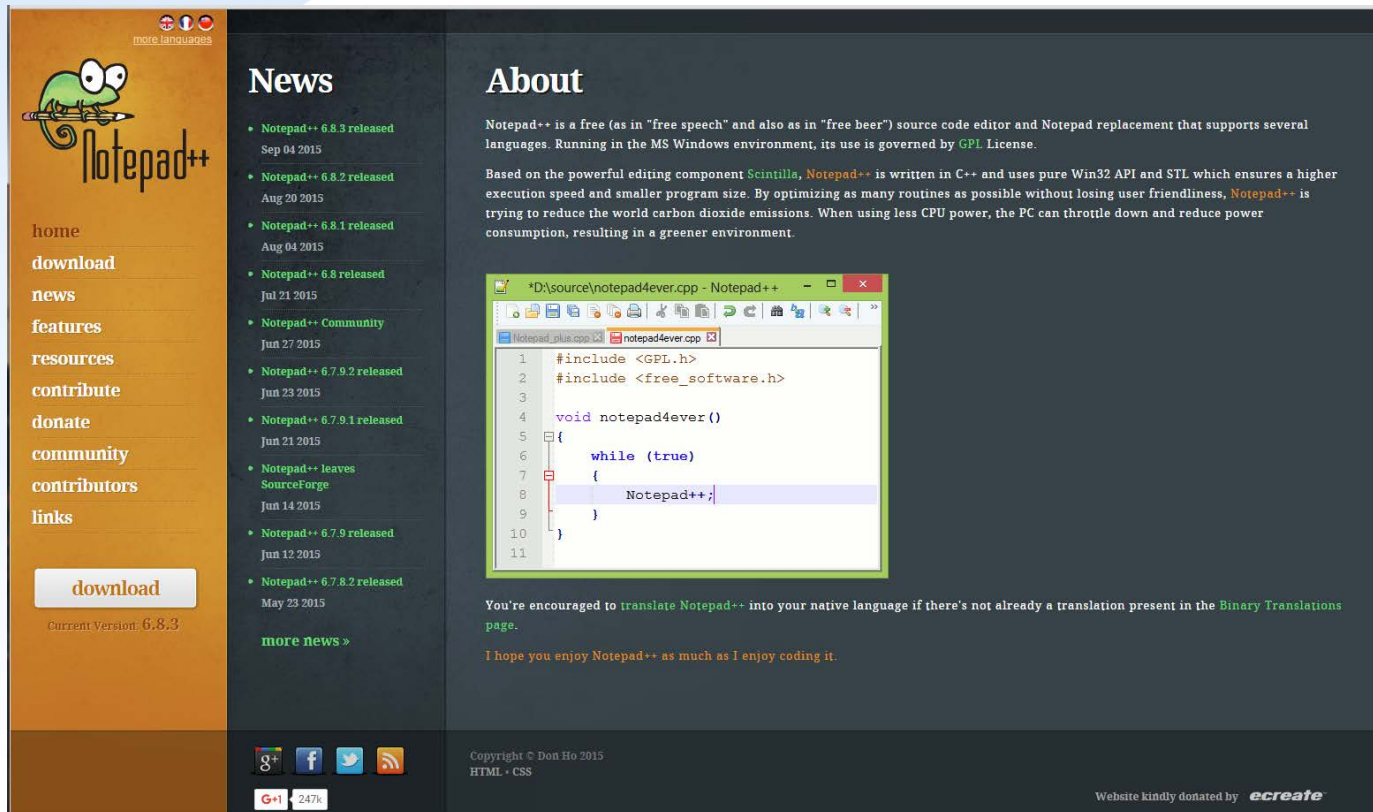


# Notepad++



# Text Editor – notepad++

<https://notepad-plus-plus.org/repository/7.x/7.7.1/npp.7.7.1.Installer.x64.exe>



The screenshot displays the Notepad++ website. On the left is a vertical navigation menu with links: home, download, news, features, resources, contribute, donate, community, contributors, and links. Below these is a 'download' button and the text 'Current Version: 6.8.3'. The main content area is divided into two columns. The left column, titled 'News', lists several releases of Notepad++ with their dates. The right column, titled 'About', contains text describing Notepad++ as a free source code editor and a Notepad replacement, based on the Scintilla component. It also includes a screenshot of a Notepad++ window showing a C++ code file named 'notepad4ever.cpp'. At the bottom of the page, there are social media icons, copyright information, and a note about the website being donated by 'ecreate'.

**News**

- Notepad++ 6.8.3 released  
Sep 04 2015
- Notepad++ 6.8.2 released  
Aug 20 2015
- Notepad++ 6.8.1 released  
Aug 04 2015
- Notepad++ 6.8 released  
Jul 21 2015
- Notepad++ Community  
Jun 27 2015
- Notepad++ 6.7.9.2 released  
Jun 23 2015
- Notepad++ 6.7.9.1 released  
Jun 21 2015
- Notepad++ leaves  
SourceForge  
Jun 14 2015
- Notepad++ 6.7.9 released  
Jun 12 2015
- Notepad++ 6.7.8.2 released  
May 23 2015

[more news »](#)

**About**

Notepad++ is a free (as in "free speech" and also as in "free beer") source code editor and Notepad replacement that supports several languages. Running in the MS Windows environment, its use is governed by [GPL](#) License.

Based on the powerful editing component [Scintilla](#), Notepad++ is written in C++ and uses pure Win32 API and STL which ensures a higher execution speed and smaller program size. By optimizing as many routines as possible without losing user friendliness, Notepad++ is trying to reduce the world carbon dioxide emissions. When using less CPU power, the PC can throttle down and reduce power consumption, resulting in a greener environment.

```
#include <GPL.h>
#include <free_software.h>

void notepad4ever()
{
    while (true)
    {
        Notepad++;
    }
}
```

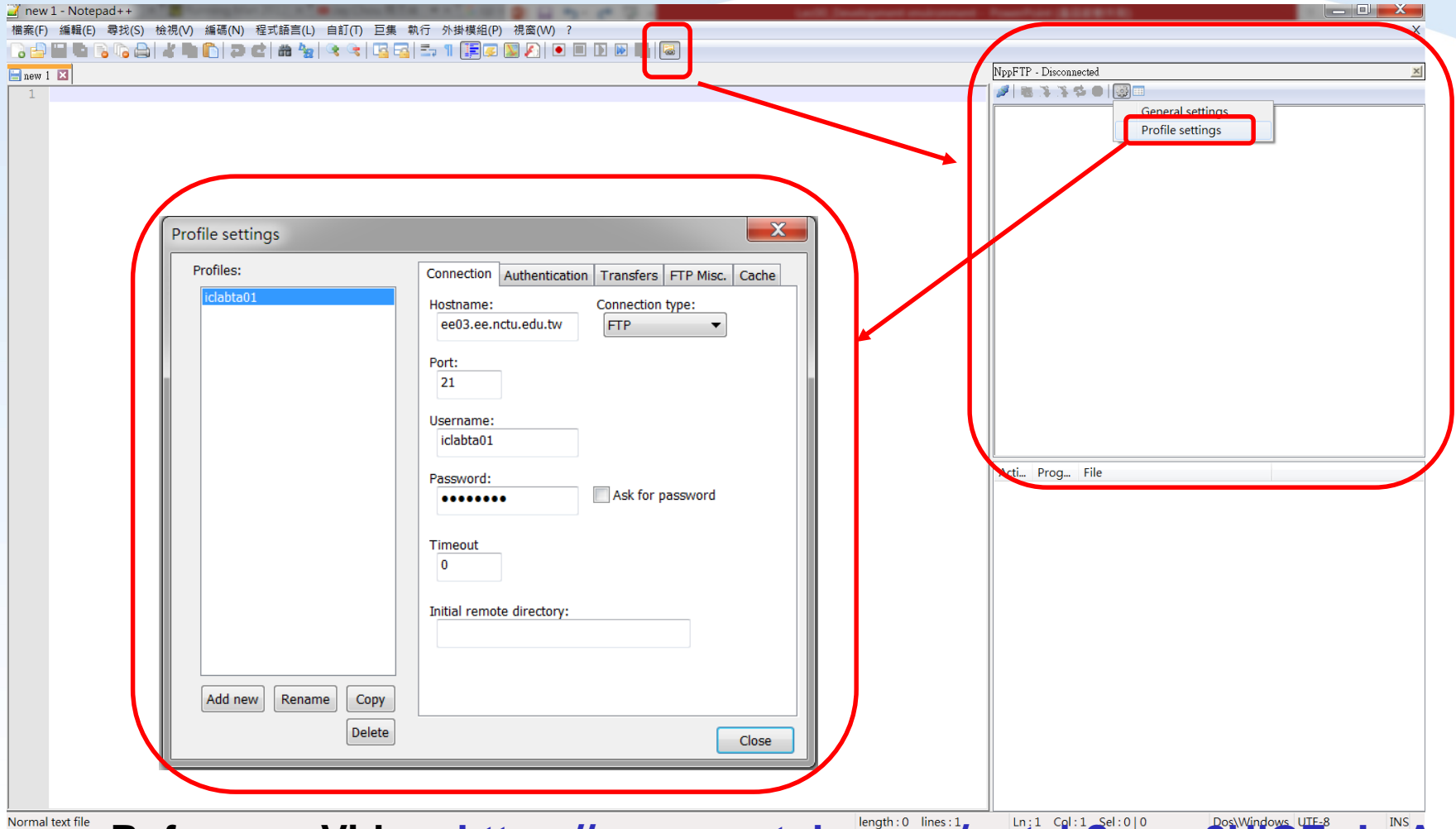
You're encouraged to [translate Notepad++](#) into your native language if there's not already a translation present in the [Binary Translations](#) page.

I hope you enjoy Notepad++ as much as I enjoy coding it.

Copyright © Don Ho 2015  
HTML • CSS

Website kindly donated by [ecreate](#)

# Text Editor – notepad++ setting



Reference Video: <https://www.youtube.com/watch?v=cu8UIGFwImA>



# Text Editor – notepad++

The screenshot displays the Notepad++ text editor with a Verilog file named `INF.sv` open. The code defines an interface `INF` and a module `DESIGN`. A red box highlights the `DESIGN` module definition, and a red arrow points to it with the text "Edit multi line: Alt + left mouse button".

On the right side, a file explorer window shows the directory structure. A red box highlights the `Verilog` folder, and a red arrow points to it with the text "upload/download".

Below the file explorer, a status bar shows "Acti... Prog... File".

At the bottom, a red box highlights the `Verilog` folder in the file explorer, and a red arrow points to it with the text "connect".

**Edit multi line: Alt + left mouse button**

# Thanks

