



Introduction Linux & Verilog

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Outline

- **Development environment**
 - Terminal , MobaXTerm
 - Linux instruction
 - Code edit , Notepad++ / vim
- **nWave introduction**
- **Homework rule**

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Terminal

- **Download**
 - MobaXterm
- **Open MobaXterm**
 - >ee?.ee.nctu.edu.tw (number ?? may start from 01 to 10)
 - >linux?.ee.nctu.edu.tw (number ?? may start from 01 to 35)
- **For information security, it is necessary to change the password of your account ASAP!**
- **Use the command**
 - >passwd

Terminal : MobaXterm

- <http://mobaxterm.mobatek.net/>
- Install:
 - Next → Next → ... → finish

MobaXterm Home Edition

Select the version you want to download (installable or portable version)



MobaXterm Home Edition v9.4
(Portable edition)



MobaXterm Home Edition v9.4
(Installer edition)

By clicking on the above buttons, you accept [MobaXterm terms and conditions](#)

You can download MobaXterm and plugins sources [here](#)

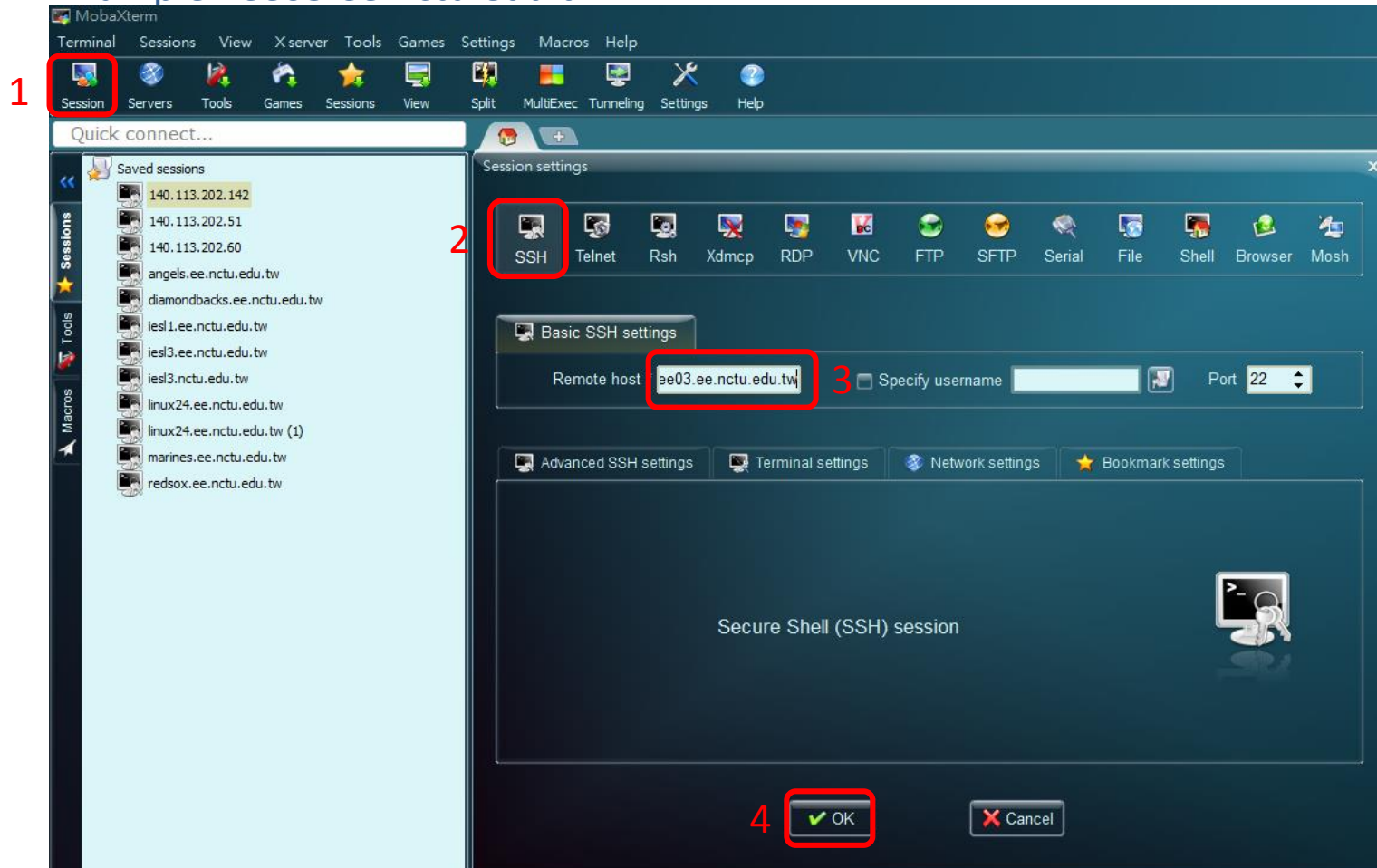


If you use MobaXterm inside your company, you should consider subscribing to [MobaXterm Professional Edition](#): your subscription will give you access to professional support and to the "Customizer" software. This customizer will allow you to generate personalized versions of MobaXterm including your own logo, your default settings and your welcome message. Please [contact us](#) for more information.

Terminal : MobaXterm

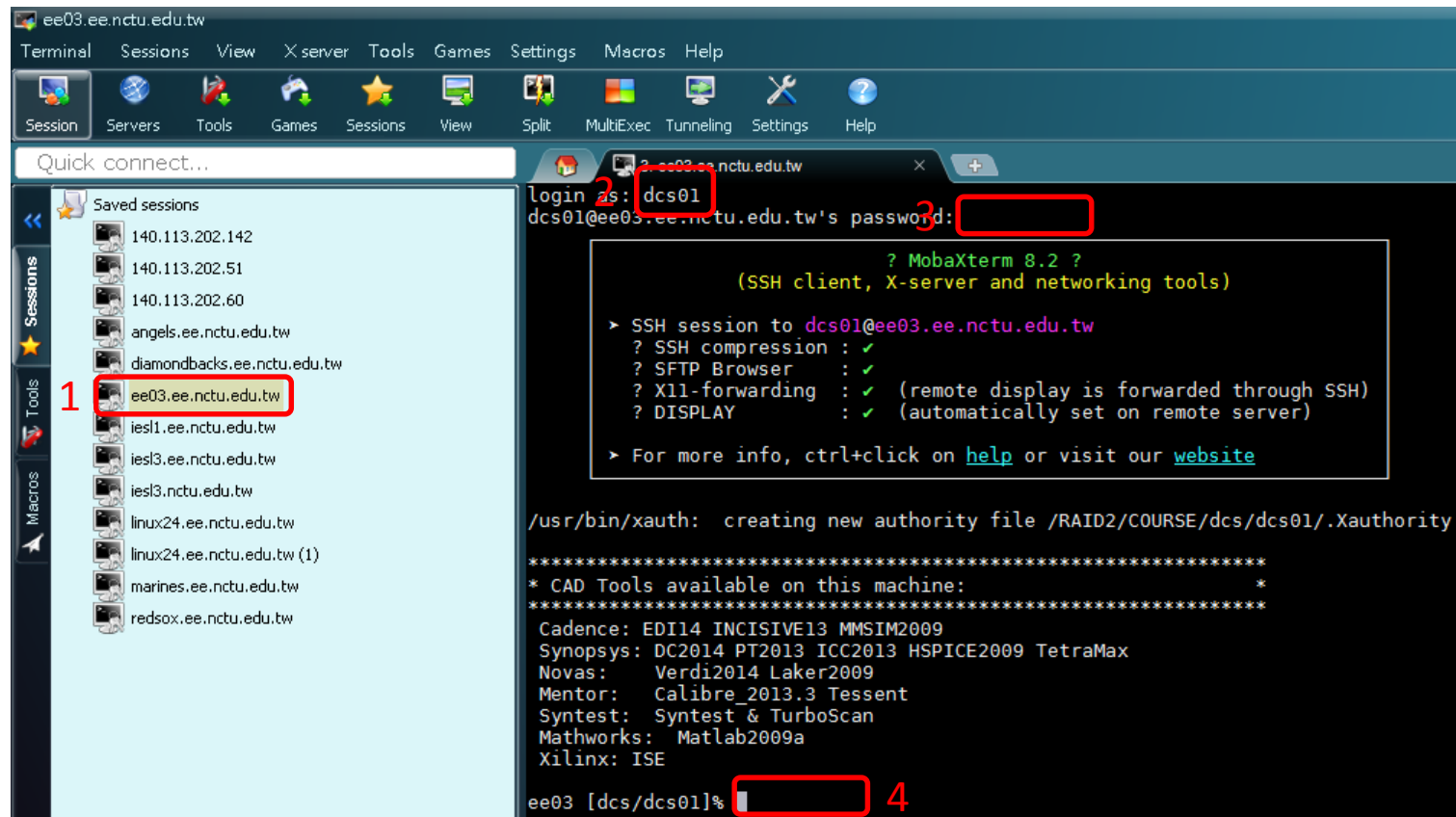
- Add terminal address

- Terminal address : linux01~linux35, ee01~ee10
- Example : ee03.ee.nctu.edu.tw



Login to the terminal : MobaXterm

- **Account : dcs01~dcs90**
 - Check [dcs_workstation.pdf](#)
- **Default password :**
 - dcsdcs



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Command

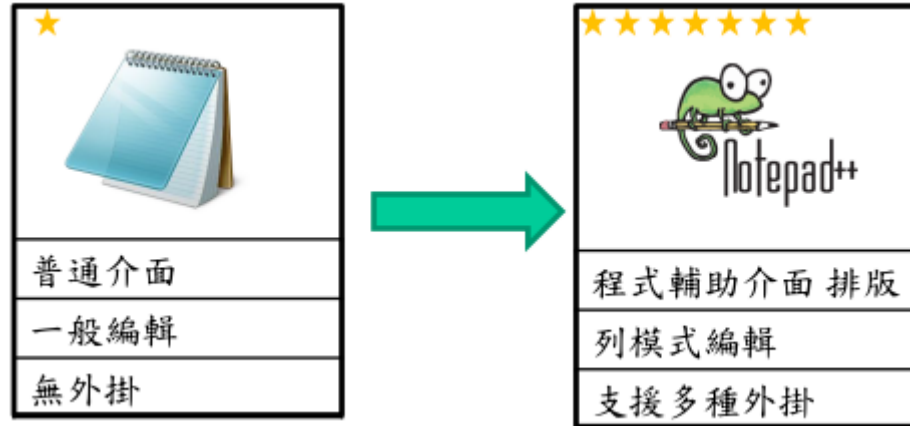
| 指令 | 英文 | 作用 |
|--|------------------|------------|
| ls | list | 列舉資料夾中的檔案 |
| cd | change directory | 改變現在的資料夾路徑 |
| mkdir | make directory | 新增資料夾 |
| rm | remove | 移除檔案, 資料夾 |
| cp | copy | 複製檔案, 資料夾 |
| mv | move | 移動檔案, 資料夾 |
| tar | | 壓縮/解壓縮 |
| 移除資料夾: rm 可以移除檔案, 無法移除資料夾。rm -f 兩個都能移除。 解壓縮: tar -xvf [來源壓縮檔] 移到上一層資料夾: cd .. 自動完成: tab鍵可以幫你少打一點字! 背景執行: 在指令後面加上 &, 能讓他背景執行! | | |

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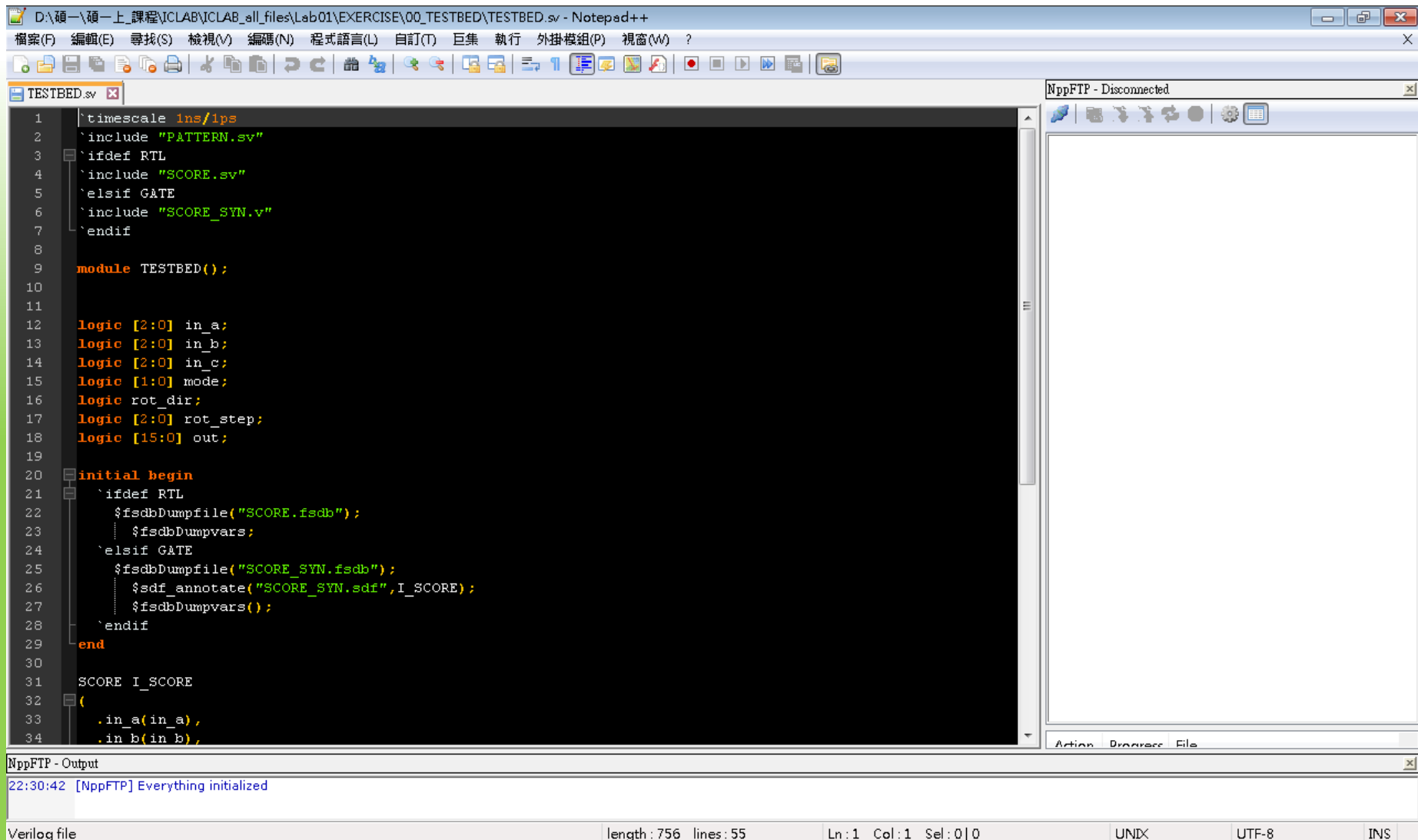
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Notepad++

- Easier to edit
- Support many plug-in



GUI

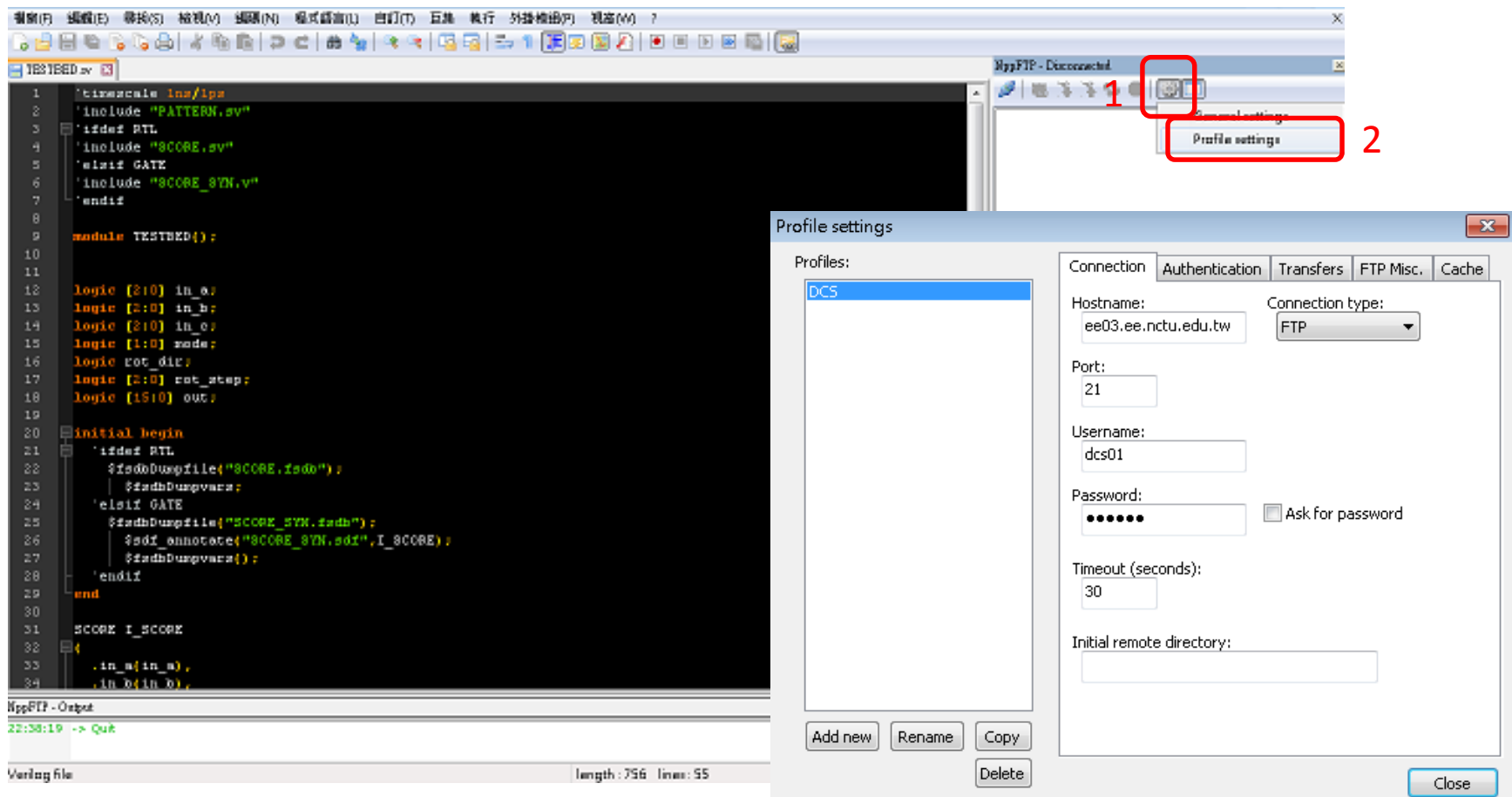


Support many plug-in

- Plug-in

- NppFTP

- The same as edit on the terminal



Another choice

- **vim**
 - Edit on the terminal directly
- You can reference the 鳥哥
 - http://linux.vbird.org/linux_basic/0310vi.php

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Introduction to nWave

- **An EDA tool which shows waveform of your hardware design**

How to open nWave in the workstaion

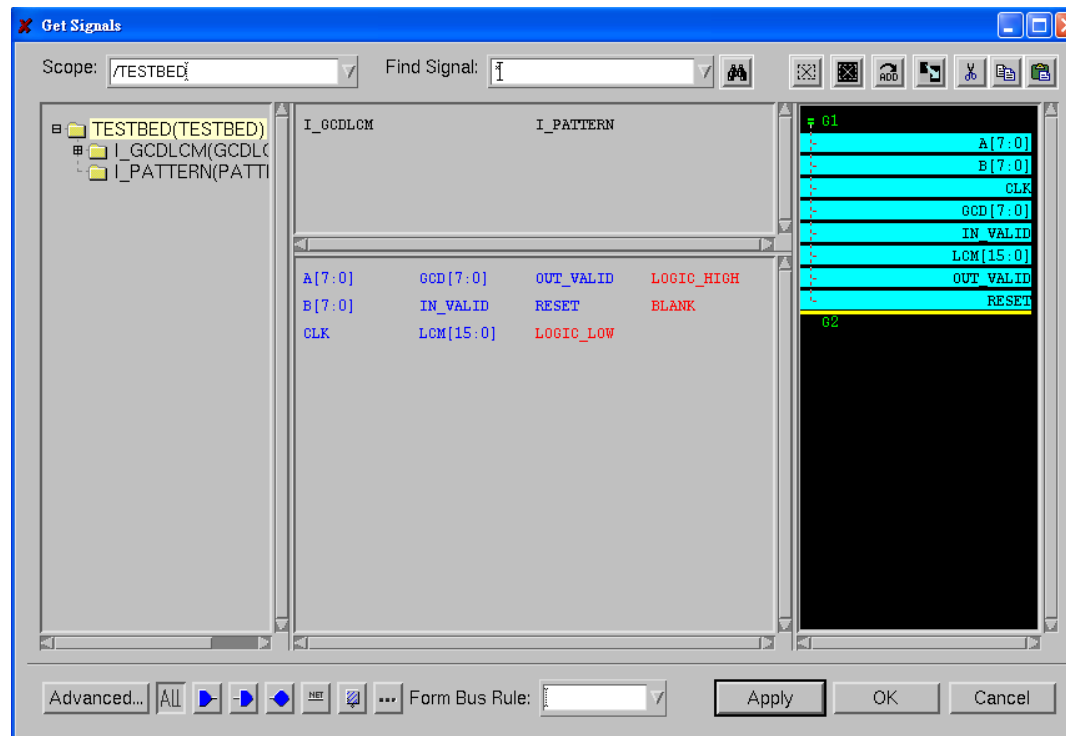
- Command : **nWave &** or **nWave**

```
[rockies]~/2007_winter_training/example > ls
DW_div.v DW_div_function.inc GCDLCM.v PATTERN.v TESTBED.v nWaveLog
[rockies]~/2007_winter_training/example > nWave &
[1] 26627
[rockies]~/2007_winter_training/example > logDir = /home/2006/jcchan/2007_winter_t
aveLog

nWave - A Universal Waveform Analysis Tool, Release 2006.04v1 (Linux) 04/17/2006
Copyright (C) 1996 - 2006 by Novas Software, Inc.
rcfile = /usr/cad/spring_soft/verdi/cur/etc/novas.rc
█
```

Get Signal

- **Open file**
 - File -> Open -> xxx.fsdb -> ok
- **Get signal**
 - Signal -> get signals -> [choose your signals] -> apply -> ok
- **Example**

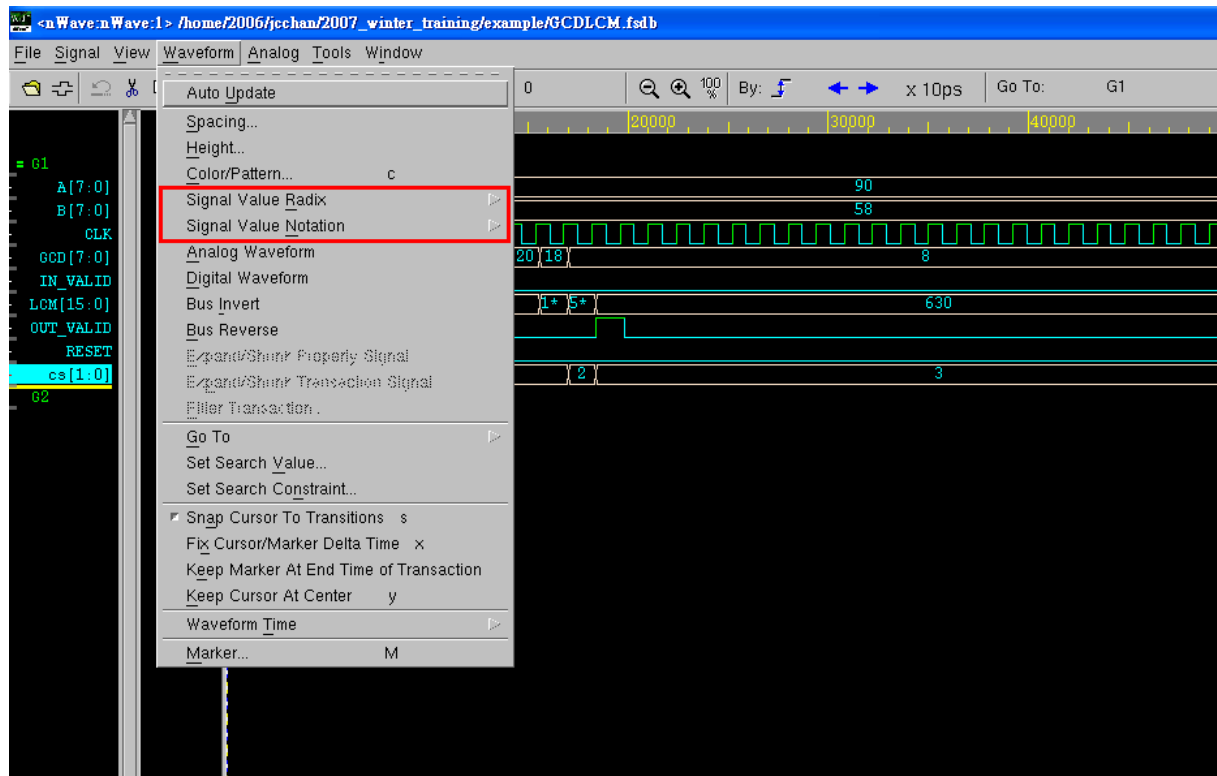


Reload

- **File -> Reload**
 - After refreshing your .fsdb file, you can use “ Reload ” to modify waveform.
 - There is no need to open .fsdb file again

Signal Value Notation and Radix

- Signal Value Notation
 - Waveform -> signal value notation
 - Signed, unsigned and so on
- Signal Value Radix
 - Waveform -> signal value radix
 - binary, decimal , hex and so on



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Homework rule

1. HW會在星期三的晚上6:00公布在e3上
2. 上機課的時候將作業寫完，有額外bonus
3. HW做完必須上傳到e3，Deadline 為下禮拜上機課下課前
4. HW會在下一次的上機課Demo，沒過下課前都可以重複Demo
5. 上機課請假次數最多三次，請假的同學，TA會幫你Demo
6. 嚴禁抄襲，抓到該次作業 0 分
7. 超過Deadline，0 分計算