



screen

X

tmux

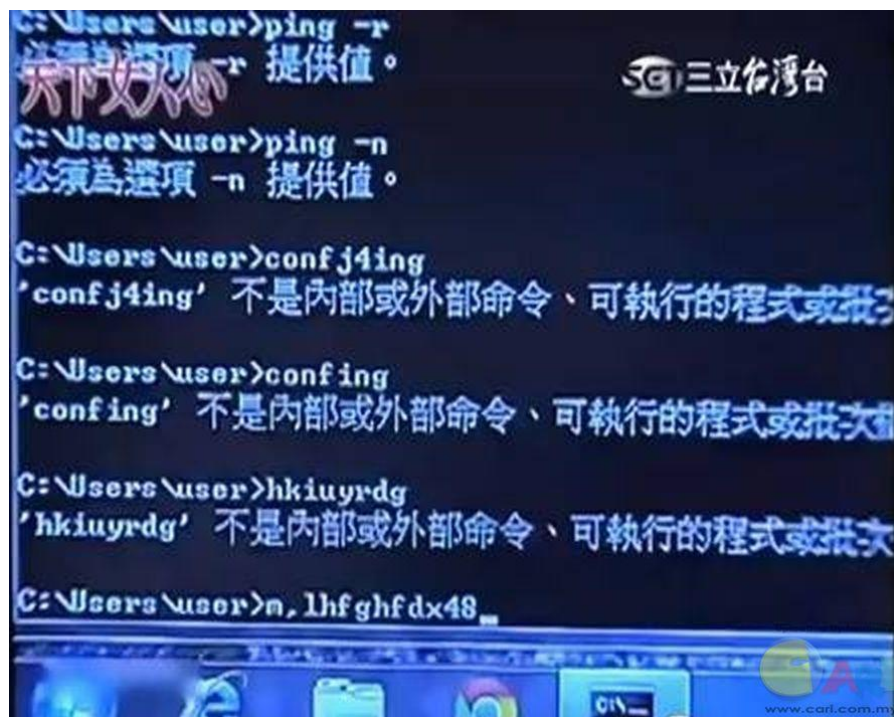
X

irssi

darkx

We love terminals

- ❑ Real geeks use CLI
 - ❑ looks cool (fg=green, bg=black, transparency)
 - ❑ no one knows how to use your computer
 - ❑ break in firewalls easily (?)



```
C:\Users\user>ping -r
必須為選項 -r 提供值。

C:\Users\user>ping -n
必須為選項 -n 提供值。

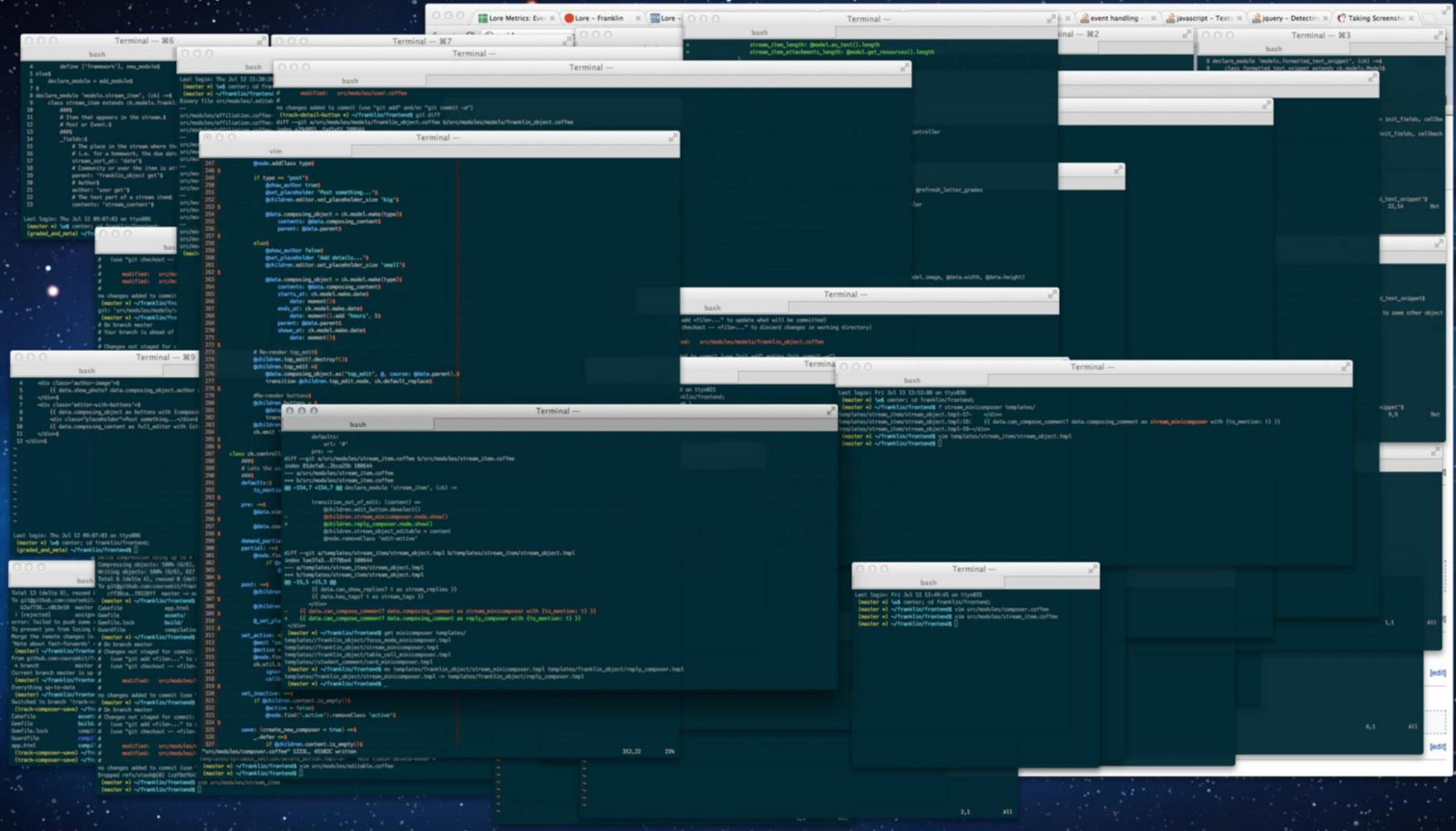
C:\Users\user>conf j4ing
'conf j4ing' 不是內部或外部命令、可執行的程式或批處理檔案。

C:\Users\user>conf ing
'conf ing' 不是內部或外部命令、可執行的程式或批處理檔案。

C:\Users\user>hkiuyrdg
'hkiuyrdg' 不是內部或外部命令、可執行的程式或批處理檔案。

C:\Users\user>n, lhfghfdx48
```

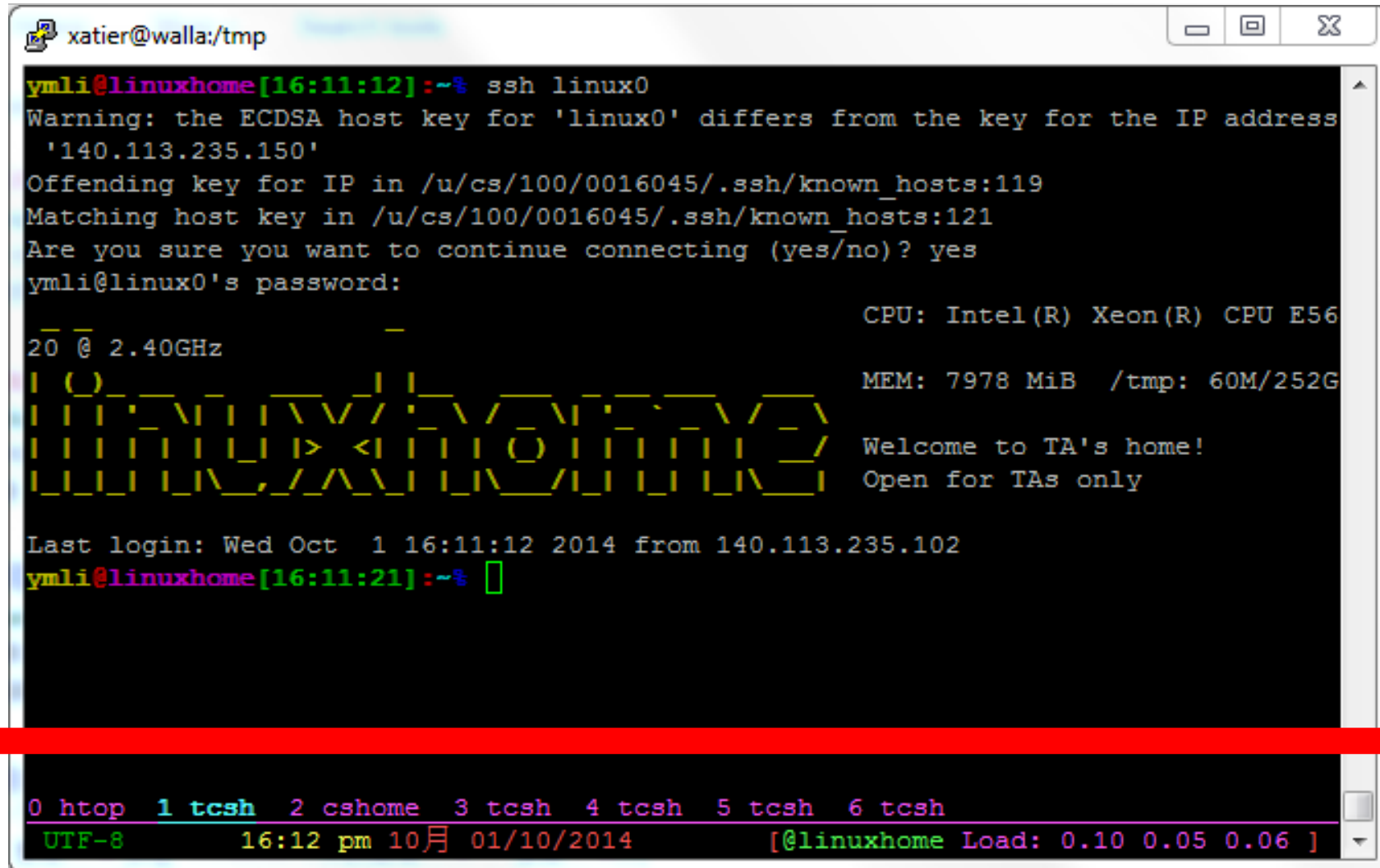
Booooooom!



Terminal multiplexer



GNU/Screen

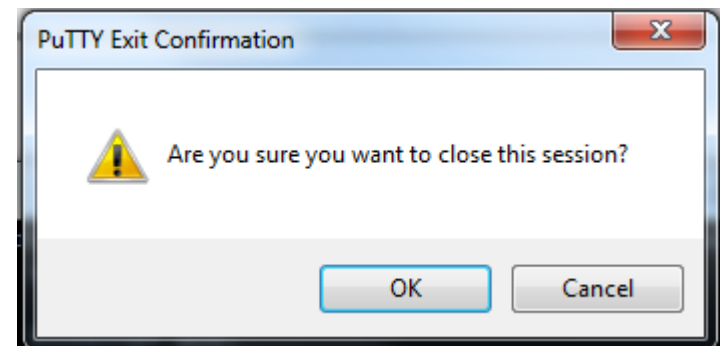
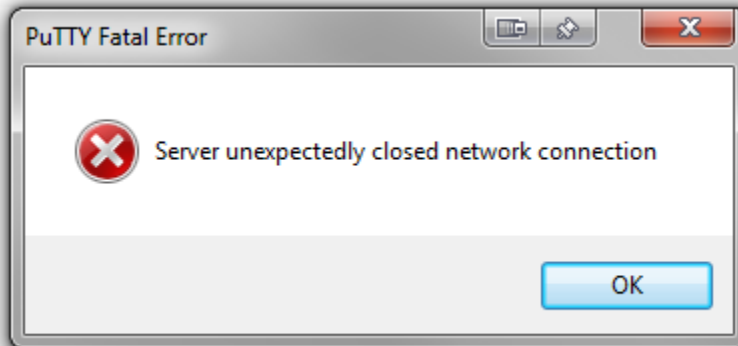


```
xatier@walla:/tmp
ymli@linuxhome[16:11:12]:~% ssh linux0
Warning: the ECDSA host key for 'linux0' differs from the key for the IP address
'140.113.235.150'
Offending key for IP in /u/cs/100/0016045/.ssh/known_hosts:119
Matching host key in /u/cs/100/0016045/.ssh/known_hosts:121
Are you sure you want to continue connecting (yes/no)? yes
ymli@linux0's password:
CPU: Intel(R) Xeon(R) CPU E56
MEM: 7978 MiB /tmp: 60M/252G
20 @ 2.40GHz
Welcome to TA's home!
Open for TAs only
Last login: Wed Oct 1 16:11:12 2014 from 140.113.235.102
ymli@linuxhome[16:11:21]:~%

0 htop 1 tcsh 2 cshome 3 tcsh 4 tcsh 5 tcsh 6 tcsh
UTF-8 16:12 pm 10月 01/10/2014 [@linuxhome Load: 0.10 0.05 0.06 ]
```

Why you need that?

- ❑ Don't need several terminals any more
 - ❑ create several “windows” or “panes” under one ssh session
- ❑ Detach/attach different sessions
 - ❑ you can attach back to your working session even you got disconnected



Basic usage (tmux)

Prefix key: Ctrl-B

Ctrl-B c	create a new window
Ctrl-B &	kill the current window
Ctrl-B n	next window
Ctrl-B p	previous window
Ctrl-B #N	select #N window
Ctrl-B d	detach the current client
Ctrl-B ?	list all key bindings
Ctrl-B l	move to the previously selected window
Ctrl-B w	window list
Ctrl-B ,	rename window title

Basic usage (tmux)

Prefix key: Ctrl-B

Ctrl-B "	split (top and bottom)
Ctrl-B %	split (left and right)
Ctrl-B x	kill the current pane
Ctrl-B Ctrl [\leftarrow \uparrow \downarrow \rightarrow]	resize the current pane
Ctrl-B Alt [\leftarrow \uparrow \downarrow \rightarrow]	resize the current pane
Ctrl-B q	display pane indexes
Ctrl-B t	show the time
Ctrl-B o	select the next pane
Ctrl-B [\leftarrow \uparrow \downarrow \rightarrow]	go to [\leftarrow \uparrow \downarrow \rightarrow] pane

Basic usage (screen)

Prefix key: Ctrl-A

Ctrl-A c	create a new window
Ctrl-A k	kill the current window
Ctrl-A "	window list
Ctrl-A A	change window title
Ctrl-A #N	select #N window
Ctrl-A n	next window
Ctrl-A p	previous window
Ctrl-A Ctrl-x	lock screen

Get a fancy one

```

screen
top - 20:49:57 up 2:53, 9 users, load average: 0.00, 0.01
Tasks: 96 total, 1 running, 95 sleeping, 0 stopped,
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, 0.0 wa, 0.0 h
KiB Mem: 514396 total, 311912 used, 202484 free, 1
KiB Swap: 392188 total, 0 used, 392188 free, 20

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM
   1 root        20   0   2280   728   628  S   0.0   0.1
   2 root        20   0     0     0     0  S   0.0   0.0
   3 root        20   0     0     0     0  S   0.0   0.0
   4 root        20   0     0     0     0  S   0.0   0.0
   6 root        rt    0     0     0     0  S   0.0   0.0
   7 root        rt    0     0     0     0  S   0.0   0.0
   8 root         0  -20     0     0     0  S   0.0   0.0
   9 root         0  -20     0     0     0  S   0.0   0.0
  10 root        20   0     0     0     0  S   0.0   0.0
89 $ UTF-8 top
Group: Main
  Num  Flags  Title          Hardstatus
  ---  ---
  0$   zsh
  1$   zsh
  2$   zsh
  3$   zsh
  4$   zsh
  98   Monitor
  88$   echo-sd
  89$   top

wheezy [88] ~ 732 % which wget && wget -q -O- 'http://www.osstech.co.jp/cgi-bin/echo-sd?scripts=&options=text'
_人人人人_
> 突然の死 <
_Y^Y^Y^Y^Y^
wheezy [88] ~ 734 %
88 $ UTF-8 echo-sd

:screen (zsh): /usr/bin/zsh

1 $ UTF-8 zsh << copy/scrollback mod
wheezy [2] ~ 732 % echo here is current window
here is current window
wheezy [2] ~ 733 %

2 $ UTF-8 zsh

:screen (zsh): /usr/bin/zsh
wheezy [3] ~ 732 %

:screen (zsh): /usr/bin/zsh
wheezy [4] ~ 732 %

99 UTF-8 Main
05/18 20:49:58 wheezy 0-$ zsh 1$ zsh 2$ zsh 3$ zsh 4$ zsh 98 Monitor (0.00 0.01 0.05)

```

Configurations

- ❑ Lots of people share their configs on github
 - ❑ <https://github.com/search?q=screenrc>
 - ❑ <https://github.com/search?q=tmux.conf>
 - ❑ try to write your own configs and share that
- ❑ `tmux` (`~/ .tmux.conf`)
 - ❑ status bar
- ❑ `screen` (`~/ .screenrc`)
 - ❑ Caption
 - ❑ Hardstatus

Session management

❑ Attach sessions

- ❑ `tmux attach`
- ❑ `screen -rd`

❑ Detach sessions

- ❑ `Ctrl-B d`
- ❑ `Ctrl-A d`

❑ Keep online

- ❑ `ssh bbsu@ssh.bs2.to`
- ❑ `ssh bbsu@ptt.cc`
- ❑ IRC

IRC

- ❑ What is that?
 - ❑ Internet Rely Chat
 - ❑ tree structured network
- ❑ Talk to other hackers around the world
 - ❑ find nice people
 - ❑ join international projects
 - ❑ learning English (?)
- ❑ Better than other IMs
- ❑ Clear protocol, easy to write a bot
- ❑ Lots of clients

famous IRC networks

- ❑ Freenode
- ❑ OFTC
- ❑ Rizon
- ❑ undernet
- ❑ EFnet
- ❑ QuakeNet

IRC clients

- ❑ irssi (<http://www.irssi.org/>)
- ❑ weechat (<http://weechat.org/>)
- ❑ xchat (<http://xchat.org/>)
- ❑ konversation (<https://konversation.kde.org/>)
- ❑ irccloud (<https://www.irccloud.com/>)
- ❑ colloquy (<http://colloquy.info/>)
- ❑ ... etc

irssi

- ❑ A very popular open sourced irc client
- ❑ CLI based, easy to use with tmux/screen
- ❑ Well documented
- ❑ Lots of themes / pluggins ...

irssi commands

connect to a IRC Server: `/connect chat.freenode.net`
join a channel: `/join #nctuNASA ILoveCSCC`
change nickname: `/nick Super-h4cker`
leave current channel: `/window close`
private chatting: `/msg <nick> blablabla`
quit irssi: `/quit`

register your nickname to the network:

```
/msg NickServ REGISTER <password>  
/msg NickServ IDENTIFY <password>
```

switch windows:

`Alt + #N` or `Alt + [← →]`

irssi doc: start up

- ❑ <http://www.irssi.org/documentation/startup>
- ❑ channel encoding
- ❑ auto join
- ❑ logging
- ❑ theme
- ❑ plugins
- ❑ ... etc

- ❑ `~/ .irssi/config`

Join US!

- ❑ Network: Freenode
- ❑ Channel: #nctuNASA
- ❑ Password: **ILoveCSCC**

Feel free to ask any questions about SA/NA :)

Some Taiwan channels

- ❑ #cschat.tw
- ❑ #haskell.tw
- ❑ #g0v.tw
- ❑ #emacs.tw
- ❑ #yinwang.talk
- ❑ #tcffm
- ❑ #python.tw
- ❑ #golang.tw
- ❑ #ubuntu-tw
- ❑ #perl.tw
- ❑ oftc/#dot

Reference

- ❑ <http://www.gnu.org/software/screen/manual/screen.html>
- ❑ <http://www.openbsd.org/cgi-bin/man.cgi/OpenBSD-current/man1/tmux.1?query=tmux&sec=1>
- ❑ <http://www.irssi.org/documentation>
- ❑ <http://lzy-blah.blogspot.tw/2007/08/screen-irssi-irc-q.html>