

Mr. Opengate

Work hard, play harder, love hardest.

終端機管理工具：tmux

於 [12/21/2017 07:32:00 下午](#)
標籤：[Software Development-Linux/Unix](#)

```
http://apina.nupshost.com/medium/m_2298.jpg | #obsd: it really is the ab
19:12 < sng> Nich: I notice you are a disloyal fucker who I hate with
all my might.
19:12 < Nich> I am?
19:13 < sng> You are!
19:13 < sng> The screenshot for tmux is no longer of #obsd.
19:13 < sng> I feel jilted.
19:13 < sng> Here I am pimping your stuff and I don't even get to be in
the screenshot!
19:13 < sng> Bitch!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
19:13 < Nich> oh that was an old screenshot
19:14 < Nich> send me a replacement screenshot
19:15 < Nich> i'll take one myself
19:15 < sng> I don't have one nearly that cool or I would.
19:15 < sng> :)
19:15 < sng> Mostly I just wanted an excuse to tell you you're a bad
person and should feel bad.
19:17 < Nich> okay shit maybe i shouldn't put this one up
19:18 < sng> I have 5.3567 trillion things to do and can't do any of
them till I have a letter.
19:18 < Nich> :-/
19:19 < sng> It'll be a very busy two weeks.
[Nich(ei)] [4:freenode/#obsd (+JcglN 3,3 50)] [Act: 1,3,5]
[#obsd]
[0] 0:lrssi* 1:silc 2:ksh-
nicholas@jelena 0 0 ~$ emacs .pekum/
nicholas@jelena 0 0 ~$ emacs .pekum/
nicholas@jelena 0 0 ~$ ssh natasha
nicholas@natasha 0 ~$ emacs .pekum/
nicholas@natasha 0 ~$ exit
Connection to natasha closed.
nicholas@jelena 0 0 ~$

documents/
dos/
ebooks/
elite/
files/
images/
lpmatch.diff
irc/
language/
libevent-readln.diff
libevent14.diff
mail/
music/
nc.diff
nc1.diff
nc2.diff
ncurses-57.diff.gz
ncurses-infocmp.diff.gz
ncurses-libcurses.diff.gz
ncurses-libform.diff.gz
ncurses-libmenu.diff.gz
ncurses-libpanel.diff.gz
ncurses-systat.diff.gz
ncurses-tic.diff.gz
ncurses-tset.diff.gz
notes/
open-university/
nicholas@jelena 0 0 ~$

src@
systems/
termtypes.py
test.c
tip-notes
tip-poll.diff
tmp/
tmux-hooks.diff
tmux-martynas-etcsdells.diff
tmux-nohup.diff
tmux-paste.diff
tmux-print.diff
tmux-procname.diff
tmux-servtim.diff
tmux-tmux1.diff
tmux-visual.diff
torrent/
training/
tty.diff
video@
video-disk@
windows/
wombatns
work/
www@
x
x__PW

Playlist Volume 50%
The Cranberries/The Cranberries - (1994) No Need To Argue - 01 - Ode To M
The Cranberries/The Cranberries - (1994) No Need To Argue - 02 - I Can't
The Cranberries/The Cranberries - (1994) No Need To Argue - 03 - Twenty O
The Cranberries/The Cranberries - (1994) No Need To Argue - 04 - Zombie.m
The Cranberries/The Cranberries - (1994) No Need To Argue - 05 - Empty.m
The Cranberries/The Cranberries - (1994) No Need To Argue - 06 - Everythi
The Cranberries/The Cranberries - (1994) No Need To Argue - 07 - The Icic
The Cranberries/The Cranberries - (1994) No Need To Argue - 08 - Disappoi
The Cranberries/The Cranberries - (1994) No Need To Argue - 09 - Ridiculo
The Cranberries/The Cranberries - (1994) No Need To Argue - 10 - Dreaming
The Cranberries/The Cranberries - (1994) No Need To Argue - 11 - Yeat's G
=====0=====
Playing: berries - (1994) No Need To Argue - 03 - Twenty One. (2:46/3:08)
```

About Me



Hi! I'm Mr. Opengate.

喜歡做很酷的事，和睡覺；

相信品味和信念的不朽價值。

希望有更多機會感受這個世界：)

第一次來建議閱讀以下資訊喔！

About

Sitemap

Q & A

Changelog

之前用 tmux 的一些雜記，enjoy it!

一、tmux 簡介

程式設計師要在終端機下開發程式時（尤其 Mac 和 Unix-like 使用者），總是要使用一個高效率的終端選擇器 (terminal multiplexer)，過去的程式設計師常用的終端選擇器是 screen，但現在有更方便操作的 tmux 囉！終端選擇器主要有以下功能：

1. **輕鬆實現命令列視窗管理**：如分割視窗、視窗切換，在需要高速切換檔案的系統程式設計尤其重要，和 Unix-like 的工具尤其契合。
2. **保持工作環境狀態**：例如，當 ssh 連線遠端伺服器突然斷線時，tmux 會讓該會話 (session) 在背景執行 (detached)，只要連回該會話便可以馬上重回之前的工作環境。

因為我以前用過 screen 和 vim，所以下面的設定會調整成 screen-like 和 vim-like，直接學 tmux 或使用 emacs 的使用者也可以在網路上找到相關的設定。

二、安裝與設定檔

老樣子，用套件管理工具無腦安裝：

Facebook

Contents

▼ unfold ► fold

▼ Computer Science (128)

Algorithm (13)
Artificial Intelligence (25)
Computer Organization (5)
Computer Networks (3)
Data Mining (8)
Data Structure (6)
Deep Learning (4)
Formal Language (21)
Linear Algebra (7)
Operating System (13)
Other (5)
Probability and Statistics (8)
Software Engineering (5)
Time Series Analysis (5)

▼ Software Development (63)

Android (7)
Blogger (3)
C/Cpp (8)
Git (4)
JavaScript (2)
Linux/Unix (14)
Other (10)
Python (5)
R (5)
Vim (5)

▼ Contemporary Thought (12)

Feminism (3)
Other (3)

```
brew install tmux # Mac
apt-get install tmux # Ubuntu
which tmux # check install
tmux # start tmux world!
```

建立 .tmux.conf 設定檔，下面是我用的設定檔，因為以前是用 vim 和 screen，所以把預設的快捷鍵轉成 screen-like 和 vim-like。

```
vim ~/.tmux.conf
```

貼上以下設定完成初步設定 (註釋有解釋設定了哪些功能)：

```
### rebind hotkey

# prefix setting (screen-like)
set -g prefix C-a
unbind C-b
bind C-a send-prefix

# reload config without killing server
bind R source-file ~/.tmux.conf \; display-message "Config reloaded..."

# "|" splits the current window vertically, and "-" splits it horizontally
unbind %
bind | split-window -h
bind - split-window -v

# Pane navigation (vim-like)
bind h select-pane -L
bind j select-pane -D
bind k select-pane -U
bind l select-pane -R

# Pane resizing
```

[Radical Social Work](#) (6)

▼ [Lifestyle](#) (14)

[Balloon Modelling](#) (3)

[Music](#) (2)

[Travel](#) (4)

[Workout](#) (5)

▼ [Feedback and Other](#) (35)

[Book](#) (6)

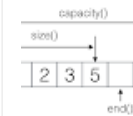
[Economics and Finance](#) (7)

[Essay](#) (13)

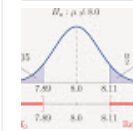
[Featured](#) (4)

[Speech](#) (5)

Popular Posts



[C/C++ - Vector \(STL\) 用法與心得完全攻略](#)



[Probability and Statistics - 假設檢定：基本流程總整理](#)
[Process of Hypothesis Testing Statistics](#)



[C/C++ - Map \(STL\) 用法與心得完全攻略](#)



[簡單學 makefile：makefile 介紹與範例程式](#)



[科技業常見的職務縮寫 SA SD RD PG PM DBA MIS QA Sales](#)

```
bind -r Left  resize-pane -L 4
bind -r Down  resize-pane -D 4
bind -r Up    resize-pane -U 4
bind -r Right resize-pane -R 4
```

```
### other optimization
```

```
# set the shell you like (zsh, "which zsh" to find the path)
# set -g default-command /bin/zsh
# set -g default-shell /bin/zsh
```

```
# use UTF8
# set -g utf8
# set-window-option -g utf8 on
```

```
# display things in 256 colors
set -g default-terminal "screen-256color"
```

```
# mouse is great!
set-option -g mouse on
```

```
# history size
set -g history-limit 10000
```

```
# fix delay
set -g escape-time 0
```

```
# 0 is too far
set -g base-index 1
setw -g pane-base-index 1
```

```
# stop auto renaming
setw -g automatic-rename off
set-option -g allow-rename off
```

```
# renumber windows sequentially after closing
set -g renumber-windows on
```

```
# window notifications; display activity on other window
setw -g monitor-activity on
set -g visual-activity on
```

port = "Basketball" C/C++ - String 用法與心得完全

攻略

sketba
2 3 4 5 6 7

Search

搜尋

RSS

發表文章

留言

Pageviews



3,208,195

三、基本概念與操作

在 tmux 操作架構中，有以下基本名詞需要認識：

- 會話 (Session)：，視窗的集合。
- 視窗 (Window)：一個覆蓋滿區塊的視窗。
- 區塊 (Pane)：一個跑特定命令的區塊，例如 shell。

```
144 c create window
145 w list windows
146 n next window
147 p previous window
148 f find window
149 , name window
150 & kill window
151
152 ## Panes (splits)
153
154 % vertical split
155 % horizontal split
156
157 o swap panes
158 q show pane numbers
159 x kill pane
160 + break pane into window (e.g. to select text by mouse to copy)
161 - restore pane from window
162 _ space - toggle between layouts
163 <prefix> q (Show pane numbers, when the numbers show up type the key to goto that pane)
164 <prefix> { (Move the current pane left)
165 <prefix> } (Move the current pane right)
166 <prefix> z toggle pane zoom
167
168 ## Misc
169
170 d detach
171 t big clock
172 ? list shortcuts
173 i prompt
174
175
176 參考链接:
177 * http://unix.stackexchange.com/questions/54/tmux-vs-gnu-screen
178
179 [nod web]: (% post_url 2015-02-24-node-vs-b-p1 %)
180 [nod web]: (% post_url 2015-02-24-node-vs-b-p1 %)
181 [nod web]: (% post_url 2015-02-24-node-vs-b-p1 %)
182 [nod web]: (% post_url 2015-02-24-node-vs-b-p1 %)
```

```
Regenerating: 1 file(s) changed at 2015-11-06 00:05:03 ...done in 0.826257 seconds.
Regenerating: 1 file(s) changed at 2015-11-06 00:06:12 ...done in 0.89288 seconds.
Regenerating: 1 file(s) changed at 2015-11-06 00:07:52 ...done in 0.976929 seconds.
→ harttle.com git:(master) # ./serve.sh
Configuration file: /Users/harttle/harttle.com/_config.yml
Source: /Users/harttle/harttle.com
Destination: /Users/harttle/harttle.com/_site
Generating...
done.
Auto-regeneration: enabled for '/Users/harttle/harttle.com'
Configuration file: /Users/harttle/harttle.com/_config.yml
Server address: http://0.0.0.0:4000/
Server running... press ctrl-c to stop.
Regenerating: 1 file(s) changed at 2015-11-06 00:13:31 ...done in 0.69735 seconds.
Regenerating: 1 file(s) changed at 2015-11-06 00:16:45 ...done in 0.947285 seconds.
Regenerating: 1 file(s) changed at 2015-11-06 00:17:08 ...done in 0.794148 seconds.
```

```
27:screen -dms redis # 建立一个detach的screen窗口
28:screen -list # 查看redis窗口的号
29:screen -r <number> # attach redis窗口
30:screen -dms node # 建立一个detach的screen窗口
31:screen -list # 查看node窗口的号
32:screen -r <number> # attach node窗口
```

```
2015-00-11-reflow-repaint.md
77: > is a measurement of the height of an element's content including
content not visible on the screen due to overflow
→ _posts git:(master) # tmux ls
blog: 1 windows (created Thu Nov 5 20:57:26 2015) [181x40] (attached)
tmy: 2 windows (created Thu Nov 5 14:05:50 2015) [181x40]
→ _posts git:(master) #
```

session、window 和 panel 示意圖 (ref)

在 tmux 中，都是按完 <prefix key> 後再按你需要的快捷指令，預設的 prefix 鍵位是 ctrl + b，我的 config 檔把它改到 screen-like 的 ctrl + a。常用的快捷指令如下：

1. 視窗指令

<prefix> c 開新視窗
<prefix> & 關閉視窗
<prefix> 0~9 切換至指定視窗
<prefix> n 切換到下一個視窗 (next)
<prefix> p 切換到上一個視窗 (previous)
<prefix> f 找尋指定 pattern 並跳到該視窗
<prefix> , 命名視窗

2. 區塊指令

<prefix> | 水平分割視窗
<prefix> - 垂直分割視窗
<prefix> 方向鍵 分割視窗大小調整
<prefix> h,j,k,l (vim 方向鍵) 切換游標所在區塊
<prefix> space 重新佈局分割視窗，內建多種佈局。
<prefix> x 關閉當前面板
<prefix> q 顯示面板編號
<prefix> { 交換面板位置（向前）
<prefix> } 交換面板位置（向後）

3. 系統操作

<prefix> d 將目前的 session 放到背景執行 (detach)
<prefix> s 切換 session
<prefix> [進入複製模式
<prefix> : 進入命令模式
<prefix> ? 查詢快捷鍵

4. 指令操作

直接在命令列上輸入指令，或在 tmux 中按下 <prefix> : 之後輸入 tmux 字串後的語句。

tmux 啓動
tmux ls 列出所有 session
tmux detach 背景執行
tmux attach -t [num] 回到第 [num] 號 session
tmux kill-session -t [num] 關閉第 [num] 號 session
tmux kill-session -a 關閉除了自己的所有 session

其他不常用的用到再看 **Cheat Sheet** :)

Tmux Cheat Sheet & Quick Reference

<http://tmuxcheatsheet.com/>

四、tmux 的套件管理工具：TPM

一個滿方便的 tmux 的套件管理工具，滿推薦的。

複製 tpm 專案：

```
git clone https://github.com/tmux-plugins/tpm ~/.tmux/plugins/tpm
```

在設定檔最後加上這些內容：

```
### tmux plugin manager

set -g @plugin 'tmux-plugins/tpm'
set -g @plugin 'tmux-plugins/tmux-sensible'
set -g @plugin 'tmux-plugins/tmux-resurrect'
set -g @plugin 'tmux-plugins/tmux-yank'
set -g @plugin 'jooize/tmux-powerline-theme'

# Initialize TMUX plugin manager (keep this line at the very bottom of tmux.conf)
run '~/.tmux/plugins/tpm/tpm'
```

重啓終端機或 `tmux source ~/.tmux.conf` 後，進入 tmux 使用以下指令：

- [prefix] + I 安裝插件
- [prefix] + U 更新插件
- [prefix] + alt + u 刪除插件

就完成囉！

References

Ham Vocke - A Quick and Easy Guide to tmux

<http://www.hamvocke.com/blog/a-quick-and-easy-guide-to-tmux/>

tpm - Tmux Plugin Manager

<https://github.com/tmux-plugins/tpm>

Harttle - 優雅地使用命令行：Tmux 終端覆用

<http://harttle.com/2015/11/06/tmux-startup.html>

Tmux Cheat Sheet & Quick Reference

<http://tmuxcheatsheet.com/>

