# 第 04 天:常用的 Git 版本控管指

本篇文章將帶大家學會幾個最重要也最基本的版控工作,其中將包含基本的檔案操作如新增、刪除、重新命名檔案,提交變更(建立新版本)、查詢歷史紀錄等工作。

# 準備工作目錄

複習一下上一篇「第 03 天:建立儲存庫」的內容,我們直接來建立一個本地儲存庫,即可開始本 篇文章的所有練習。

mkdir git-demo

cd git-demo

git init

# 新增檔案

我們在工作目錄下放一些檔案,至於放什麼檔案都可以,總之先複製一些現有的檔案與目錄進到目前的工作目錄下。

本篇文章,我將以 YEOMAN (http://yeoman.io/) 工具,快速產生一個 webapp 範例網站,只要一個指令就可以建立一個完整網站:

yo webapp

註: 關於 YEOMAN (http://yeoman.io/) 在 Windows 平台的使用,可以参考筆者的文章 如何在 Windows 平台安裝與使用 Yeoman 1.0 相關工具 (http://blog.miniasp.com/post/2013/08/11/Yeoman-1-0-Installation-and-Usage-on-Windows.aspx),該文詳述完整的安裝與使用過程。

新增了檔案之後,如果你還在 Git Shell 介面下,應該會立刻看到如下圖的提示:

```
posh~git ~ git-demo [master]
|| > dir
    目錄: C:\Users\User\Documents\GitHub\git-demo
Mode
                   LastWriteTime
                                     Length Name
           2013/9/19
                           11:38
                           11:39
                                            node_modules
           2013/9/19
2013/9/19
                           11:37
                                            test
                           11:21
                                            .bowerrc
                                           .editorconfig
                           11:21
                                        415
                           11:
                                           .gitattributes
                           11:21
                                           .gitignore
                                            jshintrc
                                      207 bower.json
12000 Gruntfile.js
                           11:21
           2013/9/19
                           11:37
           2013/9/19
                           11:37
                                        980 package.json
C:\Users\User\Documents\GitHub\git-demo [master +10 -0 -0 |]> _
```

也就是以下這段位於路徑後面的提示:

```
[master +10 ~0 -0 !]
```

在這段提示的地方,你可以看到幾個東西:

- master 代表目前工作目錄是 master 分支, 也是 Git 的預設分支名稱。
- 「紅色」的數字都代表 Untracked (未追蹤) 的檔案,也就是這些變更都不會進入版本控管。
- +10 代表有 10 個「新增」的檔案
- ~0 代表有 0 個「修改」的檔案
- -0 代表有 0 個「刪除」的檔案

如果要要將這些新增的檔案加入到 Git 版本控管, 你必須下達以下指令:

```
git add .
```

如此一來,這個工作目錄下所有的檔案、目錄與子目錄下的所有檔案,全部都會被加入到這個 Git 工作目錄的【索引】或【快取】之中。請注意: 此時並沒有建立任何版本,只是告知 Git 這些檔案「即將」被加入 Git 版本庫而已。

如下圖示,是我這邊執行完 git add . 之後的結果,這裡所發生的 warning 訊息不是很嚴重,有興趣了解的人可以參考筆者的另一篇文章: Git 在 Windows 平台處理斷行字元 (CRLF) 的注意事項 (http://blog.miniasp.com/post/2013/09/15/Git-for-Windows-Line-Ending-Conversion-Notes.aspx)。

```
posh~git ~ git-demo [master]
    C:\Users\User\Documents\GitHub\git-demo [master warning: LF will be replaced by CRLF in .bowerrc. The file will have its original line endings in y
                                                                                                                                                                                                                                                                                                                                                                        📗> git add .
    The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in .editorconfig.
The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in .gitignore.
The file will be replaced by CRLF in .jshintrc.

The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in Gruntfile.js.

The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in app/.htaccess.

The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in app/404.html.

The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in app/index.html.

The file will have its original line endings in your working directory. Warning: LF will be replaced by CRLF in app/index.html.

The file will have its original line endings in your working directory.
   warning: LF will be replaced by CRLF in app/robots.txt.
The file will have its original line endings in your working directory.
The file will have its original line endings in your working directory.
Warning: LF will be replaced by CRLF in app/scripts/app.js.
The file will have its original line endings in your working directory.
Warning: LF will be replaced by CRLF in app/scripts/main.js.
The file will have its original line endings in your working directory.
Warning: LF will be replaced by CRLF in app/styles/main.scss
 The file will have its original line endings in your working directory. Warning: LF will be replaced by CRLF in app/scripts/main.js.

The file will be replaced by CRLF in app/styles/main.scss.

The file will have its original line endings in your working directory. Warning: LF will be replaced by CRLF in bower.json.

The file will have its original line endings in your working directory. Warning: LF will be replaced by CRLF in bower.json.
    warning: LF will be replaced by CRLF in package.json.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in test/index.html.
  warning: LF will be replaced by CRLF in test/index.html.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in test/lib/chai.js.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in test/lib/expect.js.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in test/lib/mocha/mocha.css.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in test/lib/mocha/mocha.js.
The file will have its original line endings in your working directory.
warning: LF will be replaced by CRLF in test/spec/test.js.
The file will have its original line endings in your working directory.
C:\Users\User\Documents\GitHub\git-demo [master +23 > 0 - 0]>
```

不過有趣的地方在於,原本「紅色的數字」現在卻變成了「綠色的數字」,這裡所代表的意義是:

- 「綠色」的數字都代表 Staged (準備好) 的檔案,也就是這些變更才會進入版本控管。
- +23 代表有 23 個「新增」的檔案將被建立一個版本
- ~0 代表有 0 個「修改」的檔案將被建立一個版本
- -0 代表有 0 個「刪除」的檔案將被建立一個版本

但原本不是只有 +10 (紅色) 而已嗎? 怎麼執行完後變成了 +23 (綠色) 呢?

我們執行 git reset 重設一下工作目錄的索引狀態,然後再執行一次 git status 查詢當前工作目錄的詳細狀態,如下圖示:

```
posh~git ~ git-demo [master]

C:\Users\User\Documents\GitHub\git-demo [master +23 -0 -0]> git reset

C:\Users\User\Documents\GitHub\git-demo [master +23 -0 -0]> git reset

C:\Users\User\Documents\GitHub\git-demo [master +23 -0 -0]> git status

# on branch master

# Initial commit

# Untracked files:

# (use "git add <file>..." to include in what will be committed)

# .bowerc

# .gitatributes

# .gitignore

# .gitignore

# .jshintrc

# Gruntfile.js

# app/

# bower.json

# package.json

# test/

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\User\Documents\GitHub\git-demo [master = 40 -0 -0]>
```

你可以發現,這邊列出的只有「第一層目錄下的檔案與目錄」而已,因為 git 不會這個時候去查到 底目錄下到底有多少檔案沒有被追蹤。

當我們執行 git add . 之後,再執行一次 git status 查詢狀態,你可以發現連子目錄下的檔案 也都全部被加入了,所以這個數字才會變多,如下圖示:

```
\Users\User\Documents\GitHub\git-demo<mark> [master</mark>
                                                                                                     ]> git status
   On branch master
   Initial commit
#
  Changes to be committed:
   (use "git rm --cached <file>..." to unstage)
#
###
             new file:
new file:
new file:
######
                                  app/favicon.ico
app/index.html
app/robots.txt
             new file:
new file:
                                  app/scripts/app.js
app/scripts/hello.coffee
app/scripts/main.js
*****
                                  bower.json
package.json
             new file:
new file:
                                  test/index.html
test/lib/chai.js
test/lib/expect.js
test/lib/mocha/mocha.css
#
#
C:\Users\User\Documents\GitHub\git-demo [master
```

# 新增部分檔案

剛剛提到的 git add. 指令會自動將所有檔案(含子目錄的檔案)加入到工作目錄索引中,有時候我們只想讓特定目錄或特定檔案加入版本,這時你也可以指定特定目錄,或利用萬用字元來加入檔案。

我們再執行一次 git reset 重設工作目錄的索引狀態,然後用 git add app 加入 app 這個資料 夾與其下的所有檔案,還有用 git add .\* 新增所有「點」開頭的檔案,如下圖示:

```
:\Users\User\Documents\GitHub\git-demo
                                                                                                                                                                                           ]> git reset
    ]> dir
               目錄: C:\Users\User\Documents\GitHub\git-demo
                                                                  LastWriteTime
 Mode
                                                                                                                            Length Name
                                                                             下午 11:38
  d----
                                        2013/9/19
                                                                          下午 11:38
下午 11:39
下午 11:37
下午 11:21
下午 11:21
                                        2013/9/19
  d----
                                                                                                                                                   node_modules
                                       2013/9/19
2013/9/19
2013/9/19
2013/9/19
2013/9/19
2013/9/19
2013/9/19
2013/9/19
2013/9/19
2013/9/19
  d----
                                                                                                                                                   test
   -a---
                                                                                                                                         44 .bowerrc
                                                                                                                                     415 .editorconfig
   -a---
                                                                         下午 11:21
下午 11:21
下午 11:21
下午 11:21
下午 11:37
                                                                                                                                        11 .gitattributes
   -a---
                                                                                                                               56 .gitignore
411 .jshintrc
207 bower.json
12000 Gruntfile.js
   -a---
   -a---
    -a---
   -a---
   -a---
                                                                                            11:37
                                                                                                                                      980 package.json
C:\Users\User\Documents\GitHub\git-demo [master +9 =0 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 =0 | 20 
  C:\Users\User\Documents\GitHub\git-demo<mark> [master</mark>
                                                                                                                                                                                                                                     15
          ]> git status
       On branch master
       Initial commit
      Changes to be committed:
   (use "git rm --cached <file>..." to unstage)
 #
                          new file:
new file:
 #
 #
 #
#
 #
#
                                                                 app/favicon.ico
app/index.html
app/robots.txt
 #
 #
                                                                 app/scripts/app.js
app/scripts/hello.coffee
app/scripts/main.js
                          new file:
new file:
 #
 #
       Untracked files:
               (use "git add <file>..." to include in what will be committed)
  C:\Users\User\Documents\GitHub\git-demo [master +14 ~0 ~0 | ~4 ~0 ~0 |]>
```

在執行的過程中,你應該可以發現,在執行 git add 的過程中,Git Shell 提示的文字也有了些變化,現在同時出現了「綠色的數字」與「紅色的數字」,所代表的意思跟上述是一樣的,是不是非常方便辨識!當你需要知道詳情才需要執行 git status 指令。

註:詳細的指令與參數說明,可以輸入 git help add 查詢完整的文件。

# 提交變更/建立版本

這時我們預計要建立一個新版本了,在建立版本之前,我們還是把所有檔案給加入吧,請各位在執行一次 git add . 命令。

建立版本的指令如下:

git commit git commit -m "版本紀錄的說明文字"

在 Git 版本控管中,所有的版本都必須擁有「版本紀錄的說明文字」(簡稱 Log),不像 Subversion 預設可以簽入「沒有版本紀錄說明」的版本。所以當你直接輸入 git commit 的話,預設會開啟 Notepad (記事本) 讓你輸入這個版本的訊息。開啟後的檔案會有很多 # 符號開頭的文字,這些都是註解,不會成為 Log 的一部分。

如下圖示,是我輸入的訊息文字:

```
* vhvpzwam.ier.txt - Notepad2
<u>File Edit View Settings ?</u>
1 第一次建立版本,內容是 yeoman 建立的 webapp 專案
 2 # Please enter the commit message for your changes. Lines starting
 3 # with '#' will be ignored, and an empty message aborts the commit.
 4 # On branch master
 6# Initial commit
 7 #
 8 # Changes to be committed:
       (use "git rm --cached <file>..." to unstage)
 10 #
                   .bowerrc
       new file:
 11 #
       new file:
                   .editorconfig
 12 #
       new file:
                   .gitattributes
 13 #
       new file:
                  .gitignore
 14 #
       new file:
                   .jshintrc
 15 #
       new file:
 16 #
                   Gruntfile.js
       new file:
                   app/.htaccess
 17 #
 18 #
       new file:
                   app/404.html
 19#
       new file:
                   app/favicon.ico
       new file:
                   app/index.html
 20 #
       new file:
                   app/robots.txt
 21 #
       new file:
                   app/scripts/app.js
 22 #
       new file:
                   app/scripts/hello.coffee
 23 #
       new file:
                   app/scripts/main.js
 24 #
       new file:
                   app/styles/main.scss
 25 #
       new file:
                   bower.json
       new file:
                   package. json
 27 #
       new file:
                 test/index.html
 28#
       new file: test/lib/chai.js
 29 #
       new file: test/lib/expect.js
 30 #
       new file: test/lib/mocha/mocha.css
 31 #
       new file:
                   test/lib/mocha/mocha.js
 32 #
       new file:
                   test/spec/test.js
 33 #
 34 #
Ln 1:36 Col 1 Sel 64
                            1.02 KB
                                        UTF-8 Signature | CR+LF | INS
                                                               Default Te:
```

當你按下 Ctrl+S 儲存這個文字檔,這時還不會建立一個新版本,還必須關閉這個 Notepad 視窗,這時才會正式建立版本,如下圖示:

```
posh~git ~ git-demo [master]
  ]> git commit
C:\Users\User\Documents\GitHub\git-demo [master +23 = 0 = 0]> git commit [master (root-commit) 00ad227] 第一次建立版本,內容是 yeoman 建立的 web warning: LF will be replaced by CRLF in .bowerrc.
The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in .editorconfig.
The file will have its original line endings in your working directory. warning: LF will be replaced by CRLF in .gitignore.
The file will have its original line endings in your working directory. Warning: LF will be replaced by CRLF in .jshintrc.
                                                                                次建立版本,內容是 yeoman 建立的 webapp 專案
F in bowerrc.
                                                                                    in .jshintrc.
endings in your working directory.
The file will have its original
                                                                         line
warning: LF will be replaced by CRLF
The file will have its original line
warning: LF will be replaced by CRLF
                                                                                     in Gruntfile.js.
                                                                                    endings in your working directory.
in app/.htaccess.
                                                                                    endings in your working directory. in app/404.html.
The file will have its original line
The file will have its original line warning: LF will be replaced by CRLF The file will have its original line warning: LF will be replaced by CRLF The file will have its original line warning: LF will be replaced by CRLF The file will have its original line warning: LF will be replaced by CRLF The file will have its original line warning: LF will be replaced by CRLF The file will have its original line The file will have its original line
                                                                                     endings in your working directory.
                                                                                    in app/index.html.
                                                                                    endings in your working directory.
                                                                                    in app/robots.txt.
endings in your working directory.
                                                                                    in app/scripts/app.js.
endings in your working directory.
in app/scripts/main.js.
                   will have its original
                                                                         line
                                                                                     endings in your working directory.
                    LF will be replaced by CRLF
will have its original line
LF will be replaced by CRLF
                                                                                     in app/styles/main.scss.
warning: LF
                                                                                     endings in your working directory.
warning: LF will be replaced by
                                                                                    in bower.json.
The file will have its original line
                                                                                     endings in your working directory.
warning: LF will be replaced by
The file will have its original
                                                                                     in package.json.
endings in your working directory.
                                                                         CRLF
                                                                        line
warning: LF will be replaced by CRLF
The file will have its original line
warning: LF will be replaced by CRLF
The file will have its original line
                                                                                    in test/index.html.
                                                                                    endings in your working directory.
in test/lib/chai.js.
                                                                                    endings in your working directory.
in test/lib/expect.js.
endings in your working directory.
in test/lib/mocha/mocha.css.
warning: LF will be replaced by CRLF
The file will have its original line
warning: LF will be replaced by CRLF
warning: LF will have its original line endings in your working directory.
Warning: LF will be replaced by CRLF in test/lib/mocha/mocha.js.
The file will have its original line endings in your working directory.
Warning: LF will be replaced by CRLF in test/spec/test.js.
The file will have its original line endings in your working directory.
23 files changed, 10856 insertions(+)
Create mode 100644 .bowerrc
Create mode 100644 .editorconfice
   create mode 100644 .gitattributes
   create mode 100644
                                             .gitignore
  create mode 100644 .jshintrc
create mode 100644 Gruntfile.js
                                             app/.htaccess
app/404.html
   create mode 100644
   create mode 100644
                                             app/favicon.ico
   create mode 100644
                                            app/index.html
app/robots.txt
app/scripts/app.js
   create mode 100644
   create mode 100644
   create mode 100644
                                             app/scripts/hello.coffee
app/scripts/main.js
app/styles/main.scss
  create mode 100644
create mode 100644
   create mode 100644
   create mode 100644
                                             bower.json
                                             package.json
   create mode 100644
  create mode 100644 package.json
create mode 100644 test/index.html
create mode 100644 test/lib/chai.js
create mode 100644 test/lib/mocha/mocha.css
create mode 100644 test/lib/mocha/mocha.js
  create mode 100644 test/spec/test.js
C:\Users\User\Documents\GitHub\git-demo [master]>
```

建立版本完後,Git Shell 的提示就只剩下 [master] 字樣了,代表目前已經沒有任何要被建立版本的索引或快取。

註:詳細的指令與參數說明,可以輸入 git help commit 查詢完整的文件。

# 查詢歷史紀錄

由於我們剛剛建立了一個版本,當我們想要查詢版本的歷史紀錄,可以輸入以下指令:

```
posh~git~git-demo [master]

C:\Users\User\Documents\GitHub\git-demo [master]> git log
commit 00ad2279ff021b8ef1722417cd856f64aef0ef64
Author: Will < @gmail.com>
Date: Fri Sep 20 00:28:42 2013 +0800

第一次建立版本,內容是 yeoman 建立的 webapp 專案
C:\Users\User\Documents\GitHub\git-demo [master]>
```

有時候紀錄越來越多,你也可以透過以下指令限制輸出的版本數量,你只要透過一個減號(-)與 一個數字,就可以限定輸出最近幾筆紀錄:

```
git log -10
```

註:詳細的指令與參數說明,可以輸入 git help log 查詢完整的文件。

# 刪除檔案

在 Git 指令列工具中也有個 rm 指令,可以用來刪除檔案。例如我們想刪除 Gruntfile.js 這個檔案,可以輸入以下指令:

```
git rm 'Gruntfile.js'
```

```
C:\Users\User\Documents\GitHub\git-demo [master]> git rm 'Gruntfile.js'
rm 'Gruntfile.js'
C:\Users\User\Documents\GitHub\git-demo [master +0 >0 -1]> git status
# On branch master
# Changes to be committed:
# (use "git reset HEAD <file>..." to unstage)
#
# deleted: Gruntfile.js
#
C:\Users\User\Documents\GitHub\git-demo [master +0 >0 -1]>
```

這個 | git rm | 的指令執行的時候,會同時做兩件事:

- 1. 刪除工作目錄快取的 'Gruntfile.js' 這個檔案 (用來標示這個刪除檔案的動作要列入版本控管)
- 2. 刪除工作目錄下的 'Gruntfile.js' 這個實體檔案 (代表真的把這個實體檔案給刪除)

註:詳細的指令與參數說明,可以輸入 git help rm 查詢完整的文件。

#### 檔案更名

在 Git 指令列工具中也有個 [mv] 指令,可以用來變更檔案或目錄的名稱。例如我們想把 [test] 目錄更名為 [unit-test] 名稱,可以輸入以下指令:

```
git mv test unit-test
```

```
C:\Users\User\Documents\GitHub\git-demo [master +0 ~0 -1]> git mv test unit-test
C:\Users\User\Documents\GitHub\git-demo [master +0 ~6 -1]> git status
# On branch master
# Changes to be committed:
# (use "git reset HEAD <file>..." to unstage)
#
# deleted: Gruntfile.js
# renamed: test/index.html -> unit-test/index.html
# renamed: test/lib/chai.js -> unit-test/lib/chai.js
# renamed: test/lib/expect.js -> unit-test/lib/expect.js
# renamed: test/lib/mocha/mocha.css -> unit-test/lib/mocha/mocha.css
# renamed: test/lib/mocha/mocha.js -> unit-test/lib/mocha/mocha.js
# renamed: test/lib/mocha/mocha.js -> unit-test/lib/mocha/mocha.js
# renamed: test/spec/test.js -> unit-test/spec/test.js
# C:\Users\User\Documents\GitHub\git-demo [master +0 ~6 -1]>
```

註:詳細的指令與參數說明,可以輸入 git help mv 查詢完整的文件。

# 顯示工作目錄的索引狀態

剛剛我們一直會看到 git status 來顯示工作目錄的狀態,你也可以使用 git status -s 來顯示 較為精簡的版本。

```
C:\Users\User\Documents\GitHub\git-demo [master +0 ~6 -1]> git status -s
Gruntfile.js
R test/index.html -> unit-test/index.html
R test/lib/chai.js -> unit-test/lib/chai.js
R test/lib/expect.js -> unit-test/lib/expect.js
R test/lib/mocha/mocha.css -> unit-test/lib/mocha/mocha.css
R test/lib/mocha/mocha.js -> unit-test/lib/mocha/mocha.js
R test/spec/test.js -> unit-test/spec/test.js
C:\Users\User\Documents\GitHub\git-demo [master +0 ~6 -1]>
```

註:詳細的指令與參數說明,可以輸入 git help status 查詢完整的文件。

#### 重置目前的工作目錄

我們曾經學過如何利用 git reset 重置目前工作目錄的索引狀態,但請注意,這個指令預設只會重置「索引狀態」,那些你用 git rm 刪除的目錄或檔案,還是用 git mv 更名的目錄或檔案,透過 git reset 都無法把「實體檔案」給救回來。

如果想把工作目錄也給還原到目前的最新版,則必須輸入以下指令:

```
git reset --hard
```

註:詳細的指令與參數說明,可以輸入 git help reset 查詢完整的文件。

# 還原其中一個被改壞的檔案

如果檔案編輯到一半,發現被改壞了,你希望能救回改沒修改前的版本,這時你可以利用以下指令 還原檔案:

```
git checkout master Gruntfile.js
```

這段指令的意思是把 master 分支中最新版的 Grunefile.js 給還原,由於我先前已經把 Gruntfile.js 給刪除了,為了要救回這一個檔,可以用這個方式救回。這樣可以避免使用 git reset --hard 一次把所有檔案都給還原了!

請注意,還原的過程也會一併復原工作目錄的索引狀態喔!

註:詳細的指令與參數說明,可以輸入 git help checkout 查詢完整的文件。

# 今日小結

今日的文章,可以說是在 Git 版本控管中不斷會重複使用的指令與參數,必須非常熟練才行,接下來的文章,將會詳細探討 Git 版本控管的內部結構,千萬不要錯過!

我重新整理一下本日學到的 Git 指令與參數:

- git init
- git add .
- git add app/\*
- git add \* txt
- · git status
- git status -s
- · git commit
- git commit -m "版本紀錄的說明文字"
- git log
- git log -10
- git rm '\* txt'
- git rm 'app/\*.html'
- git mv 'oldname' 'newname'
- · git reset
- git reset --hard
- · git checkout master 'filename'

# 參考連結

BASIC SNAPSHOTTING (http://gitref.org/basic/)

A Mashup of bootstrap (http://twitter.github.com/bootstrap/) and markdown.js (https://github.com/evilstreak/markdown-js) by @ethanlo (http://www.twitter.com/ethanlo).