

Git & GitHub Introduction

CLW-R-Learning

Jason

Install Git

以下的方法都會用到Git，你們應該會有下載GitHub，但我不太確定你們有沒有下載到Git。

連結：<http://git-scm.com/downloads>

就選自己的作業系統下載吧！

Method 1 - Rstudio

- Rstudio有內建與GitHub連接的功能，首先要先找到你Git執行檔的path，通常會在一般下載程式的地方，我的是在：

C:\Program Files (x86)\Git\bin\git.exe

File Explorer window showing the contents of the `Git > bin` directory. The search bar contains `搜尋 bin`.

名稱	修改日期	類型
find	2015/1/12 下午 09:...	應用
flex	2015/1/12 下午 09:...	應用
gawk	2015/1/12 下午 09:...	應用
getcp	2015/1/12 下午 09:...	應用
git	2015/1/12 下午 09:...	應用
gitk	2014/12/17 下午 0...	檔案
gpg	2015/1/12 下午 09:...	應用
gpgkeys_curl	2015/1/12 下午 09:...	應用
gpgkeys_finger	2015/1/12 下午 09:...	應用
gpgkeys_hkp	2015/1/12 下午 09:...	應用
gpgkeys_ldap	2015/1/12 下午 09:...	應用
gpgsplit	2015/1/12 下午 09:...	應用
gpgv	2015/1/12 下午 09:...	應用

Summary bar for `git` (Application):
修改日期: 2015/1/12 下午 09:45 建立日期: 2015/1/12 下午 09:45
大小: 1.43 MB

Properties window for `git`.

一般 相容性 安全性 詳細資料 以前的版本

檔案類型: 應用程式 (.exe)
描述: Git for Windows

位置: **C:\Program Files (x86)\Git\bin**
大小: 1.43 MB (1,503,744 位元組)
磁碟大小: 1.43 MB (1,507,328 位元組)

建立日期: 2015年1月12日, 下午 09:45:25
修改日期: 2015年1月12日, 下午 09:45:44
存取日期: 2015年1月12日, 下午 09:45:25

屬性: ☐ 唯讀(R) ☐ 隱藏(H) 進階...

確定 取消

Method 1 - Rstudio

記住以後再到Rstudio，Tools→Git/SVN(左排最下面)→Git executable的地方加入那個path。

設定好之後，你就可以到Rstudio的File→New Project→Version Control→Git→Repository URL，將你要新增檔案的URL貼上去，他會馬上設定訂二欄的Project name。舉例來說，如果要新增檔案到Administration，你就必須貼上

<https://github.com/CLW-R-Learning/Administration>。

它就會把所有在Administration的檔案Clone(複製到你的電腦他們稱為Local Repository)，而它所存放的地點會在你R所設定的Working Directory。



Console ~/

Platform: x86_64-w64-mingw32/x64 (64-bit)

Options



General



Code Editing



Appearance



Pane Layout



Packages



Sweave



Spelling



Git/SVN

☒ Enable version control interface for RStudio projects

Git executable:

C:/Program Files (x86)/Git/bin/git.exe

Browse...

☒ Use Git Bash as shell for Git projects

SVN executable:

(Not Found)

Browse...

SSH RSA Key:

[View public key](#)

C:/Users/asusnb/.ssh/id_rsa

Create RSA Key...

[? Using Version Control with RStudio](#)

OK

Cancel

Apply

ABSOLUTELY NO WARRANTY
under certain conditions
distribution details

many contributors.
information and
packages in public

o()' for on-line help
interface to help.

ment is empty

sed on Nelder-Mead, quasi-Newton and conjugate-gradient
for box-constrained optimization and simulated annealing.

Ctrl+O

Ctrl+S

Ctrl+Alt+S

Ctrl+Shift+K

Ctrl+W

Ctrl+Shift+W

Ctrl+Q

R Script

R Documentation

Optimization

sed on Nelder-Mead, quasi-Newton and conjugate-gradient
for box-constrained optimization and simulated annealing.

Console ~/

Platform: x86_64-w64-mingw32/x64 (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help,
'help.start()' for an HTML browser interface to help,
Type 'q()' to quit R.

[Workspace loaded from ~/.RData]

> |

Environment History

Import Dataset Clear

Global Environment

Environment is empty



Run



Source

Console ~/ ↗

Platform: x86_64-w64-mingw32/x64 (64-bit)

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many contributors.
information and
R packages in public
'help()' for on-line help
er interface to help.

New Project

Create project from:

**New Directory**

Start a project in a brand new working directory

**Existing Directory**

Associate a project with an existing working directory

**Version Control**

Checkout a project from a version control repository



Cancel

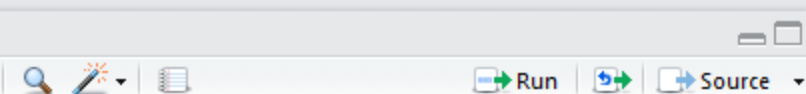
Viewer

Find in Topic

Optimization

Environment is empty

sed on Nelder-Mead, quasi-Newton and conjugate-gradient
for box-constrained optimization and simulated annealing.



Console ~/

Platform: x86_64-w64-mingw32/x64 (64-bit)

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information and
R packages in public
'help()' for on-line help
er interface to help.

New Project

Back

Create Project from Version Control

**Git**

Clone a project from a Git repository

**Subversion**

Checkout a project from a Subversion repository



Cancel

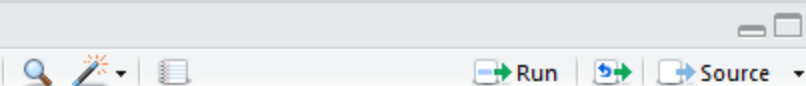
Viewer

Find in Topic

Optimization

sed on Nelder-Mead, quasi-Newton and conjugate-gradient
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Environment is empty



Console ~/ ↗

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'help()' for on-line help
er interface to help.

New Project

Back

Clone Git Repository



Repository URL:

Project directory name:

Create project as subdirectory of:

Browse...

☐ Open in new window

Create Project

Cancel

Viewer

Find in Topic

Optimization

sed on Nelder-Mead, quasi-Newton and conjugate-gradient
for box-constrained optimization and simulated annealing.

Environment is empty



Viewer

Rename More ▾

	Size	Modified
	32 B	Apr 3, 2015, 10:17 PM
	216 B	Apr 3, 2015, 10:17 PM
	699 B	Apr 3, 2015, 10:17 PM

Console ~/Administration/

R is a collaborative project with many contributors.
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Type 'demo()' for some demos, 'help()' for on-line hel
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

>

Environment

History

Git



Import Dataset ▾



Clear



Global Environment ▾

Environment is empty

Method 1 - Rstudio

- 接著你就可以開始寫程式或是從下面點開以前的程式進行編輯。編輯、存檔完後，在右下角按Commit，接著勾選所有未更新到Remote Repository(也就是在GitHub上的)然後按Commit，右方則可以說明你這次Commit做了些什麼，然後按Commit完成。接著你會發現右手邊會有一行提醒文字，“Your branch is ahead of origin/master by 1 commit”，也就是說你還沒真正Commit到GitHub，你還需要多一個步驟，push，接著按照指示輸入Username、password就可以成功上傳了。



Editor toolbar: Search, Run, Source, and other icons.

Run button: Run

Source button: Source

R Script

Viewer toolbar: Rename, More, and other icons.

Rename button: Rename

More button: More

	Size	Modified
	32 B	Apr 3, 2015, 10:17 PM
	216 B	Apr 3, 2015, 10:17 PM
	699 B	Apr 3, 2015, 10:17 PM

Console ~/Administration/

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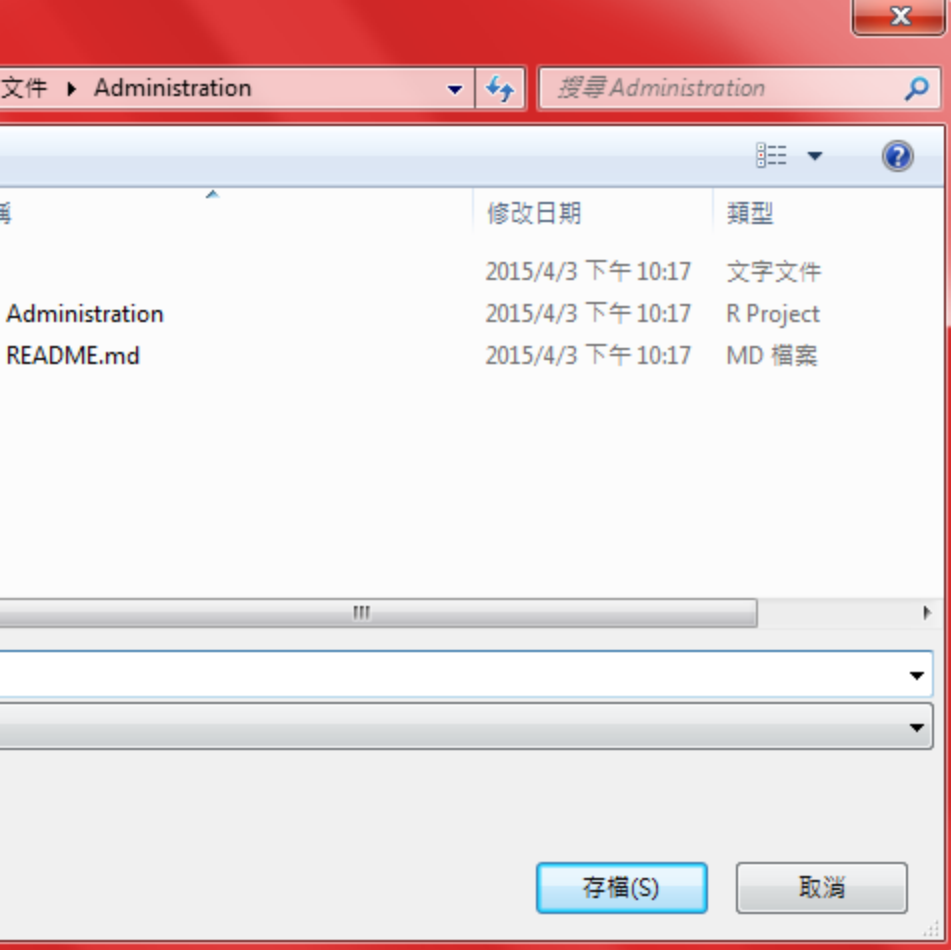
> |

Environment History Git

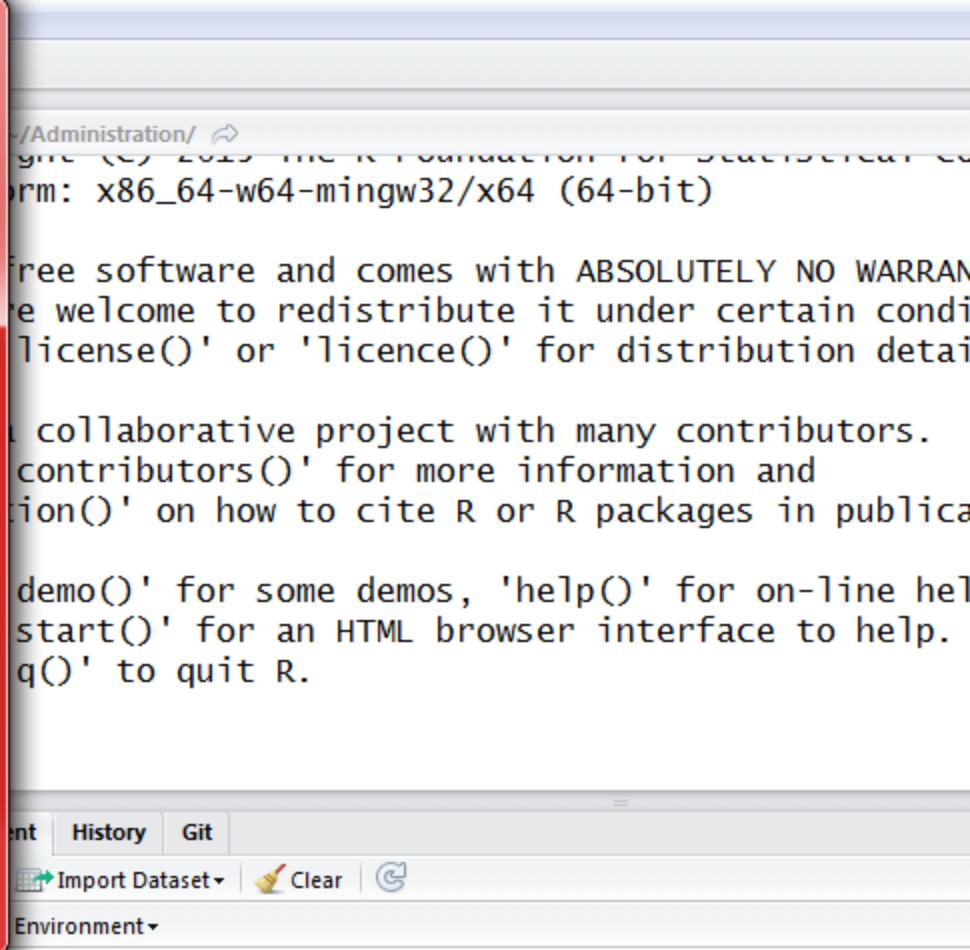
Import Dataset Clear

Global Environment

Environment is empty



Size	Modified
32 B	Apr 3, 2015, 10:17 PM
216 B	Apr 3, 2015, 10:17 PM
699 B	Apr 3, 2015, 10:17 PM





Editor toolbar: Search, Run, Source, and other icons.

Run button: Run

Source button: Source

R Script

Viewer		
Rename	More	
	Size	Modified
	32 B	Apr 3, 2015, 10:17 PM
	216 B	Apr 3, 2015, 10:17 PM
	699 B	Apr 3, 2015, 10:17 PM
	38 B	Apr 3, 2015, 10:19 PM

Console ~/Administration/

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Environment History Git

Import Dataset Clear

Global Environment

Environment is empty



Run



Source

)

R Script

Viewer

Rename More

	Size	Modified
	32 B	Apr 3, 2015, 10:17 PM
	216 B	Apr 3, 2015, 10:17 PM
	699 B	Apr 3, 2015, 10:17 PM
	38 B	Apr 3, 2015, 10:19 PM

Console ~/Administration/

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Type 'q()' to quit R.

> |

Environment

History

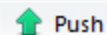
Git



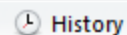
Commit



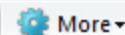
Pull



Push



History



More

Staged Status Path

<input type="checkbox"/>	?	?	.gitignore
<input type="checkbox"/>	?	?	Administration.Rproj
<input type="checkbox"/>	?	?	Demo.R

Staged	Status	Path
✓	A	.gitignore
✓	A	Administration.Rproj
✓	A	Demo.R

Commit message

Demo!!!

☐ Amend previous commit

Commit

Show Staged Unstaged Context 5 line Unstage All

@@ -0,0 +1,5 @@

Unstage chunk

```
1 #Demo
2 x <- rnorm(1000)
3 hist(x)
4
5
```



Console ~/Administration/

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R Script

Viewer

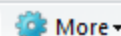
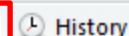
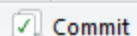
Rename More

Size	Modified
32 B	Apr 3, 2015, 10:17 PM
216 B	Apr 3, 2015, 10:17 PM
699 B	Apr 3, 2015, 10:17 PM
38 B	Apr 3, 2015, 10:19 PM

Environment

History

Git



Your branch is ahead of 'origin/master' by 1 commit.

Staged Status Path

Method 1 - Rstudio

另外，如果你要上傳PDF檔，其實可以直接將檔案移到複製下來的資料夾中，在進行一樣的步驟就能上傳檔案。

Method 2 - GitHub

GitHub自己也有提供一個程式，可以讓使用者不用學Git的code也可以自由上傳檔案，你們在辦帳號時或許他會提醒你可以下載這個GUI(不知道是不是這樣說有點忘了)，打開它之後，右上角會有一個+，點開後它已經會連到你GitHub上面的平台，你就可以直接點選Administration，然後一樣Clone到你的電腦，而你可以自由選擇你要放在哪裡，由於這次是Demo，所以我就選在桌面(如果以後會多次用到，可以自己放一個地方)。



Minitab 16



好屋



Git



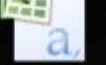
中研院



台灣政治



laplace



SAS



GitHub



e-leader



Python



UC Berkeley



Picture video



HW2.Rmd



mlclass-ex8



Git Shell



Dropbox



eclipse



研究所



Vocabulary



HW2



Git & Github
Introduction



SQL Server Manage...



政大



Data
Structure



統計計算與
模擬



Weekly
Schedule



人資部招募
手冊(幹部篇)



GAP v0.2



Jason



Consulting
Club



資料庫系統



畢旅花費



acf



格式工廠



SAS



R Learning



存活分析



The Elements
of Statistica...



Excel



Avira Control
Center



R



Coursera



風險管理



MA-meeting



Nonparam...
R code



Filter repositories



Get started by adding a repo



Add Create Clone

jJasonWang

CLW-R-Learning

Filter repositories

Administration

Idea_Record

Regression



Clone repository



ted by adding a repository

+

+

▼

Add

Create

Clone

jJasonWang

CLW-R-Learning

Filter repositories

Administration

Idea_Record

Regression

✓

Clone **Administration**



ted by adding a reposi



a repository.



網路



iTunes



Minitab 16



好堡



Git



中研院



台灣政治



laplace



SAS



asusnb



CCleaner



GitHub



e-leader



Python



UC Berkeley



Picture video



HW2.Rmd



mlclass-ex8



電腦



iTools 2.0



Git Shell



Dropbox



eclipse



研究所



Vocabulary



HW2



Git & Github
Introduction



資源回收筒



SmartLogon
Manager



SQL Server Manage...



政大



Data
Structure



統計計算與
模擬



Weekly
Schedule



人資部招募
手冊(幹部篇)



Administrati
on



控制台



Splendid
Utility



GAP v0.2



Jason



Consulting
Club



資料庫系統



畢旅花費



acf



GOM Player



SAS



格式工廠



SAS



R Learning



存活分析



The Elements
of Statistica...



Excel



QuickTime
Player



PASW
18.0.0_port...



Avira Control
Center



R



Coursera



風險管理



MA-meeting



Nonparam...
R code

Method 2 - GitHub

Clone完後，你會發現你的桌面多了一個Administration的資料夾，你就可以把你的檔案都丟過去後，你會發現原本的History的地方多了一個Uncommitted Change也就是你剛剛丟過去的檔案還沒Commit，點開後填完說明就可以Commit上去。接著你會發現右上角Sync的地方多了一個+1，這裡的意思就跟剛剛一樣，你必須要把你的commit push到GitHub上面，按下Sync等他跑完後，就大功告成了。



網路



asusnb



電腦



資源回收筒



控制台



GOM Player



QuickTime Player














Filter repositories

Administration

master ▾

History

-  Demo!!!
21 minutes ago by Jason Wang
-  Delete hi
29 minutes ago by jJasonWang
-  Delete hey
29 minutes ago by jJasonWang
-  Delete Try.html
29 minutes ago by jJasonWang
-  Delete Try.Rmd
29 minutes ago by jJasonWang
-  Delete Jason
29 minutes ago by jJasonWang
-  Delete Nonparametric R code.pdf
29 minutes ago by jJasonWang
-  Delete .gitignore
29 minutes ago by jJasonWang
-  Merge branch 'master' of https://github.co...
9 hours ago by Jason Wang
-  Try whether I can upload file
9 hours ago by Jason Wang
-  Delete Administration.Rproj
11 hours ago by jJasonWang

Demo!!!

 Jason Wang [6e2ba44](#)

- ▶ .gitignore
- ▶ Administration.Rproj
- ▶ Demo.R



網路

asusnb

電腦

資源回收筒

控制台

GOM Player

QuickTime Player



master ▾

Filter repositories

Administration

Uncommitted changes

Hide

☒ Files to commit

Demo

☒ Git & Github Introduction.pptx

Demo



Commit to master
1 file to be committed

Binary file
Use an application that

[Open c](#)

History



Demo!!!
25 minutes ago by Jason Wang



Delete hi
33 minutes ago by jJasonWang



Delete hey
33 minutes ago by jJasonWang



Delete Try.html
33 minutes ago by jJasonWang



Delete Try.Rmd
33 minutes ago by jJasonWang



Delete Jason
33 minutes ago by jJasonWang



Delete Nonparametric R code.pdf



Sync

+1



anced changes

Demo

ust now by Jason Wang

y

Demo!!!

26 minutes ago by Jason Wang

Delete hi

34 minutes ago by jJasonWang

Delete hey

34 minutes ago by jJasonWang

Delete Try.html

34 minutes ago by jJasonWang

Delete Try.Rmd

34 minutes ago by jJasonWang

Delete Jason

34 minutes ago by jJasonWang

Delete Nonparametric R code.pdf

34 minutes ago by jJasonWang

Delete .gitignore

34 minutes ago by jJasonWang

Demo



Jason Wang

9446582

Revert Collapse all

Demo

▼ Git & Github Introduction.pptx



Binary file not shown

Use an application that can open .pptx files to view it.

[Open containing folder](#)

emo'

Method 3 - Git

這部份的話就是要真的打Git的指令上傳檔案，會比較麻煩，所以我想說應該用前面兩個就可以解決我們面前遇到的問題。

但如果有人想了解的話，還是可以Google Git，應該會有蠻多解說及教學。

下面是我之前找到過的一個教學

<https://www.codeschool.com/paths/git>