



# 簡介 GitHub 平台



多奇數位創意有限公司

技術總監 黃保翕 ( Will 保哥 )

部落格：<http://blog.miniasp.com/>

Understanding Git Version Control

# 認識 Git 版本控制



# 何謂版本控管 (Version Control)

- 完整記錄軟體變化的過程 (人、事、時、地、物)
- 紀錄版本變化而衍生出許多功能
  - 查詢歷史紀錄
  - 復原變更
  - 比對差異
  - 標記版本
  - 變更追蹤 ...
- 多人版控進一步衍生出的功能
  - 協同作業
  - 分支合併
  - 版控流程
  - 發行管理等進階應用

# 集中式版控 vs. 分散式版控

## • 集中式版本控管

### – 優點

- 所有版本集中於伺服器端管理，可選用**鎖定**或**合併**等版控策略
- 較為精細的權限控管 ( 針對**目錄**或**檔案** )

### – 缺點

- **沒網路**就無法進行版本控管，其中包含：
  - 依然可以進行本地開發，但**無法提交新版本**
  - 無法查詢歷史紀錄 (或取出先前提交的歷史版本)

## • 分散式版本控管

### – 優點

- 每位開發人員會保有**完整的儲存庫**，等於每個人都擁有**完整的儲存庫備份**
- 可以在**本地端**建立**離線的版本與歷史紀錄**，建立版本時不需要網路連接

### – 缺點

- 無法採用**鎖定**版控策略 (僅能使用**合併**策略)，無法對專案進行**精細的權限控管**

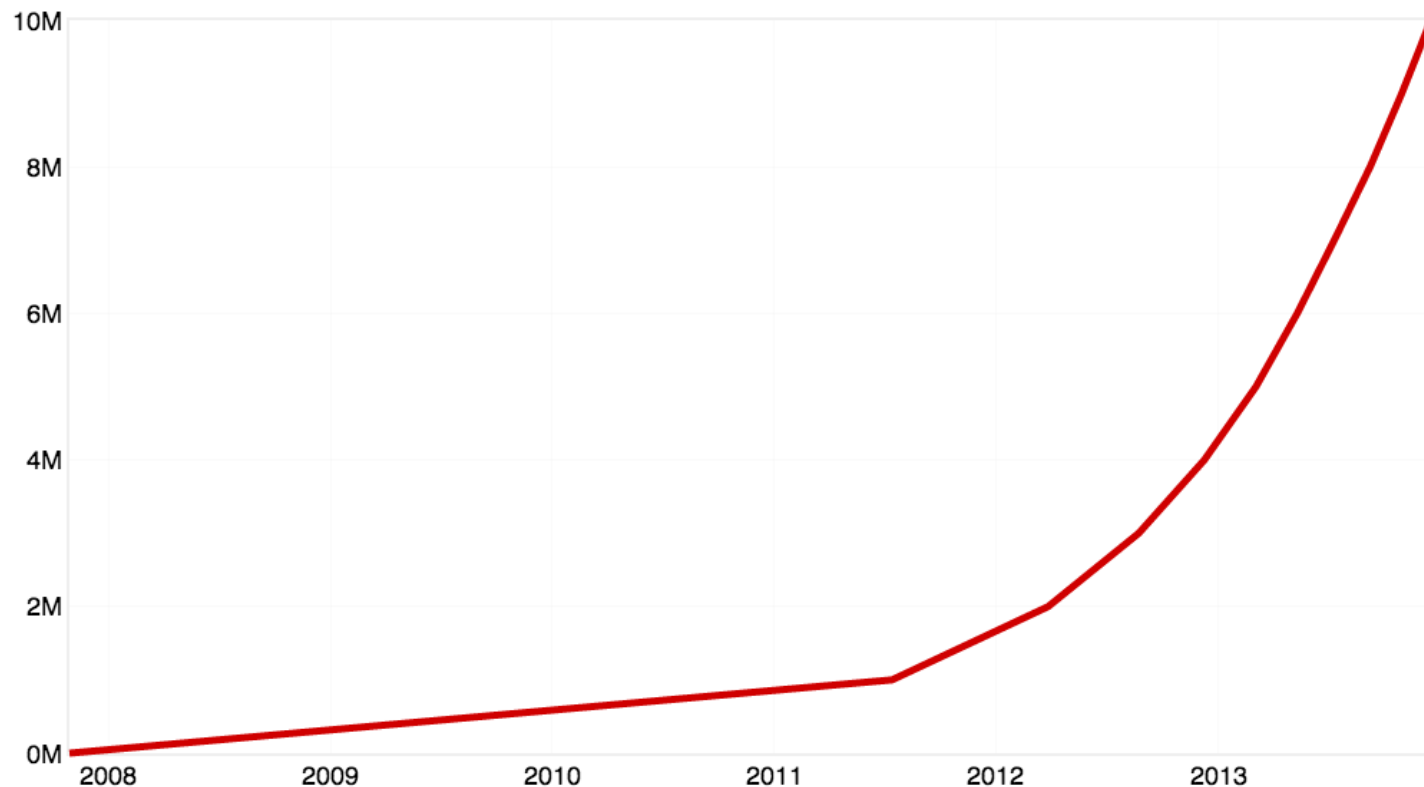
The GitHub Platform

# 認識 GitHub 平台



# 超過 1 千萬個專案

- [10 Million Repositories](#) (December 24, 2013)



## GitHub and Government

[Who's using GitHub](#) [Peer Group](#) [Contact](#)

# Government like you've never imagined.

Collaborate on code, data, or policy, within your organization or with the public.



### Upgrade your IT workflow

Git is an open-source version control system that tracks who made what change when across software projects.



### Public engagement, private collaboration

Publish open source software on [GitHub.com](#) or collaborate privately and securely behind your agency's firewall.



### Communicate more, manage less

GitHub's issue tracking tools give you day-to-day visibility into your project's success, without the need for lengthy meetings.



### Enterprise controls, startup speed

Collaborate openly while still limiting access to a team, to select stakeholders, or to an entire organization.



### In your datacenter or in the cloud

Run [GitHub Enterprise](#) in your data center as a virtual appliance, on [AWS GovCloud](#) or [Azure](#), or let us host the code for you on [GitHub.com](#).



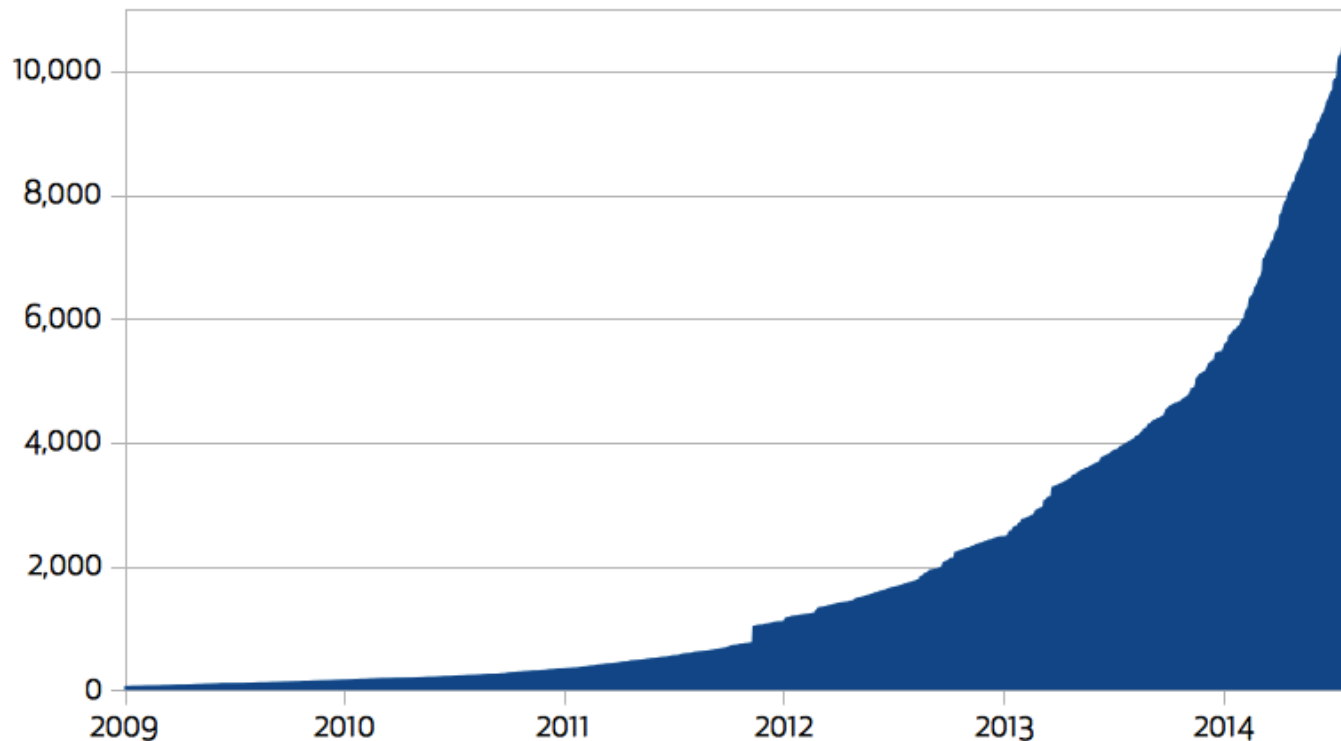
### IT without the paperwork

GitHub.com's [terms of service](#) are approved for government use by the [GSA](#), and [most plans](#) fall below the micro-purchase threshold.

# 超過 1 萬個政府帳號

- [10k active government users on GitHub](#) (August 15, 2014)

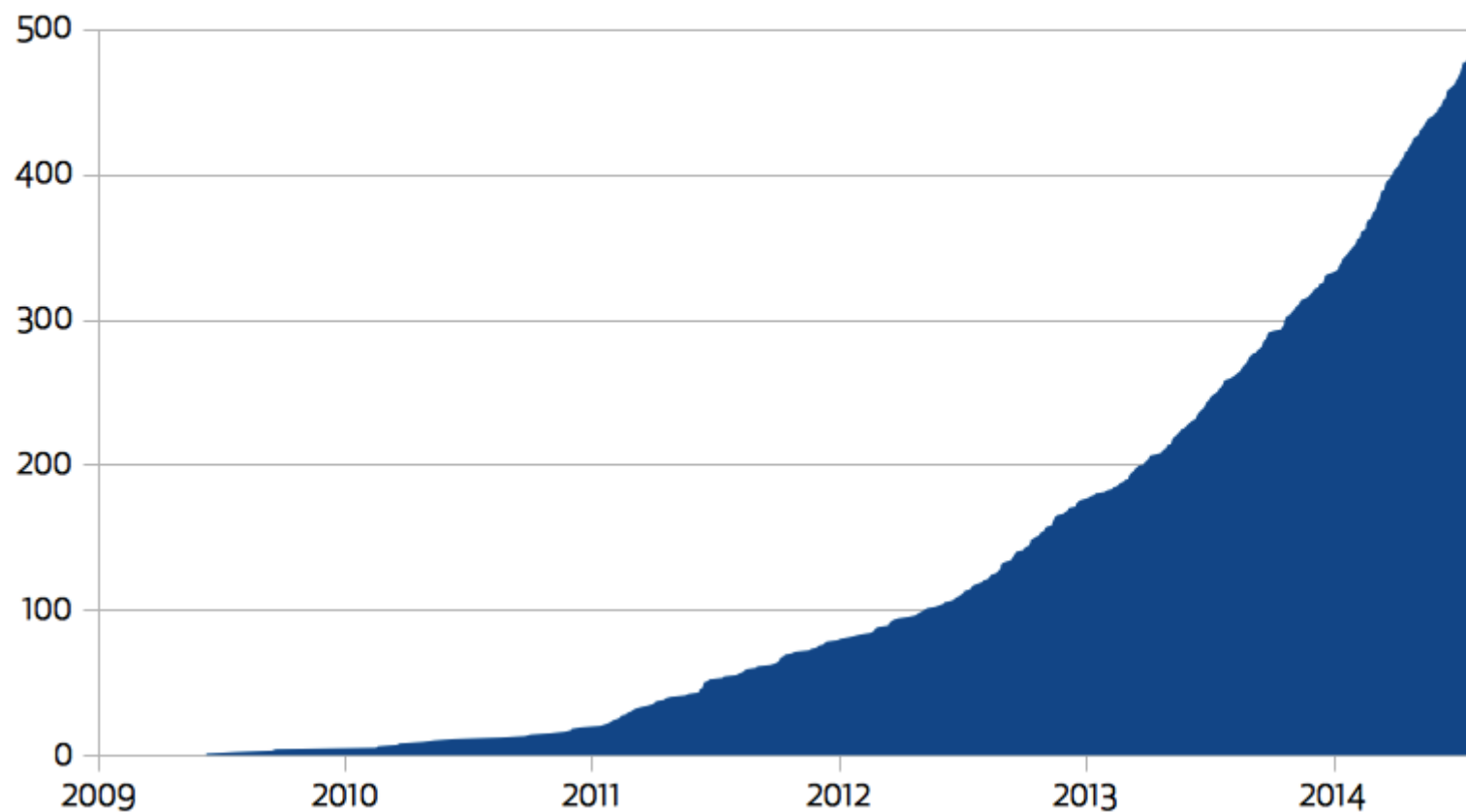
**Government Users on GitHub**





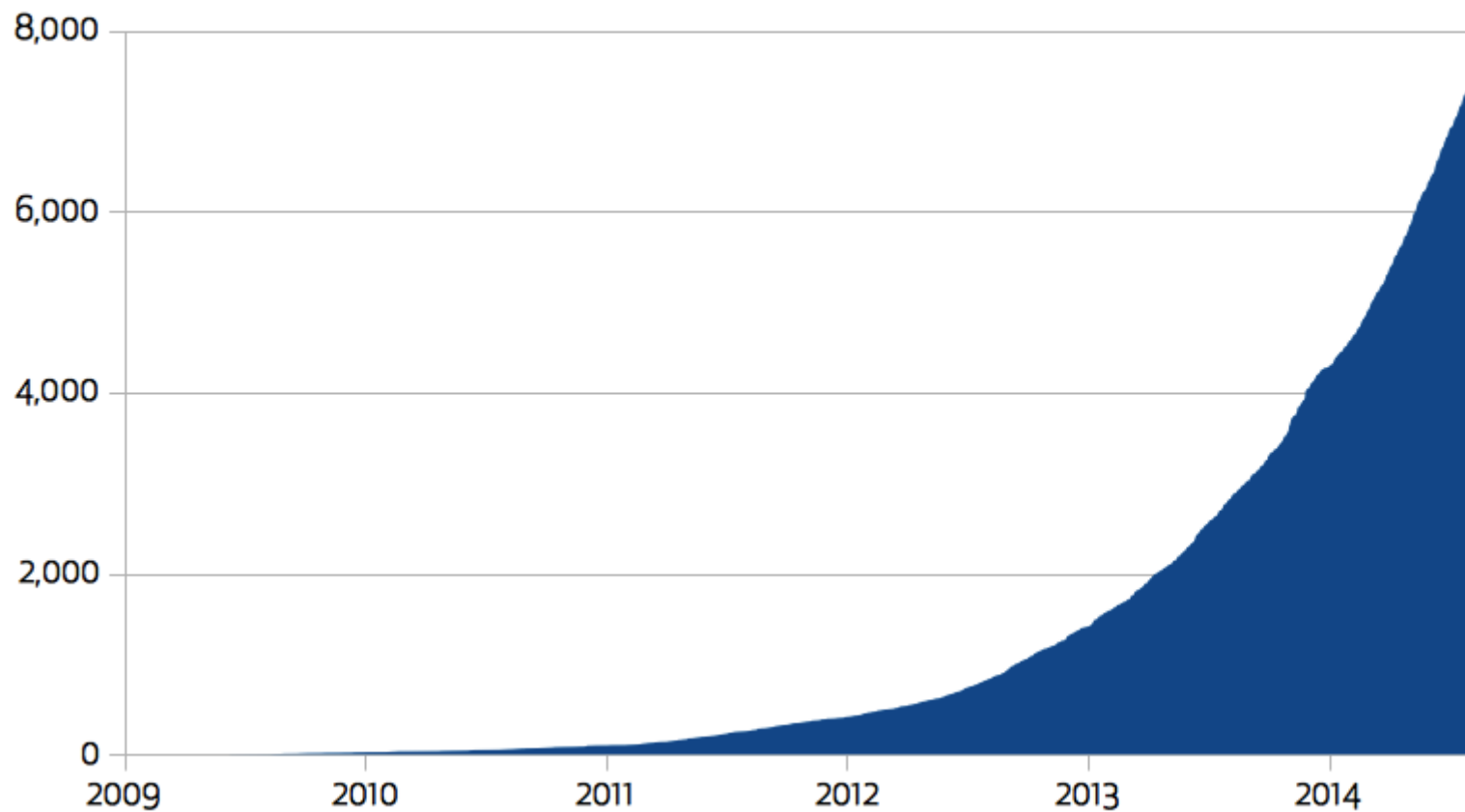
# 超過 500 個政府組織

**Government Organizations on GitHub**



# 超過 7,500 個專案 (開源+半開源)

## Government Repositories on GitHub



# 全世界政府在 GitHub 的帳號

<https://government.github.com/community/>

- Argentina (3)
- Australia (30)
- Belgium (3)
- Bolivia (2)
- Brazil (29)
- Canada (26)
- France (11)
- Hong Kong (1)
- Japan (5)
- New Zealand (10)
- The Netherlands (12)
- U.K. Central (46)
- U.K. Councils (23)
- U.S. City (59)
- U.S. County (16)
- U.S. Federal (113)
- U.S. Military and Intelligence (10)
- U.S. Special District (10)
- U.S. States (46)

## Add An Organization to the List

This website is [open source](#), therefore anyone in the community can submit edits through pull requests. If your agency isn't on this list, but should be, please add it:

1. Log in to [GitHub](#).
2. Go to [this repository](#) and fork it (button to the top right of the page).
3. In your forked version, click the branch dropdown and in the "Find or create a branch..." field, create a new branch (for example, "adding myagencyname").
4. Still in your forked version, click on the `_data/governments.yml` file or `_data/civic_hackers.yml` depending on where your organization fits.
5. At the top of the file is a list of the organizations populating this page. Click edit, near the top right, and then add your organization's GitHub account name just like the others: `- GroupGithubOrg`.
6. Click Commit Changes at the bottom of the page.
7. Visit the [original repository](#) and select Compare & pull request.
8. Fill out the form and click Send pull request!

# GitHub 帶來的效益

- 開放原始碼
  - 包含源碼控管、專案管理、議題管理、...
- 開放式資料
  - 強化資料開放性與協同作業
- 開放式政府
  - 透過開放促進民眾參與



This repository Search

Pull requests Issues Gist



doggy8088 / Learn-Git-in-30-days

Unwatch 108

Star 563

Fork 459

這是 Will 保哥在 2013 第 6 屆 iT 邦幫忙鐵人賽年度大獎的得獎著作【30 天精通 Git 版本控管】，歡迎大家 fork 我，如果有看見任何文字勘誤，也歡迎利用 pull request 來通知我修正，謝謝！  
<https://www.facebook.com/will.fans> — Edit

37 commits

1 branch

0 releases

7 contributors



Branch: master

Learn-Git-in-30-days / +



Merge pull request #10 from brad0924/master



doggy8088 authored on 22 May

latest commit 3b34e68be4

docs

修正錯字

3 months ago

README.markdown

Update README.markdown

3 months ago

README.markdown

# 30 天精通 Git 版本控管

作者: 黃保翁 (Will 保哥)



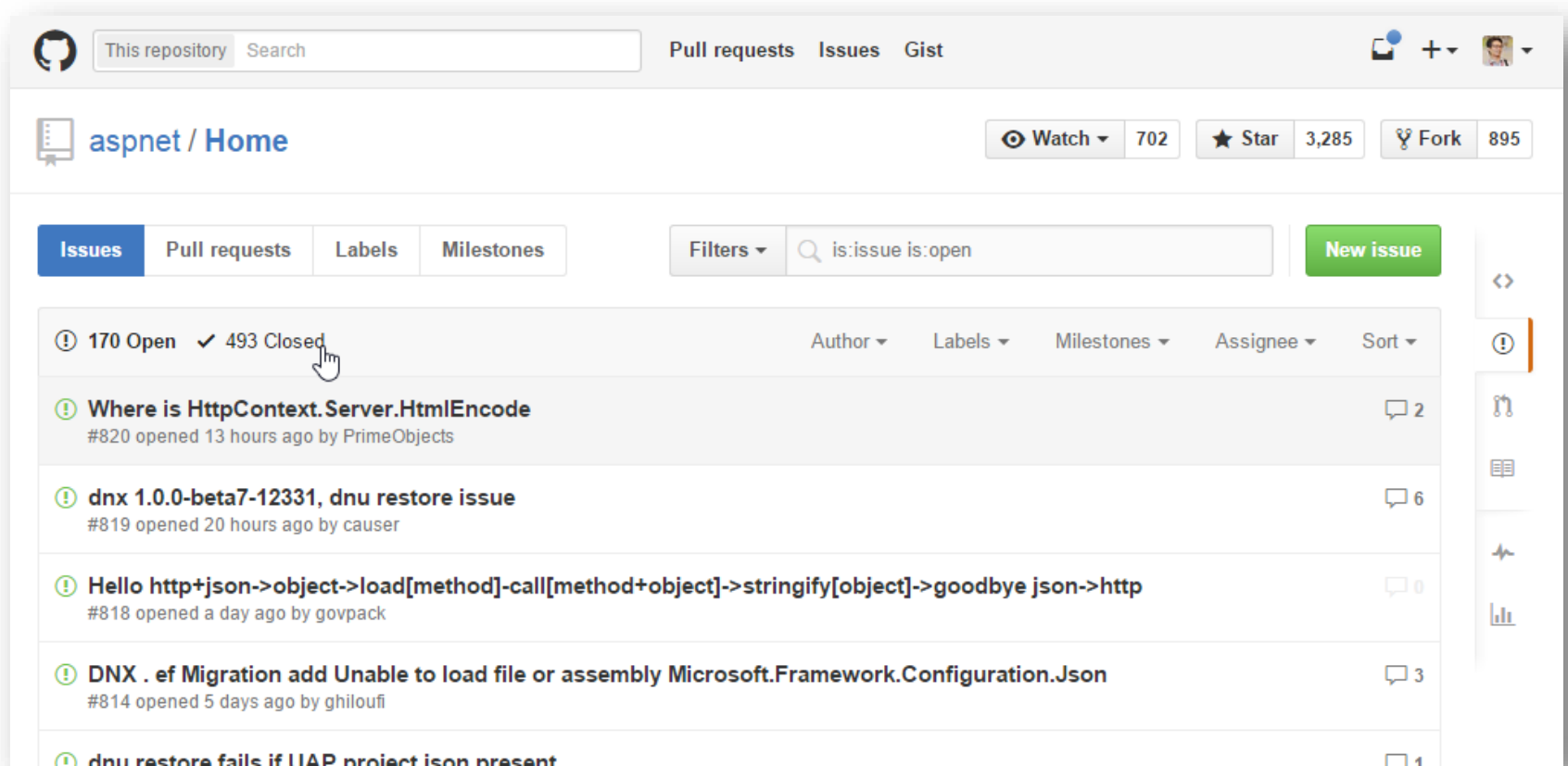
- 4 <> Code
- 5 ! Issues 2
- 6 Pull requests 0
- 7 Wiki
- 8 Pulse
- 9 Graphs
- 10 Settings
- 11 HTTPS clone URL  
https://github.com
- 12 Clone in Desktop
- Open in Visual Studio
- Download ZIP

# 原始碼控管 (Code)

- 可使用任何 Git 工具進行版控
  - 分支、標籤、發行、線上版本比對、線上合併分支
- 可套用任意 Git 版控流程 (架構十分彈性)
- GitHub 自創一套簡化版的 GitHub 版控流程
  - <https://guides.github.com/introduction/flow/>

# 專案管理 / 議題管理 (Issues)

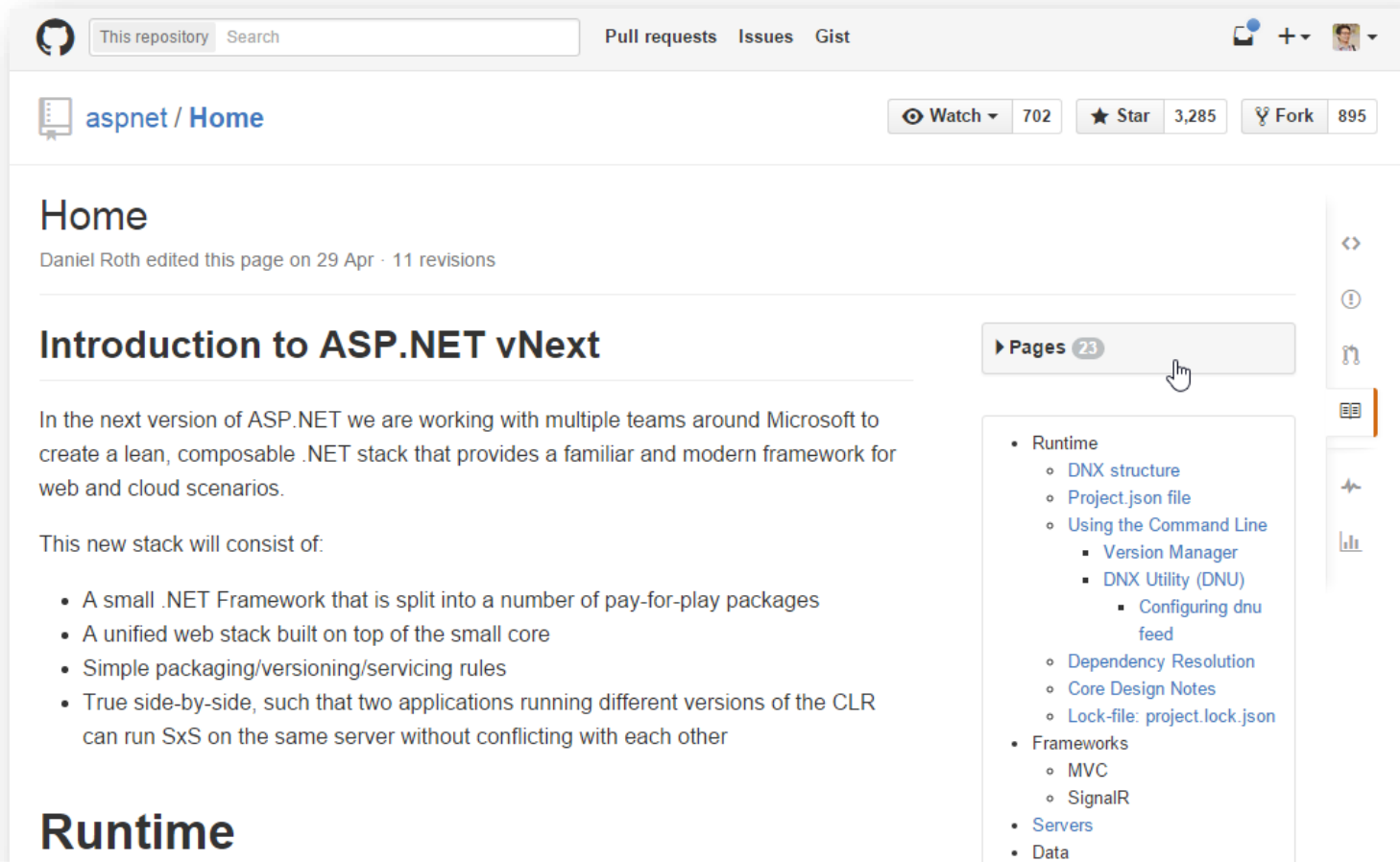
- [微軟 ASP.NET 5 專案 - Issues](#)



The screenshot shows the GitHub interface for the 'aspnet / Home' repository. At the top, there is a search bar and navigation links for 'Pull requests', 'Issues', and 'Gist'. Below this, the repository name 'aspnet / Home' is displayed along with statistics: 702 Watchers, 3,285 Stars, and 895 Forks. The 'Issues' tab is selected, showing a list of open issues. The search filter is set to 'is:issue is:open'. The issue list includes columns for status (170 Open, 493 Closed), author, labels, milestones, assignee, and sort order. The first issue is titled 'Where is HttpContext.Server.HtmlEncode' with 2 comments. Other issues include 'dnx 1.0.0-beta7-12331, dnu restore issue' (6 comments), 'Hello http+json->object->load[method]-call[method+object]->stringify[object]->goodbye json->http' (0 comments), and 'DNX . ef Migration add Unable to load file or assembly Microsoft.Framework.Configuration.Json' (3 comments).

# 文件管理 (Wiki)

- 採用 Wiki 格式進行文件管理 (彈性十足)



The screenshot shows a GitHub repository page for 'aspnet / Home'. The page title is 'Home', and it was last edited by Daniel Roth on 29 Apr with 11 revisions. The main content is a Wiki page titled 'Introduction to ASP.NET vNext'. The page text describes the next version of ASP.NET, which is a lean, composable .NET stack. It lists the components of the new stack:

- A small .NET Framework that is split into a number of pay-for-play packages
- A unified web stack built on top of the small core
- Simple packaging/versioning/servicing rules
- True side-by-side, such that two applications running different versions of the CLR can run SxS on the same server without conflicting with each other

The page also features a 'Pages' sidebar with 23 pages, including:

- Runtime
  - DNX structure
  - Project.json file
  - Using the Command Line
    - Version Manager
    - DNX Utility (DNU)
      - Configuring dnu feed
  - Dependency Resolution
  - Core Design Notes
  - Lock-file: project.lock.json
- Frameworks
  - MVC
  - SignalR
- Servers
- Data



# 免費網頁 (GitHub Pages)

- 免費的網頁空間
- 免費的 *username.github.io* 域名
- 免費的自訂網址 (custom domain)
- 無限網頁流量、支援全球 CDN 與負載平衡

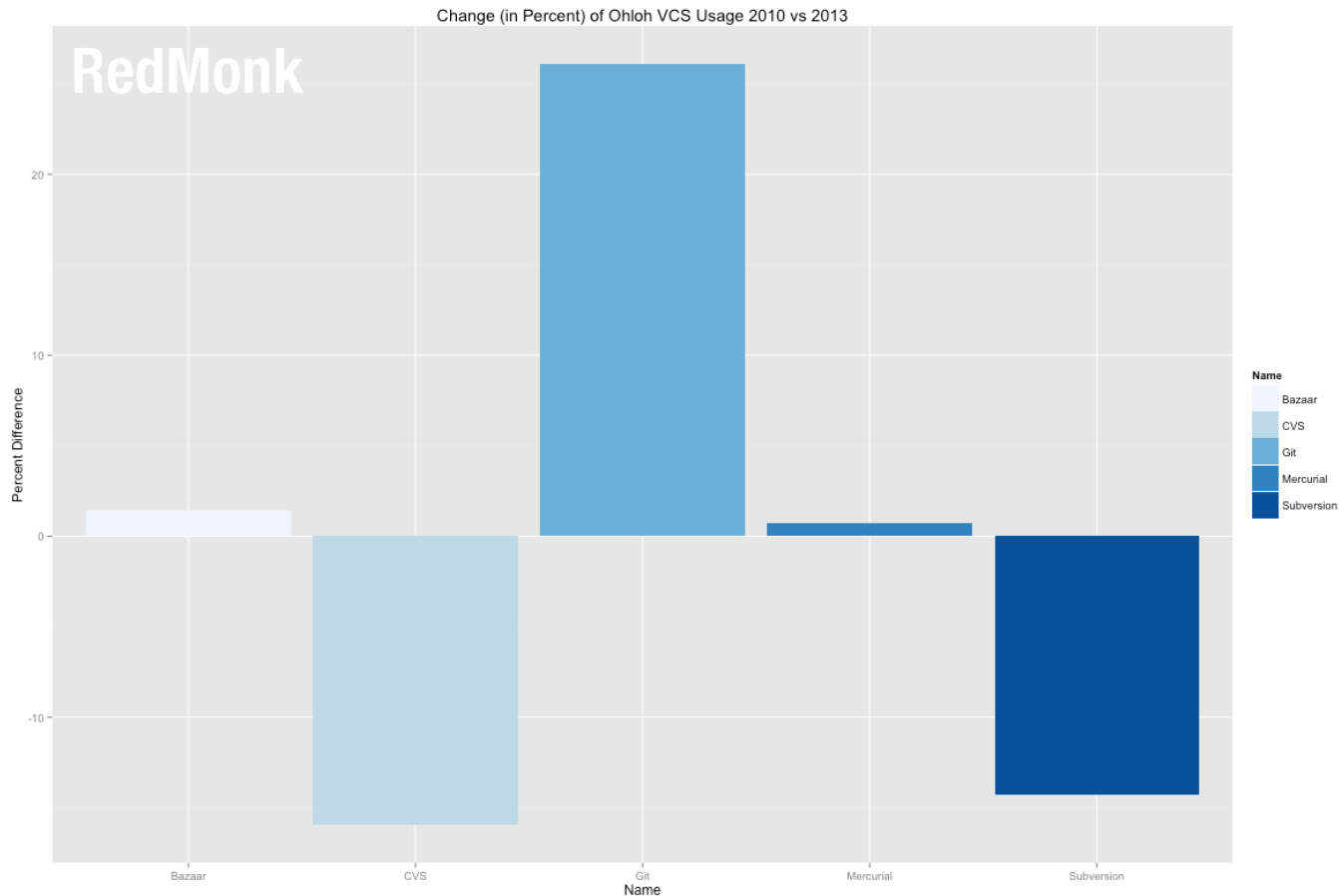
Summary

# 總結



# 採用分散式版控是世界主流趨勢

- Git 在近幾年成長幅度驚人



# GitHub 是在 Git 領域中的領導者

- 於 2008 年創立 (至今僅 7 年)
- 於 2012 獲得一筆 1 億美元資金
  - 當時估值 7.5 億美金
- 於 2015 獲得一筆 2 億美元資金
  - 目前估值約 20 億美金
  - [GitHub raises \\$250 million in new funding, now valued at \\$2 billion](#) (JULY 29, 2015) – Fortune
- 目前一枝獨秀，全球最多人用的 Git 協作平台

# 選用 GitHub 的理由

- 完整且彈性的協作機制
  - 原始碼版本控管
  - 完整的原始碼協作/審核機制
  - 議題追蹤與專案管理
  - Wiki 文件協作
  - 免費網頁空間
- 世界最多人用的開放平台，高知名度

# 聯絡資訊

- The Will Will Web  
記載著 Will 在網路世界的學習心得與技術分享
  - <http://blog.miniasp.com/>
- Will 保哥的技術交流中心 (臉書粉絲專頁)
  - <http://www.facebook.com/will.fans>
- Will 保哥的噗浪
  - <http://www.plurk.com/willh/invite>
- Will 保哥的推特
  - [https://twitter.com/Will\\_Huang](https://twitter.com/Will_Huang)