



License

大綱

別人怎麼知道我用了哪一種opensource

copy left, copy center, copy right

常見的license

在哪裡寫license的內容

如何用license保護自己

open source上如何標示

這是一個法務不一定會，研發人員也不會的主題

N年前

我：法務，可以幫我看一下這一個license嗎？

法務：這裡面一堆專有名詞我怎麼可能懂，你應該比較懂吧？

我：裡面一堆法條，我怎麼可能懂

雖然我們不是法律專業，但是還是要懂

為甚麼大家不懂? – 研發人員不懂的原因

3. Object Code Incorporating Material from Library Header Files.

The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following:

有字天書

為甚麼大家不懂？－法務不懂

3. **Object Code** Incorporating Material from **Library Header Files**.

The **object code** form of an **Application** may incorporate material from a **header file** that is part of **the Library**. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and **accessors**, or small **macros**, **inline functions** and **templates** (ten or fewer lines in length), you do both of the following:

對法務來說，也是很多都不懂的名詞
也不要說法務，非資深工程師大概也不懂意義

為甚麼大家不懂？－法務不懂

一堆專有名詞，在法務的眼中，大概是這一種感覺

首先pre-mRNA需要加上一個5'端帽(capping)--經過甲基化(methylation)修飾的鳥嘌呤被加到mRNA的3'端。這個5'端帽對於mRNA運輸到細胞質並與之後接到適當的核糖體，以及mRNA本身的穩定是相當重要的。mRNA如果缺乏5'端帽，則很容易就被降解掉。而mRNA由5'到3'的降解亦是由移除5'端帽開始。

那就不要管授權？

1. 留下把柄給對手抓或是駭客等抓
2. 寫了可以安心入睡

讓我們來看看被抓的下場

違反授權

2013年 3 月 adhoc dataservice GmbH 與
Buhl Data Service GmbH 兩間德國公司在 Bochum 地方法院達成和解協議
這是針對違反 LGPL-3.0授權條款所達成的法庭和解

.....

被告支付原告 15,000 歐元的損害賠償金

<https://ossf.denny.one/tw/legal-column-list/8986-introduction-to-lgpl-3-0-lawsuit-freeadhocudf.html>

違反授權 – 中國大陸的例子

最后，被诉“点心桌面”App(V6.5.8)应当遵循GPL 3.0协议向公众无偿开放源代码。被告福建风灵公司使用了附带GPL 3.0协议的开源代码，却拒不履行GPL 3.0协议规定的使用条件。

...

被告福建风灵创景科技有限公司、被告北京风灵创景科技有限公司
应于本判决生效之日起十日内赔偿原告济宁市罗盒网络科技有限公司
经济损失及维权合理费用共计50万元

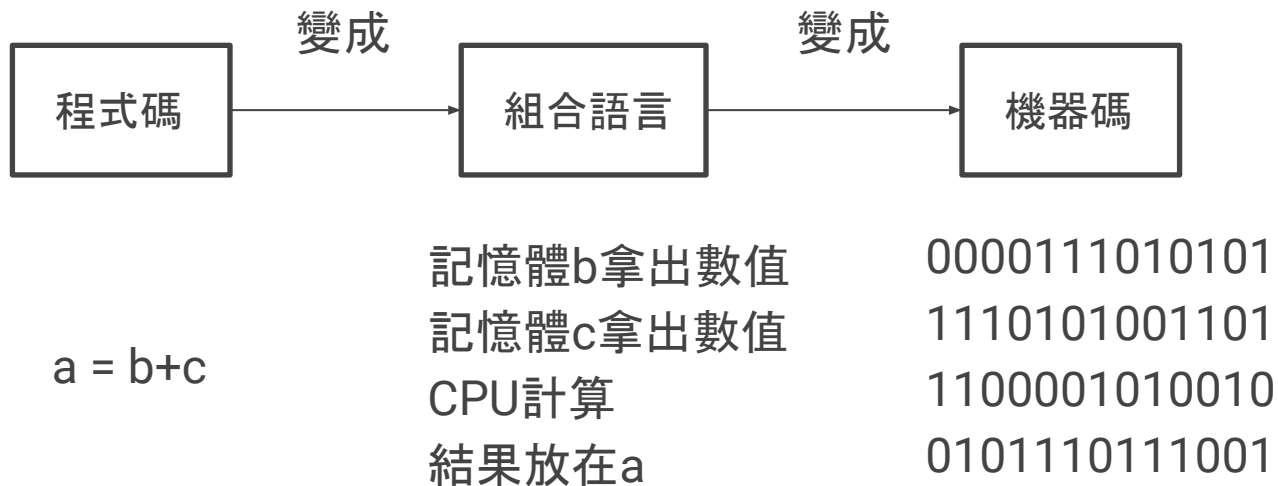
不過別人怎麼知道我用了甚麼？



有這一些工具可以讓別人比較機器碼

機器碼？

程式可以在電腦上執行方式



小結論

- Open source 用了要注意
- 就算用了，別人也有可能會知道你用了甚麼

好像有聽過？

Copyleft

Copycenter

Copyright

A decorative orange triangle is located in the bottom right corner of the slide. A solid orange horizontal bar spans the entire width of the slide at the bottom.

copyright



這是我的東西，你要怎麼使用要問我

Copyright – 例子

Office

1. 你不可以隨便安裝到任意電腦上，需要microsoft授權
2. 你不能任意出租Office到其他人電腦上
3. 你不可以隨便下載、重製Office



Copyleft – License的傳染



強制被授權者使用**同樣授權**釋出**衍生作品**

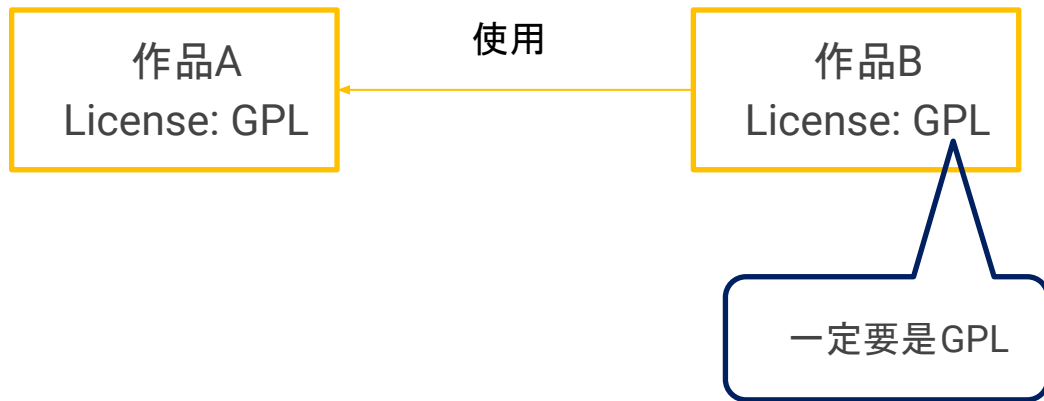
衍生作品？

你覺得下列哪些是延伸作品？

1. Office vs 用office打的文件
2. Linux vs 使用linux上寫python的程式碼
3. Linux vs 基於linux上的Ubuntu系統
4. OpenCV vs 用OpenCV做的產品

同樣授權?!

例如：一種叫做GPL的授權是屬於copyleft



Copyleft 和 Copyright

用了Copyleft(著佐權)就是放棄Copyright(著作權)?

錯誤

Copyleft 和 Copyright

Copyleft (中文翻譯包括：**著作傳**^{[1][2]}、**著佐權**^[3]、「著作權屬左」、「著作權左派」、「公共版權」^[4]等^[5])，源自自由軟體運動，是一種利用現有**著作權** (英語：copyright) 體制來保障使用者軟體自由使用權利的授權方式

Form wiki

Copycenter

- 又稱 **寬鬆自由軟體授權條款**
- 只要符合一些**條件**就可以自由使用
- 使用之後, 你可以自訂想要的license
- 看到記得大笑三聲

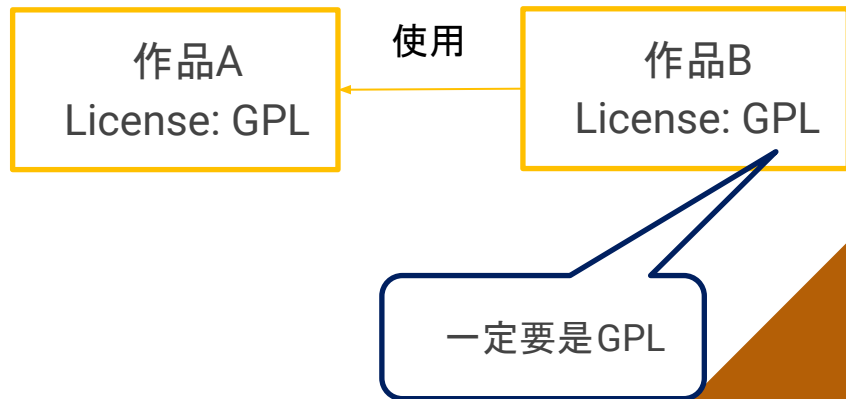
常見的license

- GPL (GNU GPL)
- 創用CC
- MIT
- Apache-2.0
- BSD
- LGPL

GPL

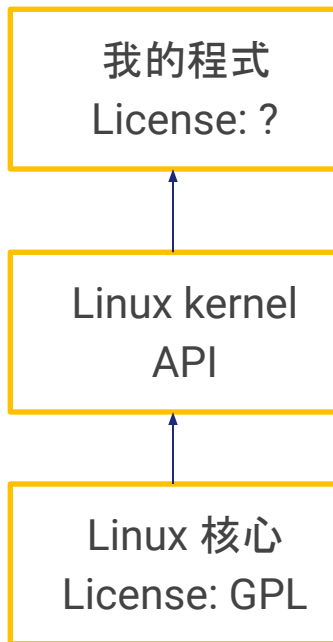
- 非常標準的copyleft的license
- 只要是GPL的延伸作品必須要是GPL
- GPL程式必須要開放
- 常見的有: Linux、OpenOffice

結論：如果你要商用，不建議用GPL



關於GPL，哪裡怪怪的？

如果我是呼叫linux底層的程式，那是否要開源？



我的License是否是GPL？

理論上是，但是他有例外

Linux的Kernel module 的license有一句話

NOTE! This copyright does **not** cover user programs that use kernel services by normal system calls

我的License不用是GPL

<https://spdx.org/licenses/Linux-syscall-note.html>

這是有一些人會說不能在linux上
商用的原因 – 但是其實可以

創用CC

圖片比較常見，程式比較少

你可以選擇：標示姓名、非商用、禁止改作、相同方式分享(copyleft)
他有四個要素



姓名標示表示：

您必須按照著作人或授權人所指定的方式，表彰其姓名



非商業性表示：

您不得因獲取商業利益或私人金錢報酬為主要目的來利用作品



禁止改作表示：

您僅可重製作品不得變更、變形或修改

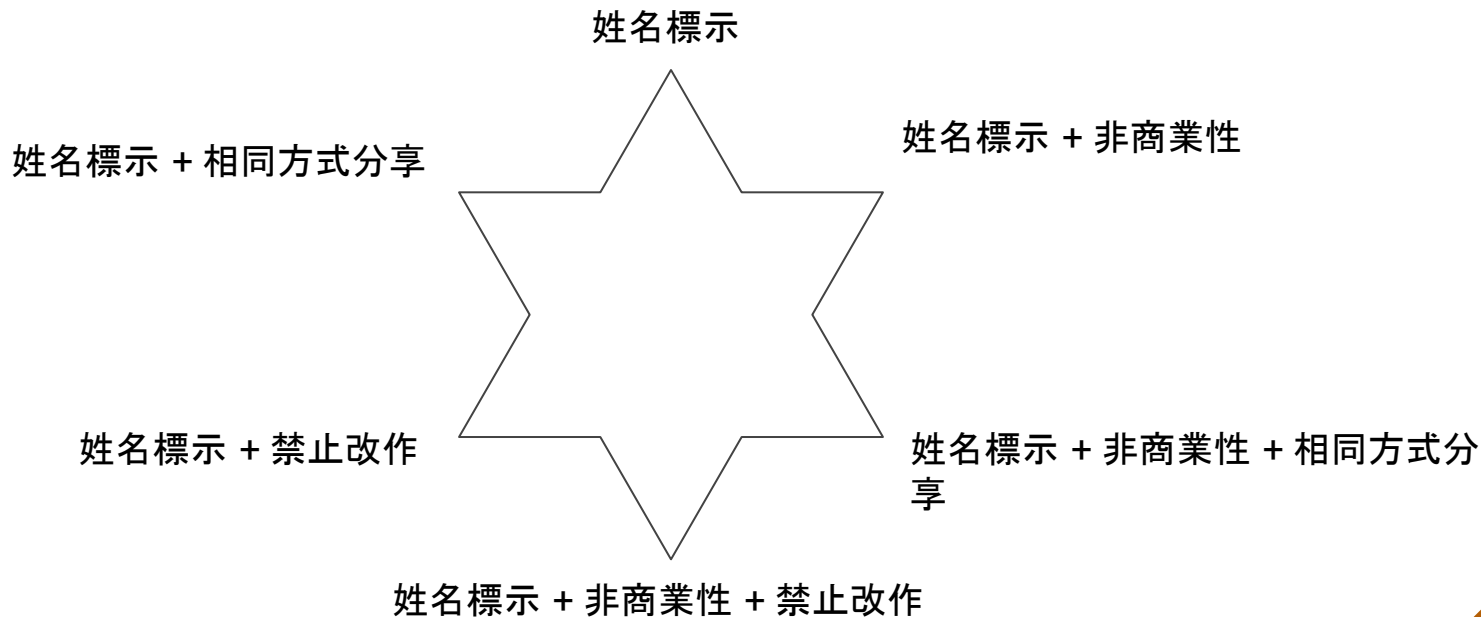


相同方式分享表示：

若您變更、變形或修改本著作，則僅能依同樣的授權條款來散布該衍生作品

創用CC

四個要素，可以組成六種授權



創用CC - 姓名標示

條文：

本授權條款允許使用者重製、散布、傳輸以及修改著作（包括商業性利用），惟使用時必須按照著作人或授權人所指定的方式，表彰其姓名。

白話：要放作者名字，剩下要怎麼用就怎麼用



創用CC - 姓名標示 + 非商業性

條文：

本授權條款允許使用者重製、散布、傳輸以及修改著作，但不得為商業目的之使用。使用時必須按照著作人指定的方式表彰其姓名。

白話：要放作者名字，不能商用，剩下就不管了



創用CC - 姓名標示 + 非商業性 + 相同方式分享

條文：

本授權條款允許使用者重製、散布、傳輸以及修改著作，但不得為商業目的之使用。若使用者修改該著作時，僅得依本授權條款或與本授權條款類似者來散布該衍生作品。使用時必須按照著作人指定的方式表彰其姓名。

白話：要放作者名字，不能商用，copyleft（延伸物要同樣授權）

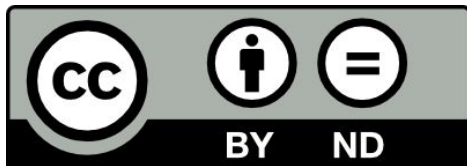


創用CC - 姓名標示 + 禁止改作

條文：

本授權條款允許使用者重製、散布、傳輸著作（包括商業性利用），但不得修改該著作。使用時必須按照著作人指定的方式表彰其姓名。

白話：要放作者名字，不能修改該著作

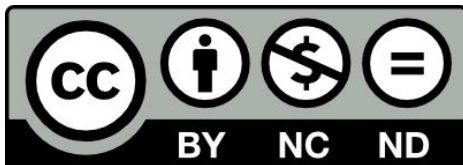


創用CC - 姓名標示 + 非商業性 + 禁止改作

條文：

本授權條款允許使用者重製、散布、傳輸著作，但不得為商業目的之使用，亦不得修改該著作。使用時必須按照著作人指定的方式表彰其姓名。

白話：要放作者名字，不能修改該著作，而且不能商用

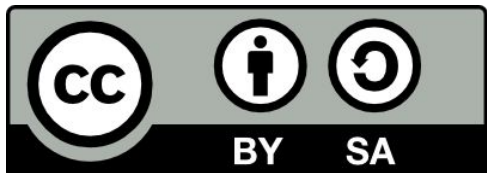


創用CC - 姓名標示 + 相同方式分享

條文：

本授權條款允許使用者重製、散布、傳輸以及修改著作（包括商業性利用）。若使用者修改該著作時，僅得依本授權條款或與本授權條款類似者來散布該衍生作品。使用時必須按照著作人指定的方式表彰其姓名。

白話：要放作者名字，而且copyleft（延伸物要同樣授權）



MIT


- 一個寬鬆的license (copyleft)
- 在軟體和軟體的所有副本中都必須包含以上著作權聲明和本許可聲明
- 剩下的想要怎麼用就怎麼用

許可聲明放哪裡？

分成兩種來討論

1. 公開程式碼 ex 放在github上
2. 已經包裝成套裝軟體 ex 變成手機app


公開程式碼









 rails / rails Public

Watch 2.4k Fork 20.2k

[Code](#) [Issues 358](#) [Pull requests 244](#) [Actions](#) [Projects 2](#) [Security 3](#) [Insights](#)

main 63 branches 471 tags Go to file Add file Code

 **gmcgibbon** Merge pull request #44487 from ghousemohamed/patch-8 ... ✓ fa8c2dd 5 hours ago 🕒 83,048 commits


 .devcontainer	Fix typos in the script	3 months ago
 .github	Update stale issue comment to mention 7-0-stable	2 months ago
 actioncable	Add Oxford commas [ci-skip]	2 days ago
 actionmailbox	Replace "overwrite" with "override" [ci-skip]	2 days ago
 actionmailer	Add Oxford commas [ci-skip]	2 days ago
 actionpack	Merge pull request #44511 from p8/docs/permission-policy	6 hours ago
 actiontext	Implicitly assert no exception is raised in <code>assert_queries</code> & al	4 days ago
 actionview	Fix formatting of parameters doc [ci-skip]	2 days ago


About


Ruby on Rails


rubyonrails.org


ruby rails html activerecord framework mvc activejob


 Readme

 MIT License

 Code of conduct

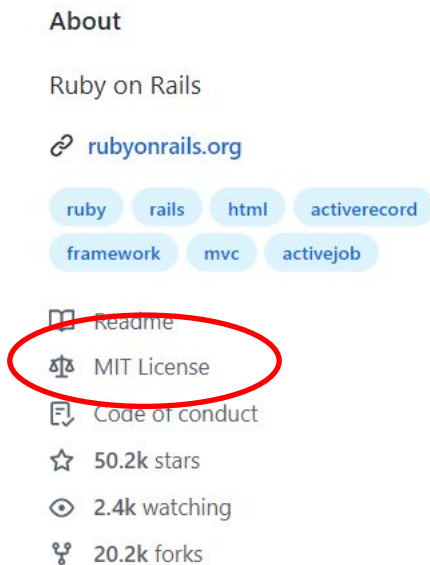
 50.2k stars

 2.4k watching

 20.2k forks

公開程式碼

在github旁邊



<https://github.com/rails/rails>

公開程式碼

tools	Replace webpack with importmapped Hotwire as default js (#42999)	6 months ago
.gitattributes	adds .gitattributes to enable Ruby-awareness	6 years ago
.gitignore	Depend on ruby/debug, replacing Byebug	6 months ago
.rubocop.yml	Enable Performance/OpenStruct	5 days ago
.yardopts	Updating .yardopts to document .rb files in [GEM]/app	3 years ago
.yarnrc	Make Webpacker the default JavaScript compiler for Rails 6 (#33079)	3 years ago
Brewfile	Address `Error: caskroom/cask was moved. Tap homebrew/cask-cask ins...	2 years ago
CODE_OF_CONDUCT.md	Update CODE_OF_CONDUCT.md	last month
CONTRIBUTING.md	Fix 404 links on https://rubyonrails.org/ [ci-skip]	2 months ago
Gemfile	Upgrade to sdock 2.3.1	8 days ago
Gemfile.lock	Upgrade to sdock 2.3.1	8 days ago
MIT-LICENSE	Bump license years to 2022 [ci-skip]	2 months ago
RAILS_VERSION	Start Rails 7.1 development	3 months ago

公開程式碼

基本上就是複製貼上些內容

```
1 Copyright (c) 2005-2022 David Heinemeier Hansson
2
3 Permission is hereby granted, free of charge, to any person obtaining
4 a copy of this software and associated documentation files (the
5 "Software"), to deal in the Software without restriction, including
6 without limitation the rights to use, copy, modify, merge, publish,
7 distribute, sublicense, and/or sell copies of the Software, and to
8 permit persons to whom the Software is furnished to do so, subject to
9 the following conditions:
10
11 The above copyright notice and this permission notice shall be
12 included in all copies or substantial portions of the Software.
13
14 THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,
15 EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF
16 MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND
17 NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE
18 LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION
19 OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION
20 WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.
```

包裝成套裝軟體



← 條款與政策

- 服務條款
當你使用 Facebook 時所同意的使用條款。
- 資料政策
我們收到的資訊及運用方式。
- 社群守則
瞭解禁止事項和檢舉濫用的詳情。
- ... 更多資源

← 資源

- 廣告及動態贊助
- 粉絲專頁
- 推廣活動
- Facebook 開放平台
- 開發人員付款條款
- 社群付款條款
- Cookie 和像素
- 品牌資源
- 第三方通知

包裝成套裝軟體

11:38 100% 84%

← 第三方通知

MIT License

The following component(s) are licensed under the MIT License reproduced below:

- animal-sniffer-annotations, Copyright (c) 2009 codehaus.org
- appdirs 1.4.4, Copyright (c) 2005-2010 ActiveState Software Inc.
- ARM ComputeLibrary, Copyright (c) 2017-2019 ARM Software
- asn1crypto, Copyright (c) 2015-2019 Will Bond <will@wbond.net>
- babel, Copyright (c) 2014-present Sebastian McKenzie and other contributors
- Brotli, Copyright (c) 2009, 2010, 2013-2016 by the Brotli
- c-ares 1.12.10, Copyright 1998, 2011 by the Massachusetts Institute of Technology
- Demo Code for Sorting a Linked List by Simon Tatham, copyright 2001 Simon Tatham
- FeatherIcons, Copyright (c) 2013-2017 Cole Bemis
- FP16, Copyright (c) 2017 Facebook Inc., Copyright (c) 2017 Georgia Institute of Technology, Copyright 2019 Google LLC
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- FXdiv, Copyright (c) 2016-2017 Marat Dukhan, Copyright (c) 2017 Facebook Inc.
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- GLM Copyright (c) 2005 - 2014 G-Truc

Continued...

人家大廠就示範過給你看了

MIT 結論

- 純粹使用的話
 1. 不用開源
 2. 要放聲明

- 使用而且想要公開程式碼的話
 1. 要放licnese檔案

Apache-2.0

- Copycenter
- 在法律上定義嚴謹
- 保留各項聲明
- 要標示誰修改了
- 需要給代碼的用戶一份Apache Licence

經典代表：android

Apache-2.0

About

Official Jetpack Compose samples.

 developer.android.com/jetpack/compose

android

jetpack-compose

 Readme

 Apache-2.0 License

 10.8k stars






 308 watching

 2.3k forks

<https://github.com/android/compose-samples>

Apache-2.0

基本上就是複製貼上LICENSE檔案就是了

 scripts	Finish checksum.sh sentence (#622)	6 months ago
 .gitignore	Updating Licence, readme and .gitignore for launch	2 years ago
 CONTRIBUTING.md	Merge pull request #562 from yogurtearl/patch-1	8 months ago
 LICENSE	Fix custom notice in LICENSE file	9 months ago
 README.md	[Jetchat] Update READMEs	4 months ago

Apache-2.0 - 標示誰修改了甚麼？

在檔案的最前面會有

```
# Copyright 2012 OpenStack Foundation
# Copyright 2010 United States Government as represented by the
# Administrator of the National Aeronautics and Space Administration.
# Copyright 2011 - 2012 Justin Santa Barbara
# All Rights Reserved.
#
# Licensed under the Apache License, Version 2.0 (the "License"); you may
# not use this file except in compliance with the License. You may obtain
# a copy of the License at
#
#     http://www.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS, WITHOUT
# WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the
# License for the specific language governing permissions and limitations
# under the License.

from oslo_log import log
```

https://docs.openstack.org/keystone/10.0.2/10.0.2/_modules/keystone/common/authorization.html

Apache-2.0 - 標示誰修改了甚麼？

再加上一句

(Modifications) copyright 2022 <name/company>

當然，你舊的也不能刪除

BSD

- Copycenter
- 發佈的產品中包含源代碼，則在源代碼中必須帶有原來代碼中的BSD協議
- 再發佈的只是二進制類庫/軟件，則需要在類庫/軟件的文檔和版權聲明中包含原來代碼中的BSD協議
- 不可以用開源代碼的作者/機構名字和原來產品的名字做市場推廣
- 經典案例: google test

一樣去github上看範例

📁 googletest	Address conversion warning by explicitly casting to size_t
📄 .clang-format	Googletest export
📄 .gitignore	Minor build system fixes.
📄 BUILD.bazel	Fix linker errors on FreeBSD.
📄 CMakeLists.txt	Set CMake Policy CMP0077 to NEW
📄 CONTRIBUTING.md	Merge pull request #3519 from AkashKumarSingh11032001:master
📄 CONTRIBUTORS	Googletest export
📄 LICENSE	Wrong LICENSE file, sorry. Corrected. [skip ci]

About

GoogleTest - Google Testing and Mocking Framework

[🔗 google.github.io/googletest/](https://github.com/google/googletest/)

📖 Readme

📜 BSD-3-Clause License

📄 Code of conduct

☆ 25.2k stars

👁 1.2k watching

🍴 8.3k forks

<https://github.com/google/googletest>

一樣看看人家怎麼放的

一樣複製貼上這一些內容

```
1 Copyright 2008, Google Inc.
2 All rights reserved.
3
4 Redistribution and use in source and binary forms, with or without
5 modification, are permitted provided that the following conditions are
6 met:
7
8     * Redistributions of source code must retain the above copyright
9       notice, this list of conditions and the following disclaimer.
10    * Redistributions in binary form must reproduce the above
11      copyright notice, this list of conditions and the following disclaimer
12      in the documentation and/or other materials provided with the
13      distribution.
14    * Neither the name of Google Inc. nor the names of its
15      contributors may be used to endorse or promote products derived from
16      this software without specific prior written permission.
17
18 THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
19 "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
20 LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
21 A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT
22 OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
23 SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
24 LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
```

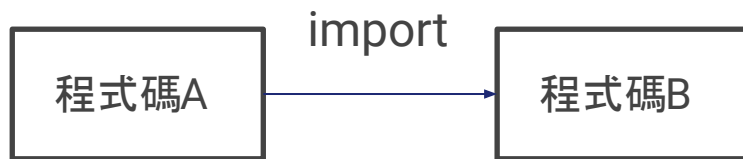
最麻煩的 - LGPL

在討論LGPL(Lesser General Public License) 之前, 我們要先弄清楚

1. 靜態連結
2. 動態連結

動態連結 / 靜態連結

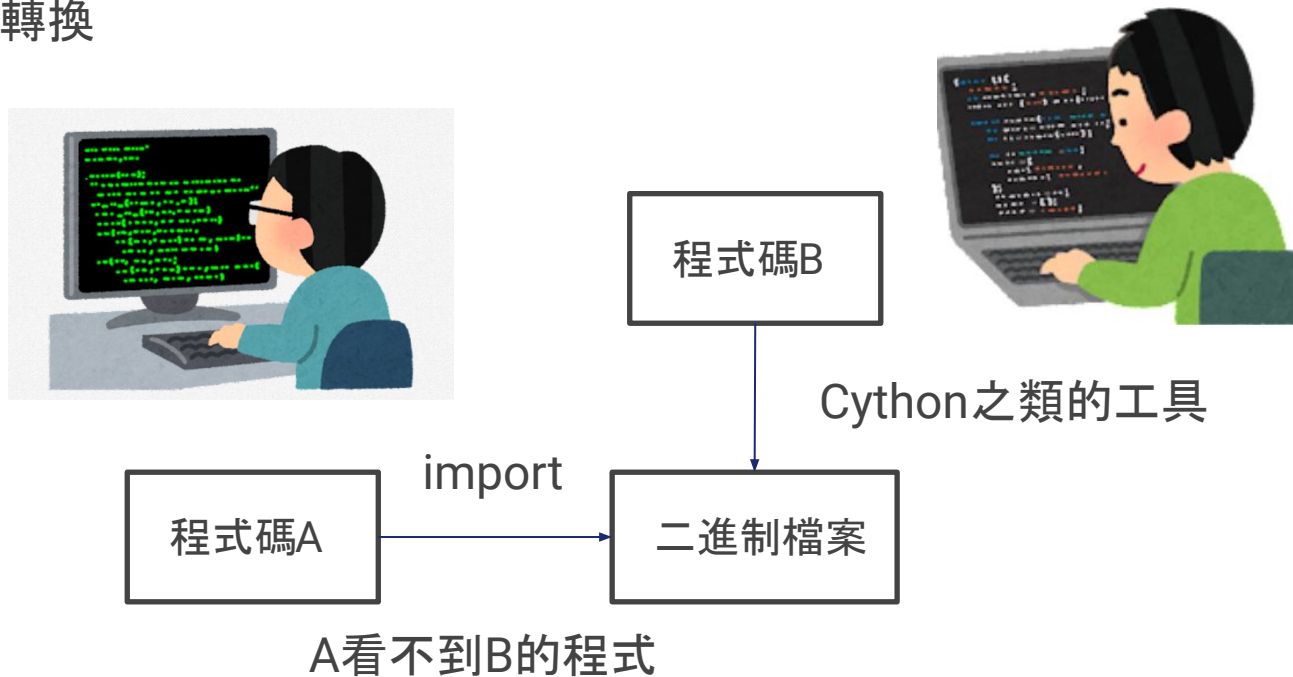
如果，我想和別人合作



A看的到B的程式

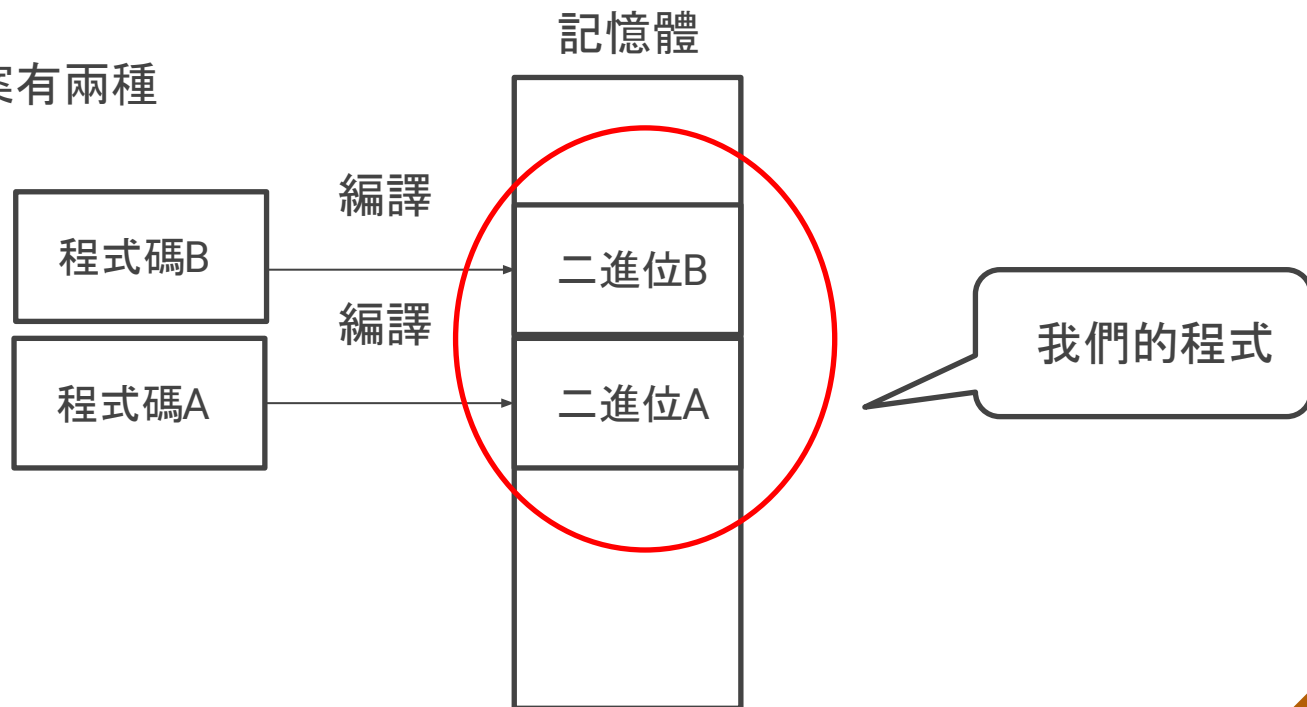
如果不想讓別人看到？

可以做下列轉換



動態連結 / 靜態連結

變成二進位檔案有兩種
動態vs靜態



靜態連結

如果A和C都有用到B



程式1

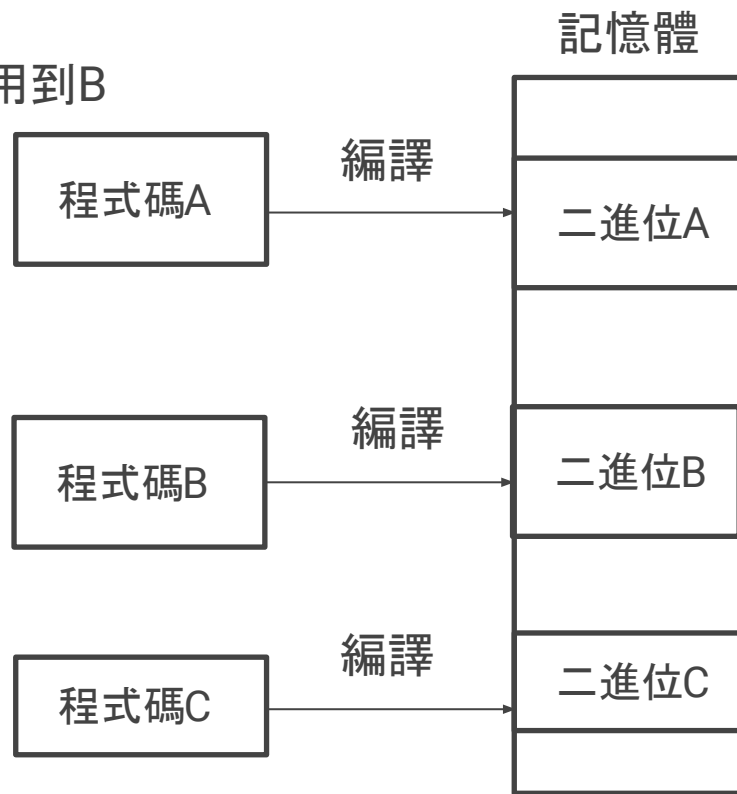
缺點: 佔有比較多記憶體
每次修改要編譯

好處: 動態連結的缺點

程式2

動態連結

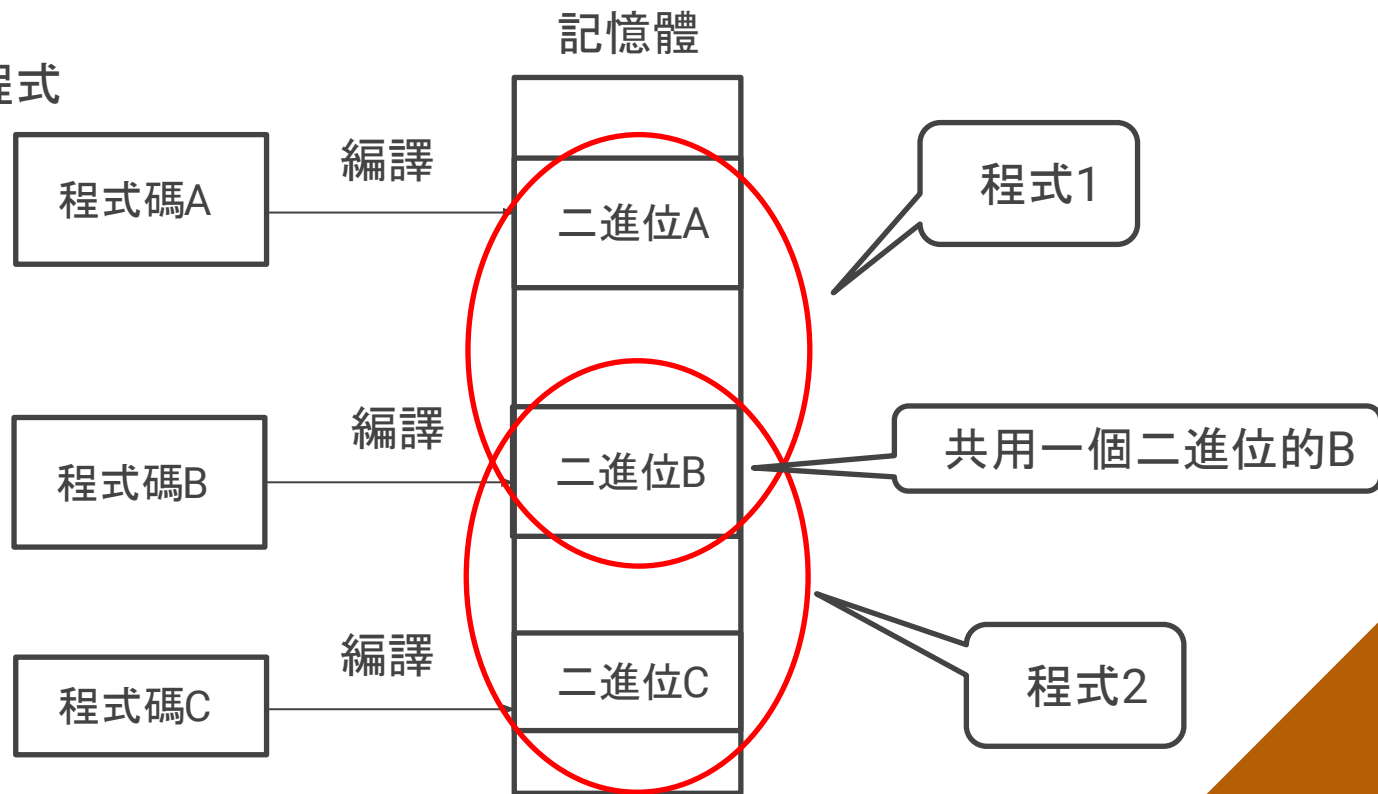
如果A和C都有用到B



B程式只會編譯一次
+
佔一個記憶體位置

動態連結

如果你有兩個程式



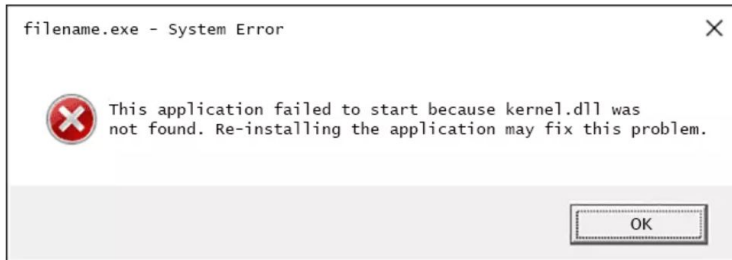
動態連結

好處:

1. 省記憶體
2. 不用重新編譯

缺點:

因為共用, 所以B為了A改版或是移除, C會出事(dll 地獄)



B 就是那個dll

回到那麻煩的LGPL

- GPL因為太嚴格了, 所以產生了LGPL這一種變形
- 只有一種狀態下不需要開源, 在特定條件下使用動態連結
- 常見的: QT(C++,Python的GUI)、Eigne(矩陣計算)
- 一樣要放置申明

LGPL常見的錯誤

所以意思是

只要用動態連結就可以不用開源？

如果只使用header file, 沒有動態和靜態連結還是要開源？

錯誤

LGPL常見的錯誤 - 動態連結不用開源？

在常見QA有一個說明

If you dynamically link against an LGPLed library *already present on the user's computer*, you need not convey the library's source. On the other hand, if you yourself convey the executable LGPLed library along with your application, whether linked with statically or dynamically, you must also convey the library's sources, in one of the ways for which the LGPL provides.

如果跟程式一起打包，就算用動態連結LGPL還是要開源喔
使用在電腦原有的就不用

<https://www.gnu.org/licenses/gpl-faq.html#LGPLStaticVsDynamic>

LGPL常見的錯誤 - 只有header file需要開源？

如果你是寫C/C++，你會需要include header file，如果沒有任何連結
根據Eigne的說法，是不用開源

the LGPL requires you to:

- Say somewhere that that software uses Eigen, and that Eigen is LGPL-licensed.
- Give a link to the text of the [LGPL](#) license.

Since Eigen is only header files, you only need to honor Section 3 of the LGPL when distributing Eigen.

http://eigen.tuxfamily.org/index.php?title=Licensing_FAQ&oldid=1117#So_what_does_the_LGPL_require_me_to_do.3F

什麼是header file?

類似python的import

```
#include "my_class.h"
```

```
using namespace N;
```

```
int main()
```

```
{
```

```
    my_class mc;
```

```
    mc.do_something();
```

```
    return 0;
```

```
}
```

```
// my_class.h
```

```
namespace N
```

```
{
```

```
    class my_class
```

```
{
```

```
public:
```

```
    void do_something();
```

```
};
```

```
}
```

可以在這裡做定義和寫一些程式

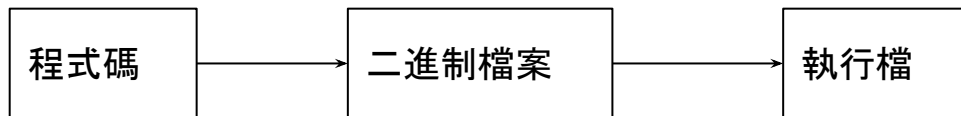
放上header file 不用開源, 但是要放object code

When a "work that uses the Library" uses material from a header file that is part of the Library, **the object code for the work may be a derivative work of the Library even though the source code is not.**

甚麼是object code?

Object code

Python 沒有Object code這東西
C 和C++會有



最後，記得一樣要放上聲明

← 第三方通知

GNU Lesser General Public License v2.1 or later

The following component(s) are licensed under the GNU Lesser General Public License v2.1 or later reproduced below:

- Apple WTF, Copyright (c) 2006, 2007, 2008, 2009, 2010, 2013 Apple Inc.
- librtmp, Copyright (c) 2009 Andrej Stepanchuk, Copyright (c) 2009-2010 Howard Chu
- Mozilla requests, Copyright (C) 1998 the Initial Developer. All Rights Reserved.

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

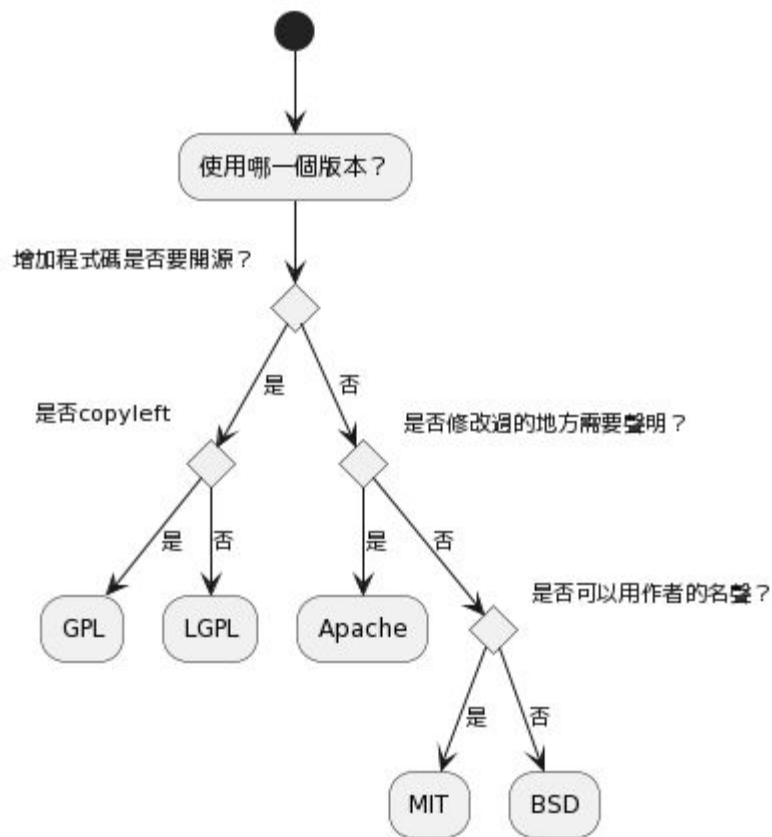
This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

回顧一下

- GPL (GNU GPL) -> 用了要開源
- 創用CC -> 看他怎麼標示, 但是要放作者
- MIT -> 要放聲明
- Apache-2.0 -> 要放聲明
- BSD -> 要放聲明
- LGPL -> 要放聲明 + 看情境

回顧一下



操作時間

幫自己的github上的文件加入license吧！

The screenshot shows a GitHub repository interface. At the top, there are navigation buttons: 'Go to file', 'Add file', and 'Code'. Below these, the repository name 'leo.wu' is shown with 'sixth commit' and a commit hash '3753fd7' from '11 days ago' with '6 commits'. A table lists two files: 'git_test.txt' (second commit, 11 days ago) and 'git_test2.txt' (sixth commit, 11 days ago). A blue banner prompts to 'Add a README'. On the right, the 'About' section states 'No description, website, or topics provided.' and shows '0 stars', '1 watching', and '0 forks'. The 'Releases' section says 'No releases published' with a link to 'Create a new release'. The 'Packages' section says 'No packages published' with a link to 'Publish your first package'.

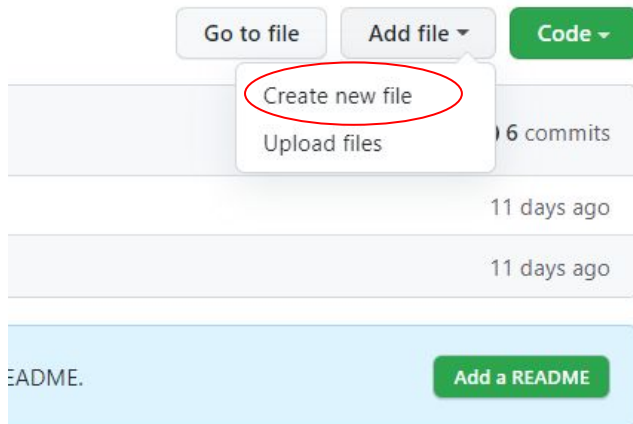
File	Commit	Time
git_test.txt	second commit	11 days ago
git_test2.txt	sixth commit	11 days ago

沒有license的標記，其他人不敢用

新增license檔案

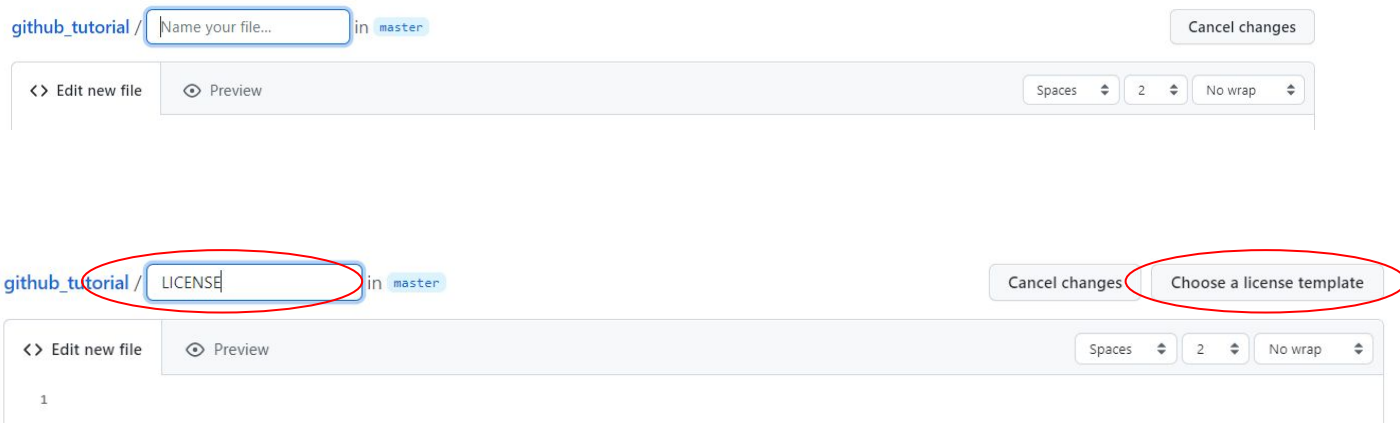
按下新增檔案

Add file -> Create new file



新增license檔案

輸入license會出現
choose a license template



license的選擇

Add a license to your project

Apache License 2.0	<p>A short and simple permissive license with conditions only requiring preservation of copyright and license notices. Licensed works, modifications, and larger works may be distributed under different terms and without source code.</p> <table><thead><tr><th>Permissions</th><th>Limitations</th><th>Conditions</th></tr></thead><tbody><tr><td>✓ Commercial use</td><td>✗ Liability</td><td>① License and copyright notice</td></tr><tr><td>✓ Modification</td><td>✗ Warranty</td><td></td></tr><tr><td>✓ Distribution</td><td></td><td></td></tr><tr><td>✓ Private use</td><td></td><td></td></tr></tbody></table> <p>This is not legal advice. Learn more about repository licenses.</p>	Permissions	Limitations	Conditions	✓ Commercial use	✗ Liability	① License and copyright notice	✓ Modification	✗ Warranty		✓ Distribution			✓ Private use			<p>To adopt MIT License, enter your details. You'll have a chance to review before committing a <i>LICENSE</i> file to a new branch or the root of your project.</p> <p>Year ⓘ 2022</p> <p>Full name ⓘ JuFengWu</p> <p>Review and submit</p>
Permissions		Limitations	Conditions														
✓ Commercial use		✗ Liability	① License and copyright notice														
✓ Modification		✗ Warranty															
✓ Distribution																	
✓ Private use																	
GNU General Public License v3.0																	
MIT License																	
BSD 2-Clause "Simplified" License																	
BSD 3-Clause "New" or "Revised" License																	
Boost Software License 1.0																	
Creative Commons Zero v1.0 Universal																	
Eclipse Public License 2.0																	
GNU Affero General Public License v3.0																	
GNU General Public License v2.0																	
GNU Lesser General Public License v2.1																	

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自動匯入license的檔案

github_tutorial /

LICENSE

<> Edit new file

👁 Preview

```
1 MIT License
2
3 Copyright (c) 2022 JuFengWu
4
5 Permission is hereby granted, free of charge, to any person obtaining a copy
6 of this software and associated documentation files (the "Software"), to deal
7 in the Software without restriction, including without limitation the rights
8 to use, copy, modify, merge, publish, distribute, sublicense, and/or sell
9 copies of the Software, and to permit persons to whom the Software is
10 furnished to do so, subject to the following conditions:
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12 The above copyright notice and this permission notice shall be included in all
13 copies or substantial portions of the Software.
14
15 THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
16 IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
17 FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE
18 AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER
19 LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM,
20 OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE
21 SOFTWARE.
22
```

會出現pull request

The screenshot shows a GitHub Pull Request interface. At the top, the navigation bar includes 'Code', 'Issues', 'Pull requests' (highlighted with a red circle and a count of 1), 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. The main heading is 'Create LICENSE #1'. Below it, a green button labeled 'Open' is followed by the text 'JuFengWu wants to merge 1 commit into master from add-license-1'. A summary bar shows 'Conversation 0', 'Commits 1', 'Checks 0', and 'Files changed 1'. A comment by 'JuFengWu' from 1 minute ago says 'add license'. Below the comment, a commit titled 'Create LICENSE' is shown as verified. A message states: 'Add more commits by pushing to the add-license-1 branch on JuFengWu/github_tutorial.' A green box contains two status messages: 'Continuous integration has not been set up' and 'This branch has no conflicts with the base branch'. At the bottom, a green button labeled 'Merge pull request' is circled in red, with a link to 'view command line instructions'.

<> Code Issues **Pull requests** 1 Actions Projects Wiki Security Insights Settings

Create LICENSE #1

Open JuFengWu wants to merge 1 commit into master from add-license-1

Conversation 0 Commits 1 Checks 0 Files changed 1

JuFengWu commented 1 minute ago

add license

Create LICENSE

Verified 38d289f

Add more commits by pushing to the add-license-1 branch on JuFengWu/github_tutorial.

Continuous integration has not been set up
GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

✓ This branch has no conflicts with the base branch
Merging can be performed automatically.

Merge pull request [or view command line instructions.](#)

各位還記得pull吧

完成了

[Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

Create LICENSE #1


[Open](#) JuFengWu wants to merge 1 commit into `master` from `add-license-1`

Conversation 0



Commits 1


Checks 0


Files changed 1

 JuFengWu commented 3 minutes ago Owner 😊 ⋮

add license

  Create LICENSE Verified 381239f

 JuFengWu merged commit `8c22151` into `master` now Revert



Pull request successfully merged and closed
You're all set—the `add-license-1` branch can be safely deleted. Delete branch

回到主頁面

沒有open的pull request

master 2 branches 0 tags

Go to file Add file Code

JuFengWu Merge pull request #1 from JuFengWu/add-license-1 8c22151 11 minutes ago 8 commits

LICENSE	Create LICENSE	15 minutes ago
git_test.txt	second commit	13 days ago
git_test2.txt	sixth commit	13 days ago

Help people interested in this repository understand your project by adding a README. Add a README

About

No description, website, or topics provided.

MIT License

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

多了LICENSE的檔案

顯示這一個專案的license

小補充 copy的年份

© 1999–2017 Behemoth Corporation.

1999表示這一個專案、網頁等是西元1999年第一次發布

1999-2017專案、網頁都有進行修改

如果有新的License要怎麼判斷？

找看看有沒有中文資源

利用注意事項

› 使用者注意事項

› 開發者注意事項

法律常識

› 基本觀念

› 法律小辭典

› 問答集

› 案例

› 法律專欄

› 法政討論區

授權條款

› 授權條款介紹

› 授權 指引/ 精靈

› 授權條款比較表

› 授權條款相容性

› 授權條款分類表

法律源地

本網站法律源地提供相當多自由軟體授權與法律的資訊，歡迎您閱讀這些資訊。



授權條款介紹

自由軟體授權條款數量眾多，在這些授權條款中，鑄造場篩選出較被廣泛使用與常見的授權條款，加以介紹。透過這些介紹您可以迅速了解一份條款的由來、運用現況與重要權利義務等等內容。不過這些介紹內容僅為概括性，若您需要對於條款的權利義務規定有詳盡的了解，必須另行向相關領域的專家請教。



標題過濾

顯示數

所有的

數	項目標題	作者	點擊
1	Academic Free License Version 3.0 (AFL)	邱冠勛 Kuan-Hsun Chiu · 葛冬梅 Florence T.M. Ko	18631
2	Apache License 1.1 (Apache 1.1)	賴嘉倫 Chia Lun Lai	13249
3	Apache License 2.0 (Apache 2.0)	賴嘉倫 Chia Lun Lai	31932

<https://www.openfoundry.org/tw/licenses>

找看看有沒有中文資源

你也可以去wiki看看別人的說法

zlib授權條款 [編輯]

維基百科，自由的百科全書

zlib授權條款是一個**自由軟體授權授權條款**，它定義了 Zlib 軟體庫可以分發的條款。它也被許多其它免費軟體套件使用。**libpng**庫使用相似的授權條款，有時可互換稱為zlib/libpng授權條款。

zlib授權條款已被自由軟體基金會（FSF）批准為自由軟體授權條款^[1]也被開源計劃（OSI）批准為開源授權條款^[2]。它與GNU通用公眾授權條款相容。^[1]類似於**BSD授權**，除了必須註明來源，還應在釋出的軟體中保留此授權協定的副本。

目次 [隱藏]

- 1 條款
- 2 文檔
- 3 注釋
- 4 相關連結

條款 [編輯]

這個授權條款只有以下幾點要說明：

- 軟體按「原版」使用。作者對因使用而造成的任何損害不承擔任何責任。
- 軟體修改版本的分發受以下限制：
 - 不得歪曲軟體的作者身分，
 - 不得將更改的版本歪曲為原創軟體，**並且**
 - 不得從源發行版中刪除授權聲明。

如果分發二進位代碼，授權條款不需要提供原始碼。

zlib授權條款



作者	Jean-loup Gailly和Mark Adler
版本	1.2.11
釋出者	Jean-loup Gailly和Mark Adler
釋出日期	2017-01-15
DFSG 相容	是
自由軟體	是
OSI 認證	是
GPL 相容	是
Copyleft	不是
與其他協定代碼連結	是

再去SPDX找相關條文

SPDX(Software Package Data Exchange)

SPDX目的:

制定與推廣一套標示自由軟體授權資訊的標準格式, 以便利日後大家都可以透過程式對這些授權資訊進行自動化分析

<https://spdx.org/licenses/>

去看一些分析的網站

Browse Software Licenses & Summaries

🔍 Lookup License by Conditions

FEATURED

"Commons Clause" License Condition v1.0

Code License managed by kevin 25606 0

2 Rules 1 Rules 2 Rules

YouTube Terms of Service

Terms of Service managed by seldon 77556 8

Sleepycat License

Code License managed by valeriedouglas 30950 4

3 Rules 2 Rules 2 Rules

Fair Source License 0.9 (Fair-Source-0.9)

Code License managed by kevin 20635 5

6 Rules 3 Rules 3 Rules

Mozilla Public License 1.0 (MPL-1.0)

Code License managed by bfitzg 28734 6

5 Rules 1 Rules 4 Rules

GNU Lesser General Public License v3 (LGPL-3.0)

Code License managed by kevin 307884 15

5 Rules 2 Rules 6 Rules

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MIT License (Expat)

Code License managed by kevin 1126526 89

5 Rules 1 Rules 2 Rules

Apache License 2.0 (Apache-2.0)

Code License managed by kevin 791990 71

7 Rules 2 Rules 4 Rules

GNU General Public License v3 (GPL-3)

Code License managed by kevin 471831 49

5 Rules 2 Rules 6 Rules

GNU Lesser General Public License v3 (LGPL-3.0)

Code License managed by kevin 307884 15

5 Rules 2 Rules 6 Rules

BSD 3-Clause License (Revised)

Code License managed by kevin 273513 22

4 Rules 2 Rules 2 Rules

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4 Rules 2 Rules 5 Rules

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PokerStar

Code License managed by Najmeh 19739 0

Dell Mohali

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1 Rules 0 Rules 0 Rules

Homepage slider

Code License managed by gurjot 12309 0

kfkf

Code License managed by PulabaSrvanthi 13413 0

Tunecore's Music Publishing Administration

Code License managed by Hydra9268 10590 1

Simple Non Code License (SNCL) 2.1.0

Code License managed by MysteryDash 14511 4

3 Rules 2 Rules 4 Rules

之後會詳細的說明

為甚麼要開源？

你覺得，這一些人/公司為甚麼要把程式開源？

為甚麼要開源？

1. 找工作
2. 增加公司的名氣
3. 當作某種試用
4. 變成某種行業標準
5. 養、套、殺
6. 增進全人類的福祉

為甚麼要開源？

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3. 當作某種試用
4. 變成某種行業標準
5. 養、套、殺
6. 增進全人類的福祉



可以利用license進行保護

舉例 - SOEM

SOEM有兩個版本，免費版和付費版

免費版：GPL

Legal notice

Licensed under the GNU General Public License version 2 with exceptions. See LICENSE file in the project root for full license information

舉例 - SOEM

SOEM有兩個版本，免費版和付費版

付費版：可以商用

PRICE AND DOCUMENTATION

How to obtain	https://github.com /OpenEtherCATsociety/SOEM
Price	EUR 3000 per product/project

聽起來很棒，我也想要開源程式

做一個開源程式
版權上要注意什麼？

製作開源軟體版權上要注意的

要做的工作很簡單

1. 選擇你的程式license
2. 標示出來

製作開源程式

好麻煩
為什麼還要想版權？

如果沒有放上版權

用了會不會被告？

The screenshot shows a GitHub repository page for 'QiSheng918/jaka_ros'. At the top, there are navigation links for 'master' (selected), '1 branch', and '0 tags'. To the right are buttons for 'Go to file' and 'Code'. Below this is a table of files and folders with their commit messages and timestamps. To the right of the table is the 'About' section, which states 'No description, website, or topics provided.' and shows '1 star', '1 watching', and '1 fork'. Below that is the 'Releases' section, which states 'No releases published'. At the bottom right, there is a 'Packages' section.

File/Folder	Commit Message	Timestamp
.vscode	调试实际机器人控制柜10000端口获取机器人状态信息	16 months ago
jaka_control	修改README文件	16 months ago
jaka_controller_tcp_ros	添加新版JAKAros驱动	10 months ago
jaka_description	添加新版JAKAros驱动	10 months ago
jaka_moveit_config	添加新版JAKAros驱动	10 months ago
universal_msgs	在原有的Jaka ros驱动上添加了servo_j功能	16 months ago
README.md	修改README文件	16 months ago

About
No description, website, or topics provided.
Readme
1 star
1 watching
1 fork

Releases
No releases published

Packages

https://github.com/QiSheng918/jaka_ros

如選擇版權？

請從這三個方面思考

1. 使用者**必須**要做什麼？
2. 你允許使用者**可以**做什麼？
3. 你**禁止**使用者做什麼？

例如：

使用者必須要放上license

使用者可以商用

使用者不行追究我的責任

->MIT license

如果是開源程式 - 推薦的參考網站

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綠色: 你可以做

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Code License managed by valeriedouglas

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3 Rules 2 Rules 2 Rules

Fair Source License 0.9 (Fair-Source-0.9)

Code License managed by kevin

20635 5

6 Rules 3 Rules 3 Rules

Mozilla Public License 1.0 (MPL-1.0)

Code License managed by bfitzg

28734 6

5 Rules 1 Rules 4 Rules

GNU Lesser General Public License v3 (LGPL-3.0)

Code License managed by kevin

307884 15

5 Rules 2 Rules 6 Rules

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MIT License (Expat)

Code License managed by kevin

1126526 89

5 Rules 1 Rules 2 Rules

Apache License 2.0 (Apache-2.0)

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NEWEST

PokerStar

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19739 0

Dell Mohali

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13670 1

1 Rules 0 Rules 0 Rules

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Tunecore's Music Publishing Administration

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10580 1

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14511 4

2 Rules 2 Rules 4 Rules

<https://tldrlegal.com/licenses/browse>

如果是開源程式 - 最推薦的參考網站

GNU Lesser General Public License v3 (LGPL-3.0)

Code License managed by [kevin](#), submitted 6 years ago. [#OSI-Approved](#) [#GNU](#) [#Copyleft](#) [#Weak Copyleft](#) [#Open Source](#)

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307886

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Quick Summary [Edit](#)

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如果是開源程式 - 其他參考網站

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An open source license protects contributors and users. Businesses and savvy developers won't touch a project without this protection.

{ Which of the following best describes your situation? }



I need to work in a community.

Use the [license preferred by the community](#) you're contributing to or depending on. Your project will fit right in.

If you have a dependency that doesn't have a license, ask its maintainers to [add a license](#).



I want it simple and permissive.

The [MIT License](#) is short and to the point. It lets people do almost anything they want with your project, like making and distributing closed source versions.

[Babel](#), [.NET Core](#), and [Rails](#) use the MIT License.



I care about sharing improvements.

The [GNU GPLv3](#) also lets people do almost anything they want with your project, except distributing closed source versions.

[Ansible](#), [Bash](#), and [GIMP](#) use the GNU GPLv3.

{ What if none of these work for me? }

My project isn't software.

[There are licenses for that.](#)

I want more choices.

[More licenses are available.](#)

I don't want to choose a license.

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<https://choosealicense.com/>

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https://creativecommons.org/choose/?lang=zh_TW

製作檔案的license很麻煩？

可以使用Reuse根據SPDX的格式去製作license



1. Choose and provide licenses
2. Add copyright and licensing information to each file
3. Confirm REUSE compliance

<https://reuse.software/tutorial/>

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我就是沒錢

可善用opensource的軟體

善用Opensource軟體

作業系統



微軟Windows



Linux最常見的發行版本
Ubuntu

善用Opensource軟體

文書處理



微軟Office



Google 文書處理

大部分的開源軟體

不要二次開發
就不用擔心版權問題

如果習慣了盜版軟體&被抓到

實際案例：

廣達(2382)旗下的GPS廠商鼎天(3306)因為涉嫌使用盜版繪圖軟體，遭到搜索，台灣軟體聯盟(BSA)對此指出，鼎天侵權的金額恐逾2億元

開源軟體很香
不用嘛？

貢獻開源軟體要注意的事情

請想一下一個情境：

A貢獻了一段程式碼給機構B讓他開源

過一陣子A發現跟B的理念不合

A因為有這一段程式碼的著作權，要求下架這一段程式碼

沒有這一段程式碼，程式將無法運作

這樣機構B光是打官司就要忙死了

因此有了CLA的這一個東西

CLA(Contributor License Agreement)

貢獻者許可協議

主要的重點：

貢獻者有程式碼的版權，同時授予組織 (ex Google)和項目的所有使用者有這一個版權

貢獻者的貢獻如果申請的專利，那授予組織 (ex Google)和項目的所有使用者也可以使用此專利

如何簽署？

以Google的CLA為例子



Google Open Source

About | Manage Agreements

Contributor License Agreements

Google Individual Contributor License Agreement

In order to clarify the intellectual property license granted with Contributions from any person or entity, Google LLC ("Google") must have a Contributor License Agreement ("CLA") on file that has been signed by each Contributor, indicating agreement to the license terms below. This license is for your protection as a Contributor as well as the protection of Google; it does not change your rights to use your own Contributions for any other purpose.

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"You" (or "Your") shall mean the copyright owner or legal entity authorized by the copyright owner that is making this Agreement with Google. For legal entities, the entity making a Contribution and all other entities that control, are controlled by, or are under common control with that entity are considered to be a single Contributor. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

8. You agree to notify Google of any facts or circumstances of which

Manage your Agreements

<https://cla.developers.google.com/about/google-individual>

以Google的CLA為例子

一種是個人簽署

公司或是組織簽署一個CLA, 公司或是組織自己維護一個名單

Sign a new agreement:

You plan to submit contributions on behalf of:

Only Yourself

Your Employer



* required fields

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Learn more about [managing email addresses for your account](#).

leowu102000@gmail.com

Name *

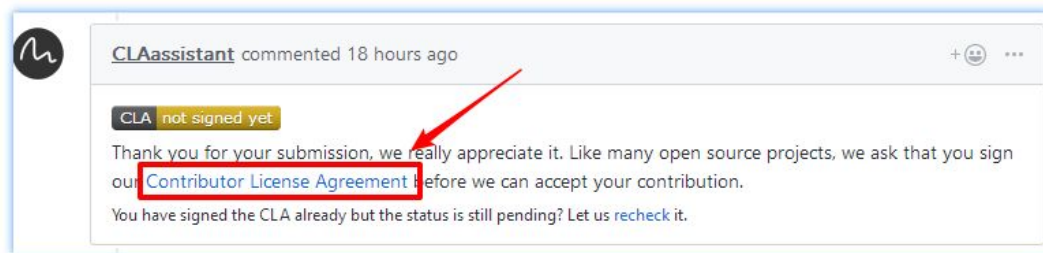
GitHub Username

If you [change your GitHub Username](#), please update it here too.

I Agree

如果不簽署CLA會怎樣？

在提交的時候他會出現的一個東西叫你簽署



所以以後看到這個不用怕，簽下去就對(錯誤)

CLA條文又多又長

DCO (Developer Certificate of Origin) 開發者原創證書

因為條文太多太麻煩，只要在commit簽署email就可以

主要是linux的貢獻者會要求

每一次commit的時候都需要

DCO條文

簽之前記得看一下

the project. Here is the full [text of the DCO](#), reformatted for readability:

By making a contribution to this project, I certify that:

1. The contribution was created in whole or in part by me and I have the right to submit it under the open source license indicated in the file; or
2. The contribution is based upon previous work that, to the best of my knowledge, is covered under an appropriate open source license and I have the right under that license to submit that work with modifications, whether created in whole or in part by me, under the same open source license (unless I am permitted to submit under a different license), as indicated in the file; or
3. The contribution was provided directly to me by some other person who certified 1., 2. or 3. and I have not modified it.
4. I understand and agree that this project and the contribution are public and that a record of the contribution (including all personal information I submit with it, including my sign-off) is maintained indefinitely and may be redistributed consistent with this project or the open source license(s) involved.

<https://github.com/apps/dco>

DCO簽署

只要在commit的時候加上-s就可以

```
git add .  
git commit -s -m 'test dco'
```

```
Author: leo.wu <leowu102000@gmail.com> 2022-02-27 12:39:46  
Committer: leo.wu <leowu102000@gmail.com> 2022-02-27 12:39:46  
Parent: 7dea87e9a1f8d1fa6581f73cef50d8496d90fdd1 (Made project REUSE compliant)  
Branch: master  
Follows:  
Precedes:
```


```
test dco
```


```
Signed-off-by: leo.wu <leowu102000@gmail.com>
```

知道為什麼git一開始要問你的email了吧！

如果沒有簽署DCO




你在做貢獻的時候可能會出問題






Some checks were not successful
1 failing and 2 successful checks

[Hide all checks](#)

✗	 DCO — All commits must have a DCO sign-off from the author	Required Details
✓	 continuous-integration/travis-ci/pr — The Travis CI build passed	Details
✓	 continuous-integration/travis-ci/push — The Travis CI build passed	Details



Required statuses must pass before merging
All required [status checks](#) on this pull request must run successfully to enable automatic merging.

Merge pull request

▼

You can also [open this in GitHub Desktop](#) or [view command line instructions](#).