

Open Source It Right

With REUSE and SPDX

Giacomo Tenaglia - ITLT 2023-06-09

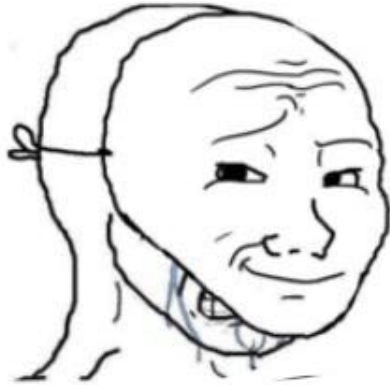
ONE DOES NOT SIMPLY

PUT IT ON GITHUB

Publishing check-list

- Copyright
- License

3D Artists



Sorry, I got
inspiration from your
model and made
mine



Nooooo, how could
you do that? Now I'm
gonna copyright strike
you!

Programmers



Hey man, I
copied your
code

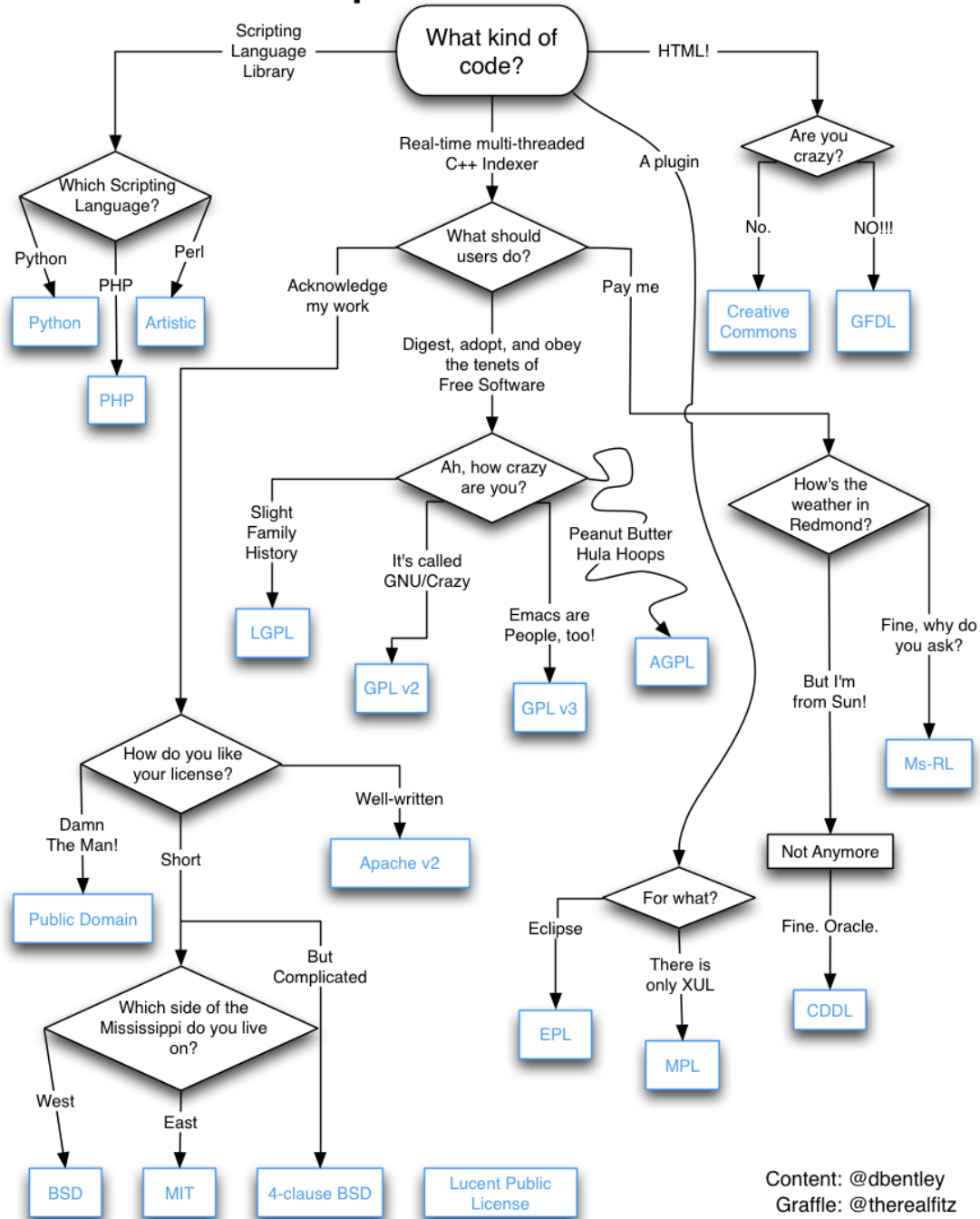


It wasn't
mine

Copyright

- Who owns the IP?
 - (Spoiler for CERN MPEs: it's CERN)

Which Open Source License?



Content: @dbentley
Graffle: @therealfitz

License

- Original work:
 - License of choice (GPLv3/Apache2/ecosystem-specific...)
- Combined/derivative work:
 - Who owns the IP? (see before)
 - Do you have a license to redistribute?
 - Check license compatibility.

Publishing check-list

-  Copyright
-  Licenses

CERN guidelines

- Open Source Software Licence Task Force report (2012)
- Policy on Software Dissemination (2017)

```
# Copyright (C) 2023, CERN
#
# This software is distributed under the terms of the GNU General Public
# Licence version 3 (GPL Version 3), copied verbatim in the file "COPYING".
#
# In applying this license, CERN does not waive the privileges and immunities
# granted to it by virtue of its status as Intergovernmental Organization
# or submit itself to any jurisdiction.
```

$$W = \lambda_k D D M H_1 + \mu H_1 H_2$$

$$D = 0$$

$$I = \alpha D D H_2 + \beta H_2 L \Rightarrow$$

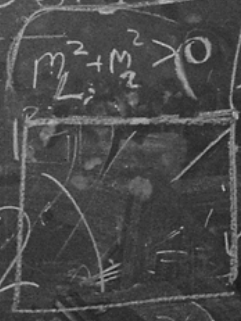
$$A_+ = A - \frac{(m_1^2 + m_2^2)}{2} \left[2 - \frac{30}{2} \right] m_0^2 - (x-1) m_{1/2}$$



$$A_4 = -0.6 M_0$$

$$A_3 = A$$

$$G = K + \ln |w|$$



$$\lambda H_1 L E_R + \mu H_1 H_2$$

$$D_R = (r, z, k, + 2)$$

$$D = M_p(t+t)$$

$$\left(\frac{r, p, H}{t-1} + 2 \right)$$

$$W = \langle H Z_i \rangle = M_W \times \frac{1}{2}$$

$$= -2 \ln \left(\frac{T_1 T - z z_1}{\dots} \right) \langle O V \rangle$$

$$\frac{m^d}{m_h} \frac{1}{a} (M_1(a) + M_2(a))$$

Barker, Koo

$$\epsilon \frac{d_i - h_i}{v_i}$$

$$\frac{q_{3+d, h}}{v_i}$$

REUSE SOFTWARE

Inofficial translations are available in: [Deutsch](#), [Česky](#), [Українська](#)

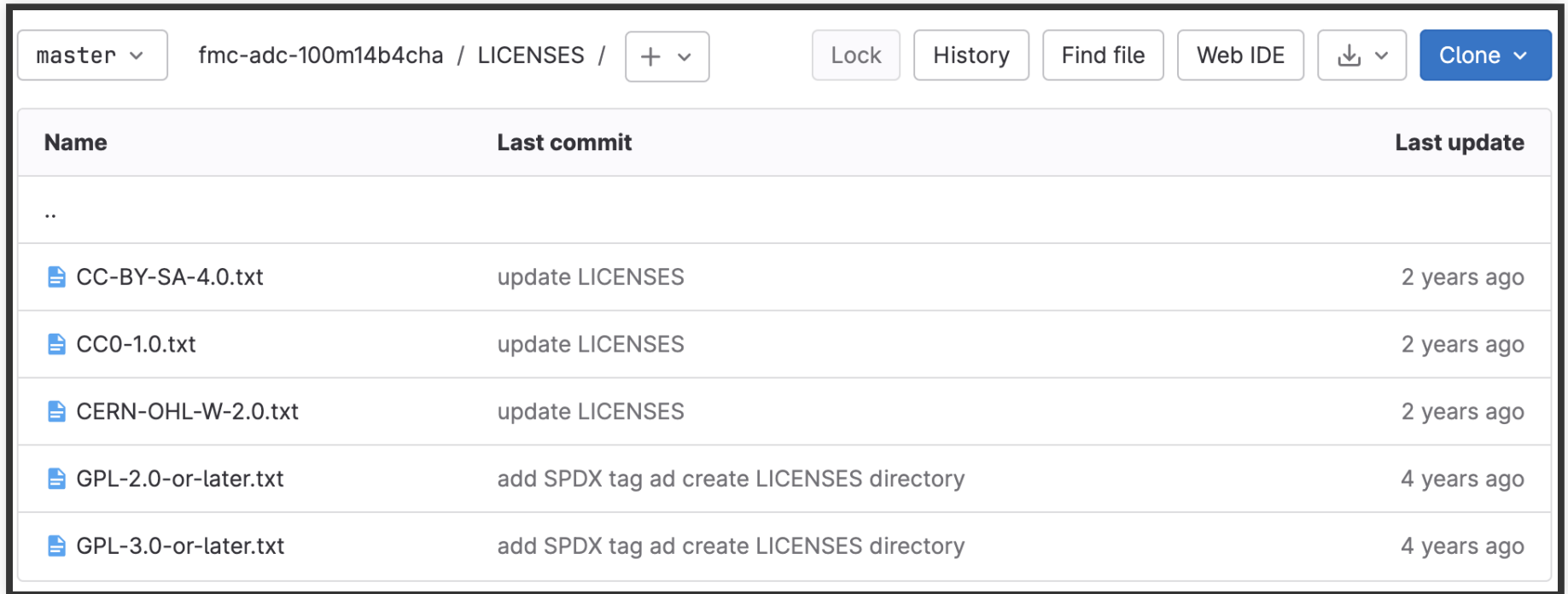
We make licensing easy for humans and machines alike. We solve a fundamental issue that Free Software licensing has at the very source: what license is a file licensed under, and who owns the copyright? **Adopting our recommendations is as easy as one-two-three!**








REUSE
SOFTWARE

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

REUSE: provide licenses



The screenshot shows a web interface for a Git repository. At the top, there is a breadcrumb path: "master" (with a dropdown arrow), "fmc-adc-100m14b4cha / LICENSES /", and a "+" button with a dropdown arrow. To the right are buttons for "Lock", "History", "Find file", "Web IDE", a download icon with a dropdown arrow, and a blue "Clone" button with a dropdown arrow.

Name	Last commit	Last update
..		
 CC-BY-SA-4.0.txt	update LICENSES	2 years ago
 CC0-1.0.txt	update LICENSES	2 years ago
 CERN-OHL-W-2.0.txt	update LICENSES	2 years ago
 GPL-2.0-or-later.txt	add SPDX tag ad create LICENSES directory	4 years ago
 GPL-3.0-or-later.txt	add SPDX tag ad create LICENSES directory	4 years ago

REUSE: add © and license

In each file:

```
$ head pytest/regressions/test_reprogramming.py
"""
SPDX-License-Identifier: GPL-3.0-or-later
SPDX-FileCopyrightText: 2022 CERN
"""
import json
```

SPDX: [Software Package Data Exchange](https://spdx.org/)

REUSE: confirm compliance

```
$ pipx run reuse lint
# SUMMARY

* Bad licenses:
* Deprecated licenses:
* Licenses without file extension:
* Missing licenses:
* Unused licenses:
* Used licenses: CC-BY-SA-4.0, CC0-1.0, CERN-OHL-W-2.0+, GPL-2.0-or-later, GPL-
* Read errors: 0
* Files with copyright information: 182 / 182
* Files with license information: 182 / 182

Congratulations! Your project is compliant with version 3.0 of the REUSE Specif
```

A nice example

<https://gitlab.cern.ch/allpix-squared/allpix-squared>

Try it out!

- <https://reuse.software/tutorial/>
- Discuss on it-dep/FOSS at CERN Mattermost
- <https://indico.cern.ch/e/opensource-2023>