This is a document originally created by The Commons Conservancy in 2017 and released under CC-0 licensing. This version is the official OpenChain Project version and is intended to provide reference examples of including license information in source code.

Introduction

Including license information into your source code is important, in a number of ways. There have been great advances in this area in the last couple of years. It used to lack uniformity, but things are becoming more and more structured, reliable and convenient.

While certainly there is some work involved, it does make a lot of sense if you want your software to be picked up and used by many. You may need to get used to it once, but then the modern way of working makes things *a lot* less ambiguous and thus simpler.

Actually, if you think about how companies have to deal with thousands upon thousands of applications, all with their own licenses - and that some companies have to employ lawyers to make sure that they comply with all the license conditions - you may appreciate the fact that doing this work one time upstream is better for everyone.

Actually it is just a few simple steps. In most cases you should be done in ten minutes, with the knowledge that you've just saved all of your future users time. In this how-to we take you throough these steps. If something is unclear, let us know!

We will go through each of these steps one by one.

Add the license to individual source files

Step one is adding the license to the individual source files (all of them).

The preferred (and shortest) option is to include a SPDX license identifier near the top of every file (after a short description of the title of the project and its function):

```
# Copyright: 2017, The Commons Conservancy eduVPN Programme
# SPDX-License-Identifier: GPL-3.0+
```

SPDX is a simple unified format for licenses that is short and machine-readable. The latter is *very* important for compliance management, the first is of course great for keeping the amount of cruft low.

Note that you use // , {- , <-- --> or whatever instead of hashes for comments, depending on your programming language.

Feel free to use whatever conventions you know for making comments more readable, although we advise to keep the copyright statement on one line and the license identifier on one line as well if you can.

```
/**
 * eduVPN - End-user friendly VPN
 *
 * Copyright: 2017, The Commons Conservancy eduVPN Programme
 * SPDX-License-Identifier: GPL-3.0+
 *
 */
```

Do note that "2017" is actually a range: **[year file created]-[last year file modified]**. If both are the same, they SHOULD be collapsed. Next year however, it would be "2017-2018", etc.

Include the full human readable version(s) in your repository

Step two is to include the **human readable version** (for instance the full text of the GPLv3) in the top level of the project repository. Put it in a file named LICENSE.

We suggest you download the file from its canonical source, or a known source like https://opensource.org/licenses .

Obviously, otherwise, a source from which you copy the file may have reformatted, wrongly copied or even edited (parts of) the text. By taking the original license text, you avoid all of those issues. Note that in some cases, editing the license itself is actually not allowed. However, even knowing that, spare yourself and your users the energy and cost they would incur if some abberation triggers manual inspection.

In the case of the GPLv3, the location of the original license would be:

http://www.gnu.org/licenses/gpl-3.0.txt

If you have multiple licenses on the same code base, you can either (in order of preference) create a folder called LICENSE and include the canonical texts there, use a the SPDX identifier as the name suffix for the individual files (e.g. LICENSE.GPLv3Plus, LICENSE.BSD3) and put these alongside each other in the top level of your project repository, or concatenate multiple license into a single file name LICENSE.

Don't forget to add the same copyright holder information from step 1 here to the license texts too.

Create a SPDX file

Step three is to create an SPDX (text) file called LICENSE.spdx with at least something like the following content:

```
SPDXVersion: SPDX-2.1
DataLicense: CC0-1.0
PackageName: eduVPN
DataFormat: SPDXRef-1
PackageSupplier: Organization: The Commons Conservancy eduVPN Programme
PackageHomePage: https://eduvpn.org
PackageLicenseDeclared: GPL-3.0+
PackageCopyrightText: 2017, The Commons Conservancy eduVPN Programme
PackageSummary: <text>EduVPN is designed to allow users to connect
securely and encrypted to the Internet from any standard device.
               </text>
PackageComment: <text>The package includes the following libraries; see
Relationship information.
               </text>
Created: 2017-06-06T09:00:00Z
PackageDownloadLocation: git://github.com/eduVPN/reponame
PackageDownloadLocation: git+https://github.com/eduVPN/reponame.git
PackageDownloadLocation: git+ssh://github.com/eduVPN/reponame.git
Creator: Person: Jane Doe
```

Note that you'd change "github.com/eduVPN/reponame" into whatever the name of your repo is, and that PackageComment should list any stuff you get from elsewhere. If there is externally licenced code going in there, this needs to be declared.

(For most, this will be the simplest notation. You could also use RDF/XML format if you'd prefer. The syntax for both can be found here: https://spdx.org/spdx-specification-21-web-version)

For future reference, the overview of SPDX licenses is here:

https://spdx.org/licenses/

A nice tutorial is here:

https://github.com/david-a-wheeler/spdx-tutorial

(Optional) Include license info in the package description

Many programming languages have their own package management systems. Obviously, it is helpful to have the license information in the package description, if you were to create one.

This allows users to automatically find your project when they are looking for solutions with specific licenses. Each languague may have different packaging solutions, and the syntaxes may vary. Check the documentation.

See for instance:

- [PYTHON] https://packaging.python.org/tutorials/distributing-packages/
- [HASKELL] https://www.haskell.org/cabal/users-guide/developing-packages.html

- [RUST] http://doc.crates.io/manifest.html

Put it in your contributor description

New files that get added over time don't automatically get the right copyright info added. Putting your preferred method into the document in which you describe how new developers can board the project, will help them to pick up your best practises.