

# SPDX & REUSE

For better license statements



4 - 11 September 2020

# What is Copyright?

- 1 A legal construct that grants someone exclusive rights over a creative work.
- 2 Copyright is the right to “make copies” and give them away.
- 3 Per default you have copyright over your work.
- 4 Copyright can be transferred, e.g. to the KDE e.V.  
(go to Ade’s talk to see when this might be reasonable!)

More about copyrights:

<https://creativecommons.org/faq/>

#what-is-copyright-and-why-does-it-matter



4 - 11 September 2020

# What is a License?

Via copyright, your work is not reusable by anybody else – a license changes this

**License** defines under which terms your software can be reused

**Free Software License** must grant the following 4 rights:

- 1 Use
- 2 Study
- 3 Share
- 4 Improve

**Copyleft license** requires that same rights preserve in derivative works (e.g. GPL, LGPL)

**Permissive license** only minimal restrictions of 4 freedoms, but no requirements for derivative works (e.g. BSD, MIT)

# How do I grant a license?



4 - 11 September 2020

## Example (Traditional License Header – do NOT do this anymore, please)

```
/*
  This file is part of Rocs.
  Copyright 2008-2011 Tomaz Canabrava <tomaz.canabrava@gmail.com>
  Copyright 2008     Ugo Sangiori <ugorox@gmail.com>
  Copyright 2010     Wagner Reck <wagner.reck@gmail.com>
  Copyright 2014     Andreas Cord-Landwehr <cordlandwehr@kde.org>

  This program is free software; you can redistribute it and/or
  modify it under the terms of the GNU General Public License as
  published by the Free Software Foundation; either version 2 of
  the License, or (at your option) any later version.

  This program 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 General Public License for more details.

  You should have received a copy of the GNU General Public License
  along with this program.  If not, see <https://www.gnu.org/licenses/>.
*/
```



4 - 11 September 2020

# Problems with those Statements

- Long license texts are very error-prone and hard to check
- License statements are handcrafted (over 36 (!!!) different statements for LGPL-2.0-or-later in KF5)
  - Update FSF address
  - No automatic checking possible, or only with fuzzy checkers
  - Often ambiguous handcrafted statements

## Solution: **SPDX Markers**

- SPDX license list provides unique license IDs:  
<https://spdx.org/licenses/>
- Standardized set of machine-readable expressions:
  - `SPDX-FileCopyrightText: YEAR AUTHOR <CONTACT>`
  - `SPDX-License-Identifier: LICENSE-IDENTIFIER`

# REUSE – to make it simple!

- SPDX is a specification, written by legal experts:  
<https://spdx.github.io/spdx-spec/>
- <https://REUSE.software> is initiative by FSFE to make reusing easier
- Provide a simple specification that requires only tiny subset and gives guidelines how to apply it
- In a nutshell:
  - 1 Add SPDX-License-Identifier tag to every file
  - 2 Add SPDX-FileCopyrightText tag to every file
  - 3 Add license text in `LICENSES/<license>.txt` for every license
- See KDE Licensing HowTo Wiki page:  
[https://community.kde.org/Guidelines\\_and\\_HOWTOs/Licensing](https://community.kde.org/Guidelines_and_HOWTOs/Licensing)

# How do I grant a license, today?



4 - 11 September 2020

## Example (REUSE Compatible License Statement)

```
/*  
  This file is part of Rocs.  
  SPDX-FileCopyrightText: 2008-2011 Tomaz Canabrava <tomaz.canabrava@gmail.com>  
  SPDX-FileCopyrightText: 2008 Ugo Sangiori <ugorox@gmail.com>  
  SPDX-FileCopyrightText: 2010 Wagner Reck <wagner.reck@gmail.com>  
  SPDX-FileCopyrightText: 2014 Andreas Cord-Landwehr <cordlandwehr@kde.org>  
  
  SPDX-License-Identifier: GPL-2.0-or-later  
*/
```



4 - 11 September 2020

## Why does it matter?

- Not every license is compatible with every other license :-/  
→ application/library **cannot** be shipped to users if conflicting
- We have a policy that strives for compatible licenses:  
[https://community.kde.org/Policies/Licensing\\_Policy](https://community.kde.org/Policies/Licensing_Policy)  
Applications: GPL  
Libraries: LGPL  
Build System: BSD  
Resources: CC  
Documentation: CC (used to be FDL)
- For GPL/LGPL licenses devil lies in the version number details





4 - 11 September 2020

# A Glimpse of Better Tooling

Still quite tedious work to check if we do something legally right, but now...

- Get the REUSE tool: `pip install reuse`  
→ tells you if you are fully REUSE compliant
- License compatibility test generator soon in extra-cmake-modules:  
→ [https://invent.kde.org/frameworks/extra-cmake-modules/-/merge\\_requests/21](https://invent.kde.org/frameworks/extra-cmake-modules/-/merge_requests/21)

## Example (Check source compatibility with outbound license)

```
include(ECMCheckOutboundLicense)

file(GLOB TEST_FILES "*.cpp" "*.h")
ecm_check_outbound_license(
  LICENSES LGPL-2.1-only LGPL-3.0-only
  TEST_NAME mylibrary
  FILES ${TEST_FILES}
)
```

# The End



4 - 11 September 2020

## Convert your project!

- KDE Frameworks is done! (~7500 files)
- KDE PIM is done, too!
- ... and your project next?

Easy Steps to Follow

**KDE License HowTo** [https://community.kde.org/Guidelines\\_and\\_HOWTOs/Licensing](https://community.kde.org/Guidelines_and_HOWTOs/Licensing)

**Licensedigger** KDE conversion tooling: <https://invent.kde.org/sdk/licensedigger>

**Support** irc: CoLa, mail: [cordlandwehr@kde.org](mailto:cordlandwehr@kde.org)