



HSF Licensing Meeting Introduction

Graeme Stewart, for HSF coordination

2018-05-09

Goals

- Experiments build on top of large stacks of software, both from the HEP community and outside
 - 100s of packages form the dependencies of the experiment software itself
- We want to ensure this software can be built and released as part of the open source world
 - Respecting the constraints of all of the components and the wishes of the experiment stakeholders
 - Aim to have as many people use it as possible, *including possible industrial collaborations*
- We should advise developers and experiments on the best license choices to achieve the above goals
 - This is beneficial to the HEP community, which has long neglected these issues of copyright and licensing
 - We often took advantage of outside open source projects, but did not reciprocate

Reminder on Copyright and Licenses

- Software needs to be owned
 - The owner is the copyright holder
- Software should then get a license
 - Without one it is implicitly 'All Rights Reserved' to the copyright holders
 - Copyright holders can both determine the license and relicense as they want (needs unanimity)
 - An open source license is one that grants additional rights to users
- Software packages usually rely on other code for their functionality
 - Almost all of our software is of this type
 - Their license has to be consistent with the license of code that it uses

Note that citations are *independent* of any license applied - HSF strongly encourages proper citation of all software packages used

License Compatibility

- Not all licenses are compatible with one another
 - GPLv2 and Apache 2 are incompatible
 - GPLv3 and (L)GPLv2 are incompatible
- Copyleft licenses impose their license terms on their clients
 - Use GPL code you have to also be GPL
 - This is disliked by some of our funding agencies and strongly disliked by some external partners

See summary table in backup

Experiment Viewpoint

- CMS decided some time ago to license CMSSW open source
 - Apache 2 is the favoured license
- ALICE also have open sourced
 - They have applied a BSD-3 clause license to their software
- ATLAS and LHCb both made significant progress on copyright and licensing
 - We have presentations from both on their status
- Belle II have a licensing task force
 - We shall hear from them too and discuss open points

Recent Software Package Changes

- HepMC and HepMCv3
 - Have assigned copyright to CERN
 - Adopted the LGPL license instead of GPL
- AIDA2020 Projects (AidaTT, PODIO, DD4hep, DD*)
 - Copyright held by authors
 - AIDA2020, like the experiments, can't hold (C)
 - Now seeking agreement to move from GPL to LGPL
- CERN Invenio and Indico
 - Are changing from GPLv3 to MIT
 - See very interesting [discussion on GitHub for Invenio](#) (ditto for [Indico](#))
- FastJet
 - Changed from GPLv2 to GPLv2 or later
 - Helps compatibility with (L)GPLv3 and Apache 2, but obliges stack to be GPL as well

Next Steps

- Please sign up to the dedicated list for copyright and licensing discussion
 - hsf-licensing-wg@googlegroups.com
- We would like to track issues more regularly
 - So expect further meetings
- Most important topics?
 - That's for us to decide on today

Backup

License Compatibility Matrix

Compatibility of license X, when using software under license Y									
X	Public Domain	MIT/X11/Boost	BSD	Apache 2	Mozilla 2	LGPL 2.1	LGPL 3	GPLv2	GPLv3
Public Domain	No change	No change	No change	No change	No change	No change	No change	Change	Change
MIT/X11/Boost	No change	No change	No change	No change	No change	No change	No change	Change	Change
BSD	No change	No change	No change	No change	No change	No change	No change	Change	Change
Apache 2	No change	No change	No change	No change	No change	Not possible**	No change	Not possible**	Change
Mozilla 2	No change	No change	No change	No change	No change	No change	No change	Change*	Change*
LGPL 2.1	No change	No change	No change	Not possible**	No change	No change	No change	Change	Not possible**
LGPL 3	No change	No change	No change	No change	No change	No change	No change	Not possible**	Change
GPLv2	No change	No change	No change	Not possible**	No change*	No change	Not possible**	No change	Not possible**
GPLv3	No change	No change	No change	No change	No change*	No change	No change	Not possible**	No change

Note that the GPLv2+ license can be taken as GPLv2 or GPLv3, but not both

* In this special case the code must be dual licensed and the MPL2 code must allow for that

** Incompatible due to patent handling clauses