

Logiciel Libre — TD 3*

Licenses I

2020–2021

1 Analyse de licences

Exercice 1.1 (Licenses non DFSG-free).

PH9.¹ At <https://upsilon.cc/~zack/stuff/bad.licenses.tar.bz2> you can find a tarball of bad licenses. Please compare the [...] licenses with the first nine points of the DFSG² and show a few examples of where they do not comply with the DFSG. [...]

Note: graphviz and gmail have now changed licenses in favour of [DFSG-]free ones.

Exercice 1.2 (Analyse de la licence GPLv2). *Récupérez une copie de la licence GPLv2*

1. identifiez précisément dans la licence GPL les 4 droits fondamentaux du logiciel libre
2. la licence autorise-t-il la vente d'un logiciel sous licence GPL?
3. donnez au moins un exemple de logiciel auquel s'applique la clause du deuxième paragraphe de la section 0 de la licence
4. si j'écris un logiciel en utilisant un outil de génie logiciel, qui produit des millions de lignes de code C++ automatiquement, puis-je diffuser seulement le code C++ engendré, sous licence GPL? Si non, pourquoi?
5. résumez dans un tableau la portée de chacune des sections qui composent la GPL

Motivez vos réponses.

Exercice 1.3 (Analyse de la licence LGPLv2.1). *Récupérez une copie de la licence LGPLv2.1*

1. identifiez les différences par rapport à la licence GPLv2
2. peut-on appliquer la licence LGPL à autre chose qu'une librairie?
3. peut-on combiner du code sous licence GPL avec du code sous licence LGPL?

Motivez vos réponses.

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¹Tiré du Debian New Member process, Step 3: Philosophy & Procedures

²https://www.debian.org/social_contract#guidelines

Logiciel Libre — TD 4*

Licenses II

2020–2021

1 FSF's Free Software licensing quiz

Exercise 1.1. Joan writes a web browser and releases the source code under the GPL on her web site. Fred gives a CD with binaries of Joan's browser to his friend for her birthday. Which of the following does not satisfy Fred's obligation to make source code available:

1. He can put the source code on his web site, and put the URL on the CD.
2. He can give out source on the same CD as the binaries.
3. He can make a written offer to give out the source code on CD for a fee that covers his distribution costs.

Exercise 1.2. Now Fred makes modifications to Joan's web browser, and distributes binaries on his web site. Which of the following fulfill Fred's obligation to distribute the source code of the modified browser?

- I. He can distribute Joan's original source code verbatim, retaining all copyright notices.
- II. He can distribute the modified source code alongside the binaries.
- III. He can distribute only trivially-applied patches against the original source.
- IV. He can distribute trivially-applied patches against Joan's original source, along with the original source code.

Possible answers are:

1. I or II, and nothing else.
2. II, and nothing else.
3. II or IV, but nothing else
4. Any or all of I, II, III, or IV

Exercise 1.3. Fred wishes to distribute Joan's browser linked to a third-party module. The third party module has the following license:

This code may be freely modified, copied and distributed, so long as no fee is charged for it.

Would this violate the GPL?

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1. Yes, because the GPL requires that code linked against GPL-licensed code be licensed under the GPL.
2. Yes, because the GPL does not allow additional restrictions to be applied to any part of the code.
3. No, because the new code is linked to Joan's code, rather than copied into Joan's code.
4. No, because the resulting work can still be distributed for free.
5. No, because the GPL already prohibits charging a fee for distribution.

Exercise 1.4. Peter creates a library called LibIdo licensed under the Lesser General Public License. FooCorp distributes a modified version of the LibIdo library linked to their proprietary program Frobber. Which of the following is not an obligation of FooCorp?

1. FooCorp must provide a mechanism for Frobber to be linked against new versions of LibIdo.
2. FooCorp must make available the complete source code to their modified version of LibIdo.
3. FooCorp must note all their modifications to LibIdo.
4. FooCorp must make available the complete source code to Frobber.

Exercise 1.5. Joan wants to distribute copies of her browser statically linked to Postfix (a mail server), which is released under the IBM Public License, a GPL-incompatible Free Software license. Other than Postfix, the browser includes only code on which Joan holds the copyright. Should she grant an exception to the GPL for this?

1. No, because static linking does not create a derivative work
2. No, because the GPL already allows linking to other software, so long as that software is Free Software.
3. Yes – the following exception is OK:

In addition, as a special exception, Joan Smith gives permission to link the code of this program with Postfix (or with modified versions of Postfix that use the same license as Postfix), and distribute linked combinations including the two. You must obey the GNU General Public License in all respects for all of the code used other than Postfix. If you modify this file, you may extend this exception to your version of the file, but you are not obligated to do so. If you do not wish to do so, delete this exception statement from your version.

4. Yes – the following exception is OK:

In addition, as a special exception, Joan Smith gives permission to link the code of this program with any proprietary library and distribute linked combinations including these libraries. You must obey the GNU General Public License in all respects for all of the code used other than these libraries. If you modify this file, you may extend this exception to your version of the file, but you are not obligated to do so. If you do not wish to do so, delete this exception statement from your version.

Exercise 1.6. FooCorp sells binaries of Joan's GPL'd web browser on CD without source code. They include an offer to provide source code. Which of the following offers fulfills their obligations under the GPL?

- I. "You can download the source code from our web site at <http://foocorp.example.com/download.html>"

- II. “Everyone who buys a binary CD may order up to one source CD per binary CD for \$5000.”
- III. “Everyone may order a source CD for \$5000.”
- IV. “Everyone who buys a binary CD may order up to one source CD per binary CD for the cost of distribution.”
- V. “Everyone may order a source CD for the cost of distribution.”
- VI. “Everyone who buys a binary CD may order up to one source CD for free.”
- VII. “Everyone may order a source CD for free.”

Possible answers are:

- 1. Any of I-VII are OK.
- 2. Any of II-VII are OK, but I is not OK.
- 3. Any of IV-VII are OK, but I-III are not OK.
- 4. Any of III, V, and VII are OK, but I, II, IV, VI are not OK.
- 5. V and VII are OK, none of the others are.
- 6. None of I-VII are OK.

Exercise 1.7. Patty creates a library, and releases it under the GPL. Many people make improvements to this library, and submit them back to Patty, who incorporates them into newer versions of the library. Now Patty wants to make a proprietary version of this library. She makes two claims:

- I. Because the original version was under the GPL, everyone who made improvements automatically assigned copyright on those improvements to Patty, so she doesn’t need to ask permission before relicensing.
- II. Because she is the copyright holder, she can relicense the code retroactively, so nobody can distribute old versions under the GPL anymore.

Are these claims true?

- 1. Both claims are true.
- 2. I is true but II is false
- 3. II is true but I is false
- 4. Both claims are false.

Exercise 1.8. FooCorp distributes Frobber linked against an unmodified version of LibIdo. Does the LGPL require FooCorp to allow users to reverse engineer Frobber for their own use?

- 1. Yes.
- 2. No.

Exercise 1.9. Now FooCorp modifies Joan’s browser to include a technology they have patented. They distribute this modified browser on CD. Are there any requirements in the GPL on how they may license their applicable patent?

- 1. No.
- 2. Yes, they must allow everyone to practice the patented technology for any purpose.
- 3. Yes, they must allow everyone who uses any code from the browser to practice their patented technology.

—— You can verify your answers at <https://www.gnu.org/cgi-bin/license-quiz.cgi>

Logiciel Libre — TD 5*

Licenses III

2020–2021

1 Case study: Hellwig v. VMware

On March 5th, 2015, Software Freedom Conservancy (SFC)¹ has announced the lawsuit of Christoph Hellwig, a Linux kernel developer, against VMware² for alleged violation of the terms of the GNU General Public License version 2 (GPLv2) by VMware ESXi products.

Exercise 1.1 (Context). Research information about the lawsuit in question, starting (but not limiting to) the references given in Section 2. Try to clarify the following aspects:

- a) who are the plaintiffs and the defendants?
- b) what is the role of SFC in this matter?
- c) what are the involved software products?
- d) where is the lawsuit going to take place? why there?
- e) since when the involved products have, allegedly, being in violation? why is the lawsuit happening now?

Exercise 1.2 (Business model). Learn more about VMware, in particular find out:

- a) what is VMware?
- b) where is VMware based?
- c) what is the business model of VMware?
- d) how much is the annual revenue of VMware in recent years?
- e) what is VMware approach to software licensing? (do they release *all* their products under Free licenses? none of them? some of them?)

Exercise 1.3 (Software architecture). Try to determine the software architecture of the software components that are relevant to this lawsuit, focusing on the following questions:

- a) what is ESXi and what it does?
- b) based on available public documentation, draw a diagram of ESXi software architecture and identify native components (implemented by VMware and shipped with ESXi) and potential 3rd party components (implemented by others, possibly added directly by final users)

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¹<http://sfconservancy.org/>

²<http://www.vmware.com/>

- c) for each *connection* among components, determine the used communication API over that connection
- d) for each ESXi component, determine how and when the component is loaded/initialized
- e) comment the quality and extensibility of ESXi architecture

Exercise 1.4 (Software licensing). For each software component of ESXi architecture, native or 3rd party, find out the relevant software licenses and point to their terms (if publicly available).

Exercise 1.5 (Lawsuit). Let's now investigate the lawsuit:

- a) try to summarize what the lawsuit is about: in the opinion of the plaintiff, which license terms, of which software license, pertaining to which copyrighted lines of code, have been violated by VMware?
- b) play the role of the plaintiff: write a convincing argument in favor of your case, that will convince the judge(s) that you are right. Which remedy would you ask VMware?
- c) play the role of the defendant: write a convincing argument against requests of the plaintiff, convincing the judge that no license terms have been violated.
- d) discuss the relevance of this lawsuit. Depending on its outcome, will we learn something new about how specific actions, related to popular Free Software licenses, are allowed *in general*, or will we just settle yet another law dispute in IT?

2 References

- SFC lawsuit announcement <http://sfconservancy.org/news/2015/mar/05/vmware-lawsuit/>
- VMware public response <http://www.vmware.com/company/news/vmware-update-to-mr-hellwigs-legal-proceedings>
- SFC lawsuit FAQ <http://sfconservancy.org/linux-compliance/vmware-lawsuit-faq.html>
- some commentaries
 - Aaron Williamson <https://torekeland.com/blog/new-lawsuit-targets-proprietary-linux-shims>
 - Ian Wienand <https://www.technovelty.org/linux/on-vmware-and-gpl.html>
 - Jonathan Corbet (LWN.net) <http://lwn.net/SubscriberLink/635290/b2919700c9cb0a27/>
 - Simon Phipps <https://torekeland.com/blog/new-lawsuit-targets-proprietary-linux-shims>