Version 0.88.1

***A Practical Guide for Developers, Managers, OS Experts, and Companies***

# Open Source License Compendium

## How to Achieve Open Source License Compliance*

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*The Open Source Community is a swarm: it is more powerful than a set of arbritarily selected experts. We are proud to have its support. Gladly we thank (in alphabetical order):*

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Thomas Quiehl,
Peter Schichl,
Helene Tamer,
Bernhard Tsai,
and all the others...

# Contents

Table 0.1: History of the Open Source License Compendium

| | | |
|---|---|---|
| 2013-03-07 | 0.90.1 | CeBIT release<br>▷ to-do lists for the most importsant licenses added<br>▷ branches merged and new master published |
| 2013-02-16 | 0.8.90 | CeBIT pre release<br>▷ new arguing structure focused on the topic license fulfillment<br>▷ new classifying license review<br>▷ new top down introduction |
| 2012-12-28 | 0.8.0 | inmternal EOY release<br>▷ many distributed improvents unified in branch kreinck |
| 2012-08-25 | 0.5.2 | expanded break through release<br>▷ MIT license fulfilling to-do lists<br>▷ using integrated Eclipse spell checking methods |
| 2012-07-06 | 0.4.0 | break through release<br>▷ open source use case definition and taxonomy<br>▷ open source use case based general finder<br>▷ corresponding BSD specific mini finder<br>▷ BSD license fulfilling to-do lists |
| 2012-03-22 | 0.2.1 | ▷ framework published as first community edition |
| 2012-01-31 | 0.1.8 | ▷ renamed existing introduction as prolegomena<br>▷ inserted a shorter top-down written introduction<br>▷ inserted an OSLiC disclaimer |
| 2012-01-21 | 0.1.7 | ▷ oscCopiedButNotRead.bib expanded<br>▷ list of periodicals and shortcuts added |
| 2011-12-29 | 0.1.6 | ▷ many bibliographic data added |
| 2011-10-17 | 0.1.5 | ▷ bibliographic data updated |
| 2011-09-29 | 0.1.4 | ▷ document history integrated<br>▷ typos erased |
| 2011-09-28 | 0.1.3 | ▷ review of english teacher integrated |
| 2011-09-19 | 0.1.2 | ▷ first comments of english teacher integrated |
| 2011-09-15 | 0.1.1 | ▷ improvements of John integrated |
| 2011-09-12 | 0.1.0 | ▷ introduction completed: purpose and methods |

# Disclaimer

This book shall be thoroughly developed – together with the open source community. Finally, it shall deliver reliable information with respect to the rule that the swarm knows more than the single fish.

But nevertheless the OSLiC can not offer more than the opinion(s) of its authors and contributors. It is only one voice of chorus discussing the topic of open source licenses. For protecting the authors and contributors from charges and claims of idemnification we adopt the lightly modified GPL3 disclaimer:

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*Particularily, the authors of the OSLiC want to highlight that - referred to your solitary case - the OSLiC can not replace a legal review or a legal advice by lawyers. It may inspire developers, managers, open source experts, and companies to find good solutions which they finally should let review by legal counselors*[1].

[1)] For German readers: The OSLiC naturally respects the German 'Rechtsdienstleistungsgesetz': it only contains legal reflections addressed to a general public. Its content may only be read as 'nur an die Allgemeinheit gerichtete Darstellung und Erörterung von Rechtsfragen'.

# 1 Introduction

*This chapter briefly describes the idea behind the OSLiC, the way it should be used and the way it can be read – which is indeed not quite the same.*

This book focuses on just one issue: *What needs to be done in order to act in accordance with the licenses of those* open source software *we use?* The *Open Source License Compendium* aims at reliably answering this question – in a simple and easy to understand manner. However, it is not just another book on *open source* in general[2]. The intention is, rather, for it to be a tool for simplifying the activities for achieving license conformity.

This compendium was created out of a necessity at *Deutsche Telekom AG* and a challenge for some of its software developers and project managers: Of course, the company itself wants to behave as license compliantly as its employees. Unfortunately, they could not find a reference text which simply lists what precisely must be done in order to comply with the license of that piece of open source being used.

As some of these co-workers in Telekom projects, even we – the initial authors of the OSLiC – did not want to become open source license experts only for being able to use open source software in accordance with the respective licenses. We did not want to become lawyers. We just wanted to do more efficiently, what in those days claimed much time and many resources. We were searching for clear guidance instead of having to determine a correct way through the jungle of open source licenses – over and over again, project for project. We loved using the high-quality open source software to improve our performance. We liked using

[2] Meanwhile, there are tons of literature dealing with open source. By expanding your knowledge by means of books and articles you might get lost in literature: our list of secondary literature may adumbrate this 'danger of being overwhelmed'. But nevertheless, our bibliography at the end of the OSLiC is not complete. Moreover, it is not intended to be complete. It is only an extract representing the background information we did not directly cite in the OSLiC. If we were forced to indicate two books for attaining a good overview on the topic of *open source (licenses)* we would name (a) the 'Rebel Code' (for a German version cf. *Moody, Glyn*: Die Software-Rebellen. Die Erfolgsstory von Linus Torvalds und Linux; transl. from the American [edition, 2000] by Annemarie Pumpering; Landsberg am Lech: verlag moderne industrie, 2001, ISBN 3–478–38730–2, passim – for an English version cf. *Moody, Glyn*: Rebel Code: Linux And The Open Source Revolution; [New York]: Basic Books, 2002, ISBN ISBN 978–0738206707, p. passim) and (b) the 'legal basic conditions' (cf. *Jaeger, Till* a. *Axel Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software; 3rd edition. München: Verlag C.H. Beck, 2011, passim). But fortunately, we are not forced to do so.

it legally. But we did not like to laboriously discuss the legal constraints of the many and different open source licenses.

What we needed, was an easy-to-use handout which would lead us without any detours to executable lists of work items. We wished to obtain to-do lists, tailored to our usecases and our licenses. We needed reliable lists of tasks we only had to execute for being sure that we were acting in accordance with the open source license. When we started out, such a compendium did not exist.

For solving this problem our company took three decisions:

The first decision our company arrived at, was to support a small group of employees to act as *a board of open source license experts*: They should offer a service for the whole company. Projects, managers, and developers should be able to ask this board what they have to do for complying with a specific open Source License under specific circumstances. And this board should answer with authoritative to-do lists whose executions would assure that the requestors are acting according to the corresponding open source licenses. The idea behind this decision was simple. It would save cost and increase quality if one had one central group of experts instead of being obliged to select (and to train) developers – over and over again, for every new project. So, the *OSRB* – the *Telekom Open Source Review Board* – was founded as an internal expert group – as a self-organizing, bottom-up driven community.

The second decision our company took, was to allow this *Telekom OSRB* to collect their results systematically. The idea behind this decision was also simple: The more the internal service becomes known, the more the workload will increase: the more work, the more recources, the more costs. So, the idea was to save costs and enable the requestors to find answers by themselves without becoming license experts – but simply without becoming licenses experts: For all default cases, they should find an answer in the compendium instead of having to request that their work be analyzed by the OSRB. Thus, the planned *Telekom Open Source License Compendium* prevents Telekom from having to increase the number of OSRB members in the future.

The third decision our company reached, was to allow the *Telekom OSRB* to create the compendium in the same mode of cooperation, open source projects usually use. Again, a simple reason evoked this ruling: If in the future – as a rule – not a reviewing OSRB, but a simple manual should assure the open source license compliant behavior of projects, programmers and managers, this book had of course to be particularily reliable. There is a known feature of the open source working model: the ongoing review by the cooperating community increases the quality. Therefore, the decision, not only to write an internal 'Telekom handout', but to enable the whole community to use, to modify and to redistribute a broader *Open Source License Compendium*, was a decision for improving quality. Consequently, the *OSRB* decided to publish the *OSLiC* as a set of LaTex

sources, publicly available via the open repository github[3]. And it licensed the OSLiC under Creative Commons Attribution-ShareAlike 3.0 Germany License[4].

But to publish the *OSLiC* as a free book has another important connotation – at least for the *Telekom OSRB*: It is also intended to be an appreciative *giving back* to the *open source community* which has enriched and simplified the life of so many employees and companies over so many years.

Altogether, the OSLiC follows five principles:

**To-do lists as the core, discussions around them** : Based on simple gathering of information concerning the concrete use of a piece of open source software and its license, the OSLiC shall offer an easy-to-use finder taking the requestor to the respecvtive to-do list for ensuring license conformity. In addition, all these elements of the OSLiC should comprehensibly be introduced and discussed without disturbing the usage itself.

**Quotations with thoroughly specified sources** : The OSLiC shall be revisable and reliable. It shall comprehensibly argue and explictly specify why it adopts which information from whom in which version and why[5].

**No clearing the forest, but cutting a swath** : The OSLiC has to deal with li-

[3] Get the code by using the link `https://github.com/dtag-dbu/oslic`; get project information by `http://dtag-dbu.github.com/oslic/` or by `http://www.oslic.org/`.

[4] This text is licensed under the Creative Commons Attribution-ShareAlike 3.0 Germany License (`http://creativecommons.org/licenses/by-sa/3.0/de/`): Feel free 'to share (to copy, distribute and transmit)' or 'to remix (to adapt)' it, if you '[...] distribute the resulting work under the same or similar license to this one' and if you respect how 'you must attribute the work in the manner specified by the author(s) [...]'): In an internet based reuse please mention the initial authors in a suitable manner, name their sponsor *Deutsche Telekom AG* and link it to `http://www.telekom.com`. In a paper-like reuse please insert a short hint to `http://www.telekom.com`, to the initial authors, and to their sponsor *Deutsche Telekom AG* into your preface. For normal citations please use the scientific standard.

[5] For that purpose, we are using an 'old-fashioned' bibliographic style with footnotes, instead of endnotes or inline-hints. We want to enable the users to review or to ignore our comments and hints just as they prefer – but on all accounts without being disturbed by large inline comments or frequent page turnings. We know that modern writer guides prefer less 'noisy' styles (pars pro toto cf. *MLA*: MLA Handbook for Writers of Research Papers; 7th edition. New York: The Modern Language Association of America, 2009, ISBN 978–1–60329–024–1, passim). But for a reliable usage – challenged by the often modified internet sources – these methods are still a little imprecise (for details → OSLiC 'sec:QuotationAppendix', pp. 93. For a short motivation of the style used in the OSLiC cf. *Reincke, Karsten*: Classical Scholar Texts With Footnotes based on LaTeX, BibTeX, Koma, jurabib and mykeds-CSR; 2012 ⟨URL: `http://www.fodina.de/en/closedprojects/latex-addons/classical-scholar.html`⟩ – reference download: 2013-02-10, passim. For a more elaborated legitimizing version cf. *Reincke, Karsten*: (Geistes-) Wissenschaftliche Texte mit jurabib. Dienst am Leser, Dienst am Scholaren: Uber Anmerkungsapparate in Fußnoten - aber richtig. [n.l.], 2012 ⟨URL: `http://download.fodina.de/fodinaClassicalScholarFoNoDe.pdf`⟩ – reference download: 2013-02-10, passim)

censes and their legal aspects, no doubt. But it shall not discuss all details of every aspect. It shall focus on one possible way to act according to a license in a specific usecase – even it is known that there might be alternatives[6].

**Take the license text seriously** : The OSLiC shall not give general lectures on legal discussions, much less shall it participate in them. It shall only find one dependable way for each license and each usecase to comply with the license. The main source for this analysis shall be the exact reading of the open source licenses themselves – based on and supported by the interpretation of benevolent lawyers and rational argueing software developers. The OSLiC shall respect that open source licenses are written for software developers (and sometimes by developers).

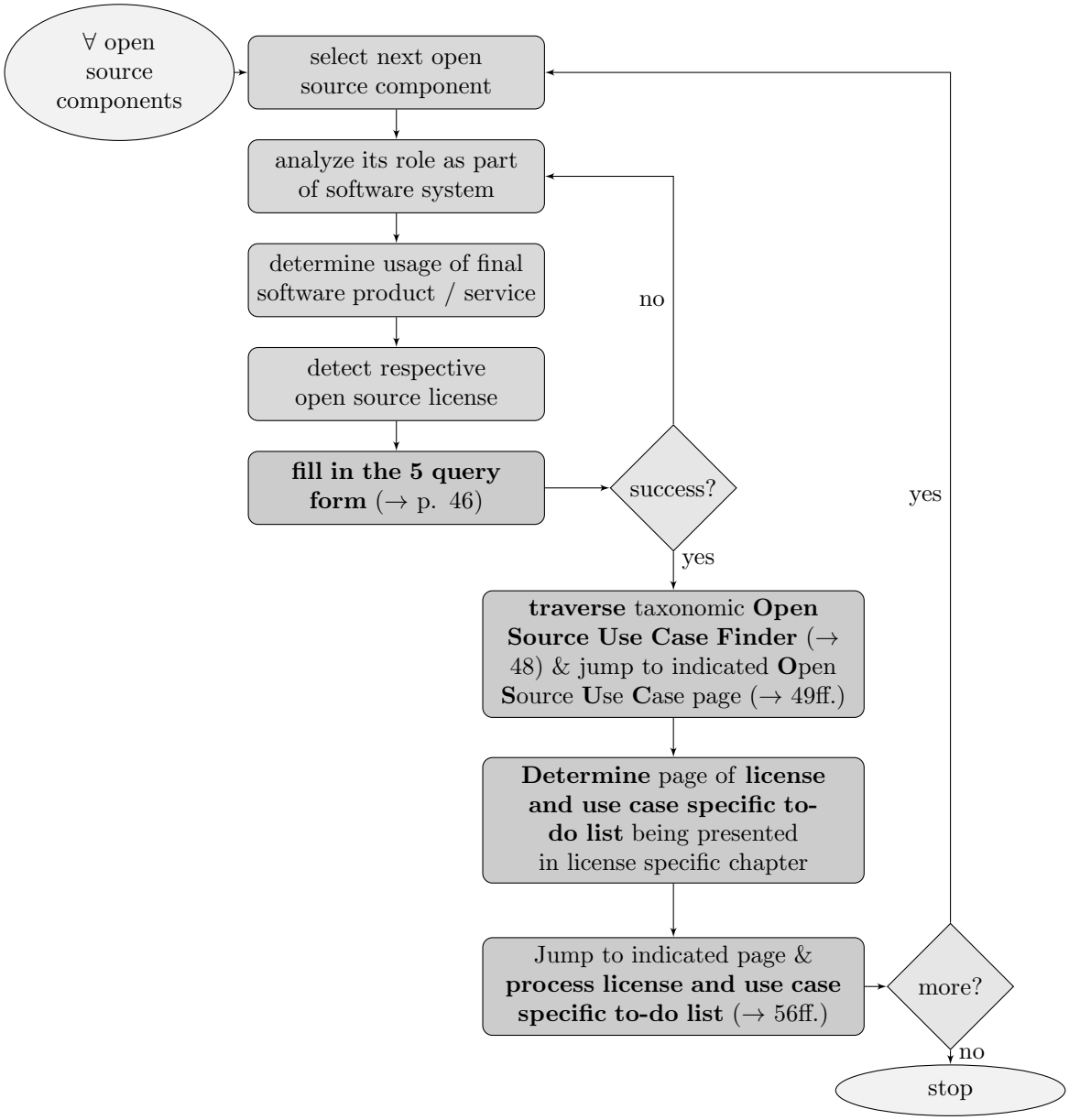
**Trust the swarm** : The OSLiC shall be open for improvements and adjustments encouraged an stimulated also by other people than employees of *Deutsche Telekom AG*.

Based on these principles the OSLiC offers two modes for being used:

First and foremost the readers expect to simply and quickly find those to-do lists fitting their needs. Here is the respective process[7]:

[6] The OSLiC shall not counsel projects with respect to their specific needs. This must remain the task for lawyers and legal experts. The OSLiC can not replace a legal review or a legal advice by lawyers. It shall inspire developers, managers, open source experts, and companies to find good solutions which they finally should let review by legal counselors. For the German readers let us repeat again: The OSLiC naturally respects the German 'Rechtsdienstleistungsgesetz'. It only contains legal reflections addressed to a general public. Its content may only be read as 'nur an die Allgemeinheit gerichtete Darstellung und Erörterung von Rechtsfragen'.

[7] For the well known 'quick and dirty hackers' – as we tend to be, too – we have integrated a shortcut: If you already know the license of the open source package you want to use and if you are very familiar with the meaning of the open source use cases we defined, then you might directly jump to the corresponding license specific chapter, without 'struggling' with *OSLiC 5 query form* (→ OSLiC p. 46), the taxonomic *Open Source Use Case Finder* (→ 48) or the *O*pen *S*ource *U*se *C*ase page (→ 49ff.): Some of the chapters dedicated to specific open source licenses starts with a license specific finder offering a set of license specific use cases – which according to the complexity of the license – in some cases could be stripped down. But the disadvantage of this method is that you have to apply your knowledge about the use cases and their side effects by yourself without the systematically guiding OSLiC process.




Second, the readers might wish to comprehend the whole analysis. So, we shortly discuss open source licenses taxonomies as the basis for a license compliant behavior[8]. We consider some side effects with regard to act according to the open source licenses[9]. Finally, we study the structure of open source use cases[10].

So, let us close our introduction by using, modifying, and (re)distributing a well known wish of a well known man: Happy (Legally) Hacking.

[8] → OSLIC 'Open Source: The Same Idea, Different Licenses', pp. 13
[9] → OSLiC 'Open Source: About Some Side Effects', pp. 33
[10] → OSLiC 'Open Source Use Cases: Concept and Taxonomy', pp. 40

# 2 Open Source: The Same Idea, Different Licenses

*This chapter describes different license models which meet the common idea of free open source software. We want to discuss existing ways of grouping licenses to underline the limits of building such clusters: These groups are often used as 'virtual prototypic licenses' which shall deliver a simplified view onto the conditions how to act according to the referred real license instances. But one has to fulfill the requirements of a specific license, not one's own generalized idea of a set of licenses. Nevertheless, also we wish to take a new structuring look at the world of the open source licenses. We will use a new set of grouping criteria by referring to the common intended purpose of licenses: each license wants to protect something or someone against something or someone. Following this pattern, we can indeed summarize all open source licenses in a comparable way.*

Grouping open source licenses is done often. Even the set of the *open source licenses*[11] itself is already a cluster being established by a set of grouping criteria: The 'distribution terms' of each software license that wants to be an open source license, '[...] must comply with the [...] criteria' of the *Open Source Definition*[12], maintained by the *Open Source Initiative*[13] and often abbreviated as *OSD*. So, this *OSD* demarcates 'the group of [potential] open source licenses' against 'the group of not open sources licenses'[14].

Another way to cluster the *Free Software Licenses* is specified by the 'Free Software Definition'. This *FSD* contains four conditions which must be met by any free software license: any FSD compliant license must asign the 'the freedom to run a program, for any purpose [...]', 'the freedom to study how it works, and adapt it to (one's) needs [...]', 'the freedom to redistribute copies [...]', and finally 'the freedom to improve the program, and release your improvements [...]'[15]. Surprisingly this definition implies that the requirement *the sourcecode*

[11] cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted; 2012 [n.y.] ⟨URL: `http://opensource.org/licenses/alphabetical`⟩ – reference download: 2013-01-22, wp.

[12] cf. *Open Source Initiative*: The Open Source Definition; 2012 [n.y.] ⟨URL: `http://www.opensource.org/docs/osd`⟩ – reference download: 2012-06-21, wp.

[13] cf. *Open Source Initiative*: The Open Source Initiative; 2012 [n.y.] ⟨URL: `http://www.opensource.org/about/`⟩ – reference download: 2013-01-22, wp.

[14] For stating it more precisely: to meet the OSD, is only a necessary condition for being an *open source license*. The sufficient condition for becoming an *open source license*, is the approval by the OSI which offers a process for becoming an officially approved *open source license* (cf. *Open Source Initiative*: The [OSI] Licence Review Process; 2012 [n.y.] ⟨URL: `http://www.opensource.org/approval`⟩ – reference download: 2013-01-22, wp.).

[15] cf. *Stallman, Richard M.*: Free Software Definition; originally written in 1996; In *Stallman*: Free Software, Free Society: Selected Essays, 2002, p. 41.

*must be openly accessible*, is 'only' a derived condition. If the 'freedom to make changes and the freedom to publish improved versions' shall be 'meaningful', then the 'access to the source code of the program' is a prerequisite. 'Therefore, accessibility of source code is a necessary condition for free software.'[16]

The difference between these the OSD and the FSD has often been described as a difference of emphasizing[17]: Although both definitions '[...] (cover) almost exactly the same range of software', the *Free Software Foundation* – as it is said – 'prefers [...] (to emphazise) the idea of freedom [...]' while the *OSI* wants to underline the philosophically indifferent 'development methodolgy'[18].

A third method to collect a special group of free software and free software licenses is specified by the 'Debian Free Software Guideline' which is embedded into the 'Debian Social Contract'. This 'DFSG' contains nine defining criteria which – as Debian itself says – have been '[...] adopted by the free[sic!] software community as the basis of the Open Source Definition'[19].

A rough understanding of these methods might allow to conclude that these three definitions are extensionally equal and only differ intensionally. But that is not true. To unveil the differences, let us compare the clusters *OSI approved licenses*, *OSD compliant licenses*, *DFSG compliant licenses*, and *FSD compliant licenses* extensionally, by asking whether they *could* establish different sets of licenses[20].

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16) cf. *Stallman*: Free Software Definition, 1996, p. 41.

17) This is also the viewpoint of Richard M. Stallman: On the one hand, he clearly states that the 'Free Software movement' and the 'open source movement' overall '[...] disagree on the basic principles, but agree more or less on the practical recommendations' and that he '[...] (does) not think of the open source movement as an enemy'. On the other hand, he deliniates the two movements by stating that 'for the open source movement, the issue of whether software should be open source is a practical question, not an ethical one', while 'for the Free Software movement, non-free software is a social problem and free software is the solution' (cf. *Stallman, Richard M.*: Why 'Free Software' is Better than 'Open Software'; originally written in 1998; In *Stallman*: Free Software, Free Society: Selected Essays, 2002, p. 55). As consequence, Richard M. Stallman summarizes the positions in a simple way: '[...] 'open source' was designed not to raise [...] the point that users deserve freedom'. But he and his friends want 'to spread the idea of freedom' and therefore '[...] stick to the term 'free software" (id., l.c., p. 59). For a brush-up of this position, expressing again that '(o)pen source is a development methodolgy [and that] free software is a social movement' with an 'ethical imparative' cf. *Stallman, Richard*: Viewpoint: Why "Open Source" Misses the Point of Free Software; in: Commununications of the ACM, 52 June (2009), No. 6 ⟨URL: `http://doi.acm.org/10.1145/1516046.1516058`⟩ – reference download: 2011-12-29, p. 31

18) pars pro toto: cf. *Fogel, Karl*: Producing Open Source Software; How to Run a Successful Free Software Project; Beijing, Cambridge, Köln [...]: O'Reilly, 2006, ISBN 978–0–596–00759–1, p. 232.

19) cf. *Debian*: The Debian Free Software Guidelines (DFSG); 2013 [n.y.] ⟨URL: `http://www.debian.org/social_contract#guidelines`⟩ – reference download: 2013-01-22, p. wp.

20) Indeed, for analyzing the extensional power of the definition we have to regard all potentially covered licenses, not only the already existing licenses, because the subset of really existing

First, one can easily determine the difference of an unidirectional inclusion: By definition, the *OSI approved licenses* and the *OSD compliant licenses* meet the requirements of the OSD[21]. But only the *OSI approved licenses* have successfully passed the OSI process[22] and therefore are officially listed as *open source licenses*[23]. Hence, on the one hand, *OSI approved licenses* are *open source licenses* and vice versa. On the other hand, both – the *OSI approved licenses* and the *open source licenses* – are *OSD compliant licenses*, but not vice versa.

Second, a similar argumentation leeds to the differences between the *DFSG compliant licenses* and the *OSI approved licenses*. As it is stated, the OSD '[...] is based on the Debian Free Software Guildeline and any license that meets one definition almost meets the other'[24]. But again, meeting the definition is not enough for being an official open source license: the license has to be approved by the OSI[25]. So, one can analogically say, that all *OSI approved licenses* are also *DFSG compliant licenses*, but not vice versa.

Third, – by ignoring the 'few exceptions' which have appeared 'over the years'[26] – one can say that, because of their 'kinsmanlike' relation, at least the *OSD compliant licenses* are also *DFSG compliant licenses* and vice versa.

Last but not least, one has to state that the (potential) set of free software licenses must be greater than all the other three sets: On the one side, the FSD requires that the license of free software must not only allow to read the software, but also permit to use, to modify, and to distribute it[27]. These conditions are covered by at least the first three paragraphs of the OSD concerning the topics 'Free Redistribution', 'Source Code', and 'Derived Works'[28]. On the other side, the OSD contains at least some requirements which are not mentioned by the FSD and which nevertheless must be met by a license for being an OSD compliant license[29]. Hence, logically regarded, there might exist licenses which fulfill all conditions of the FSD and nevertheless do not fulfill at least some conditions of the OSD[30]. So, the set of all (potential) *Free Software Licenses* must be greater

licenses still could be expanded be developing new licenses which fit the definition.

21) cf. *Open Source Initiative*: The Open Source Definition, 2012, wp.

22) cf. id., ibid.

23) cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.

24) cf. *Fogel*: Producing Open Source Software, 2006, p. 233.

25) cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.

26) cf. *Fogel*: Producing Open Source Software, 2006, p. 233.

27) cf. *Stallman*: Free Software Definition, 1996, p. 41.

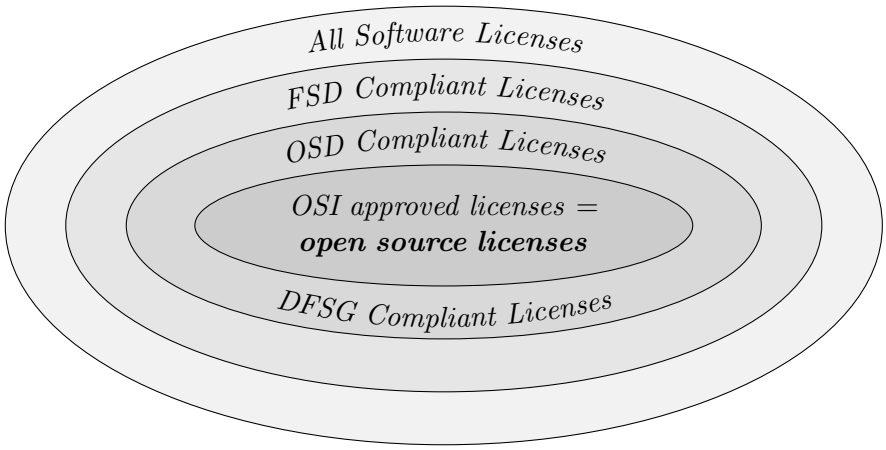
28) cf. *Open Source Initiative*: The Open Source Definition, 2012, wp.

29) For example, see the condition that 'the license must be technology-neutral' (cf. id., ibid.).

30) Let us repeat: we must consider the extensional potential of the definitions, not the set of really existing licenses. In this context, it is irrelevant that actually all existing Free Software Licenses like GPL, LGPL or AGPL indeed are also classfied as open source licenses. We are referring to the fact that there might be generated licenses which fulfill the FSD, but not the OSD.

than the set of all (potential) *open source licenses* and greater than the set of *OSD compliant licenses*.

All in all, we can visualize the situation by a picture like this:




It should be clear without longer explanations that these clusters don't allow to derive a correct compliant behaviour according to the *open source licenses*: On the one hand, all larger clusters do not talk about the *open source licenses*. On the other hand, the *open source license cluster* itself only collects elements on the base of the OSD which does not stipulates concrete license fulfilling actions of the licensee.

The next level of clustering *open source licenses* concerns the inner structure of these *OSI approved licenses*. Even the OSI itself has recently discussed whether a better kind of grouping the listed licenses would better fit the needs of the visitors of the OSI site[31]. And finally the OSI ends up in the categories 'popular and widely used (licenses) or with strong communities', 'special purpose licenses', 'other/miscellaneous licenses', 'licenses that are redundant with more popular licenses', 'non-reusable licenses','superseded licenses', 'licenses that have been voluntarily retired', and ' uncategorized licenses'[32].

Another way to structure the field of open source licenses is to think in 'types of open source licenses' by grouping the '*academic licenses*, so named because they were originally created by academic institutions'[33], the '*reciprocal licenses*',

[31] cf. *Open Source Initiative*: OSI Mailing List. License-discuss. Draft of new OSI licenses landing page; 2012 [n.y.] ⟨URL: `http://projects.opensource.org/pipermail/license-discuss/2012-April/000332.html`⟩ – reference download: 2013-01-29, wp.

[32] cf. *Open Source Initiative*: Open Source Licenses by Category; 2013 [n.y.] ⟨URL: `http://opensource.org/licenses/category`⟩ – reference download: 2013-01-29, wp.

[33] cf. *Rosen, Lawrence*: Open Source Licensing. Software Freedom and Intellectual Property Law; Upper Saddle River, New Jersey: Prentice Hall PTr, 2005, ISBN 0–13–148787–6, p. 69.

so named because they '[...] require the distributors of derivative works to distribute those works under same license including the requirement that the source code of those derivative works be published'[34], the '*standard licenses*', so named because they refer to the reusability of 'industry standards'[35], and the '*content licenses*', so named because they refer to '[...] other than software, such as music art, film, literary works' and so on[36].

Both kind of taxonomies directly help to find the relevant licenses which should be used for new (software) projects. But again: none of these categories does allow to infer the license compliant behaviour, because the categories are mostly defined on the base of license external criteria: answers to the questions, whether a license is published by a specific kind of organization or whether a license deals with industry standards or other kind of works than software, inherently do not evoke a license fulfilling behaviour.

Only the act of grouping into the '*academic licenses*' and the '*reciprocal licenses*' touches the idea of license fulfilling doings, if one – as it has been done – expands the definition of the '*academic licenses*' by the specification that these licenses '[...] allow the software to be used for any purpose whatsoever with no obligation on the part of the licensee to distribute the source code of derivative works'[37]. With respect to this additional specification, the clusters '*academic licenses*' and the '*reciprocal licenses*' indeed might be referred as the 'main categories' of (open source) licenses[38]: By definition, they are constituting not only a contrary, but contradictory opposite. But, one has also to keep in mind that they build an antinomy inside of the set of open source licenses[39].

Connatural to the clustering into *academic licenses* and *reciprocal licenses* is the grouping into *permissive licenses*, *weak copyleft licenses*, and *strong copyleft licenses*: Even Wikipedia already uses the term 'permissive free software licence' in the meaning of 'a class of free software licence[s] with minimal requirements about how the software can be redistributed' and 'contrasts' them with the 'copyleft licences' as those 'with reciprocity / share-alike requirements'[40].

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34) cf. *Rosen*: Open Source Licensing, 2005, p. 70.

35) cf. id., ibid.

36) cf. id., l.c., p. 71.

37) cf. id., ibid.

38) cf. id., l.c., p. 179.

39) Hence, it is at least a little confusing to say that 'the open source license (OSL) is a reciprocal license' and 'the Academic Free License (AFL) is the exact same license without the reciprocity provisions' (cf. id., l.c., p. 180): If the BSD license is an AFL and if an AFL can't be an OSL and if the OSI approves only OSLs, then the BSD license can't be an approved open source license. But in fact, it is (cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp).

40) cf. *Wikipedia (en)*: Permissive free software licence; n.l., 2013 [n.y.] ⟨URL: `http://en.wikipedia.org/wiki/Permissive_free_software_licence`⟩ – reference download: 2013-02-02, wp.

Some other authors name the set of *academic licenses* the 'permissive licenses' and specify the *reciprocal licenses* as 'restrictive licenses', because in this case – as consequence of the embedded 'copyleft' effect – the source code must be published in case of modifications. They additionally introduce the subset of 'strong restrictive licenses' which additionally require that an (overarching) derivative work must be published under the same license[41]. The next refinement of such clustering concepts directly uses the categories '[open source] licenses with a strict copyleft clause'[42], '[open source] licenses with a restricted copyleft clause'[43], and '[open source] licenses without any copyleft clause'[44]. Finally, this viewpoint can directly be mapped to the categories *strong copyleft* and *weak copyleft*: While on the one hand, 'only changes to the weak-copylefted software itself become subject to the copyleft provisions of such a license, [and] not changes to the software that links to it', on the other hand, the 'strong copyleft' states '[...] that the copyleft provisions can be efficiently imposed on all kinds of derived works'[45].

Based on this approach to an adequate clustering and labeling[46], we can develop the following picture:

[41] pars pro toto cf. *Buchtala, Rouven*: Determinanten der Open Source Software-Lizenzwahl. Eine spieltheoretische Analyse; Frankfurt am Main, Berlin, Bern [... etc.]: Peter Lang, 2007 (= Informationsmanagement und strategische Unternehmensführung), [Vol./No.] 12), ISBN 978–3–631–57114–9, p. 57.

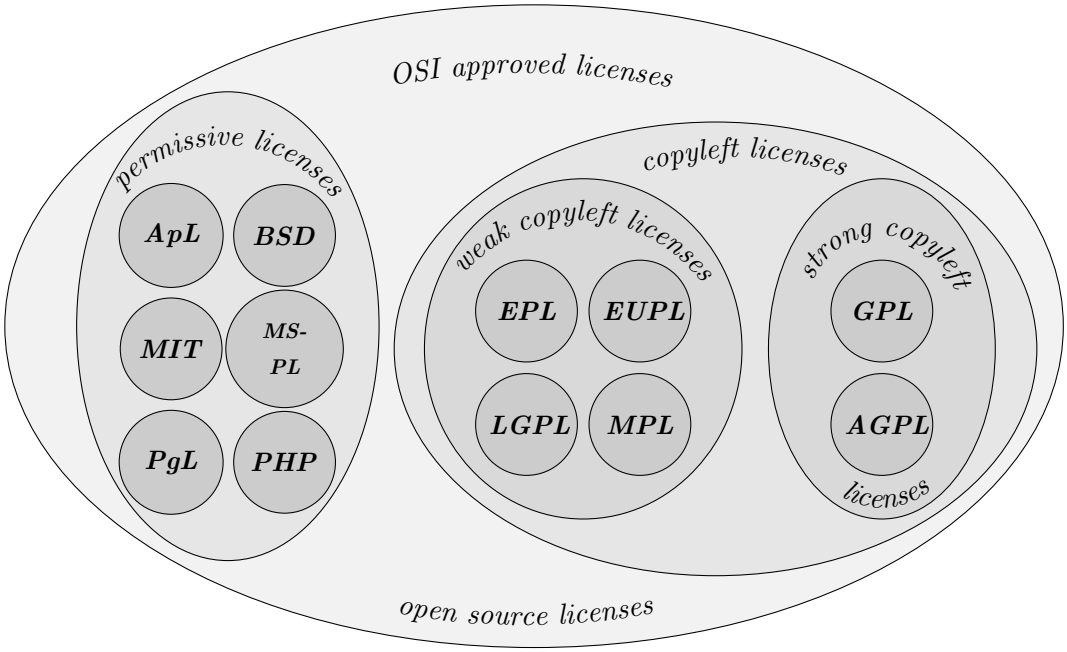
[42] Originally stated as 'Lizenzen mit einer strengen Copyleft-Klausel'. Cf. *Jaeger a. Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software, 2011, p. 24.

[43] Originally stated as 'Lizenzen mit einer beschränkten Copyleft-Klausel'. Cf. id., l.c., p. 71.

[44] Originally stated as 'Lizenzen ohne Copyleft-Klausel'. Cf. id., l.c., p. 83.

[45] cf. *Wikipedia (en)*: Copyleft; n.l., 2013 [n.y.] ⟨URL: `http://en.wikipedia.org/wiki/Copyleft`⟩ – reference download: 2013-02-02, wp.

[46] Finally, we should also mention that there still exists other classifications which might become important in other contexts. For example, the ifross license subsumes under the main category 'Open Source Licenses' the subcategories 'Licenses without Copyleft Effect', 'Licenses with Strong Copyleft', 'Licenses with Restricted Copyleft', 'Licenses with Restricted Choice', or 'Licenses with Privilegs' – and let finally denote these categories also licenses not listed by the OSI (cf. *ifross*: License Center; 2011 [n.y.] ⟨URL: `http://www.ifross.org/ifross_html/lizenzcenter-en.html`⟩ – reference download: 2013-02-26, wp.). This is well reasonable if one refers to the meaning of the OSD (cf. *Open Source Initiative*: The Open Source Definition, 2012, wp). The OSLiC has to simplify its object of study by referring to the approved open source licenses (cf. *Open Source Initiative*: The [OSI] Licence Review Process, 2012, wp) listed by the OSI (cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp).




This extensionally based clarification of a possible open source license taxonomy is probably well-known and often – more or less explicitly – referred[47]. Unfortunately, this taxonomy still contains some misleading underlying messages:

*Permissive* is a very positively connoted word. So, the antinomy of *permissive licenses* versus *copyleft licenses* implicitly signals, that the *permissive licenses* are in any meaning better, than the *copyleft licenses*. Naturally, this 'conclusion' is evoked by confusing the extensionally definition and the intensional power of the labels. But that is the way we – the human beings – like to think.

Anyway, this underlying message is not necessarily 'wrong'. It might be convenient for those people or companies who only want to use open source software without being restricted by the *giving back obligation* as it has been introduced by the 'copyleft'[48]. But there might be other people and companies which emphasize the protecting effect of the copyleft licenses. And indeed, at least the

[47] Even the FSF itself uses the term 'permissive non-copyleft free software license' (pars pro toto: cf. *Free Software Foundation*: Various Licenses and Comments about Them; 2013 [n.y.] ⟨URL: `http://www.gnu.org/licenses/license-list.html`⟩ – reference download: 2013-02-08, wp/section 'Original BSD license') and contrasts it with the terms 'weak copyleft' and 'strong copyleft' (pars pro toto: cf. id., l.c., wp/section 'European Union Public License')

[48] De facto, *copyleft* is not *copyleft*. Apart from the definition, its effect depends on the particular licenses which determine the conditions for applying the copyleft 'method'. For example, in the GPL, the copyleft effect is bound to the criteria 'being distributed'. Later on, we will collect these conditions systematically (see chapter *Open Source Use Cases: Concept and Taxonomy*, pp. 40). Therefore, here we permit ourselves still to use a somewhat 'generalizing' mode of speaking.

open source license[49] *GPL*[50] has initially been developed to protect the freedom, to enable the developers to help their 'neighbours' and to get the modifications back[51]: So, 'Copyleft' is defined as a '[...] method for making a programm free software and requiring all modified and extended versions of the program to be free software as well'[52]. It is a method[53] by which '[...] the code and the freedoms become legally inseparable'[54]. Because of these disparate interests of hoping not to be restricted and hoping to be protected, it could be helpful to find a better label – an impartial name for the cluster of *permissive licenses*. But up to that time, we should at least know that this taxonomy still contains an underlying declassing message.

The other misleading interpretation is – counter-intuitively – evoked by using the concept 'copyleft licenses'. If one refers to a cluster of *copyleft licenses* as the opposite of the *permissive licenses*, one implicitly also sends two messages: First, that republishing one's own modifications is sufficient to fulfill the *copyleft licenses*. And secondly that the *permissive licenses* do not require anything which has to be done for getting the right to use the software. Even if one does not wish to evoke such an interpretation, we – the human beings – tend to take the things as simple as possible[55]. But because of several aspects, this understanding

[49] Although RMS naturally prefers to specify it as a *Free Software License* (s. p. 14)

[50] As the original source cf. *Free Software Foundation*: GNU General Public License, version 2; 1991 [n.y. of the html page itself] ⟨URL: `http://www.gnu.org/licenses/gpl-2.0.html`⟩ – reference download: 2013-02-05, wp. Inside of the OSLiC, we constantly refer to the license versions which are published by the OSI, because we are dealing with officially approved open source licenses. For the 'OSI-GPL' cf. *Open Source Initiative*: GNU General Public License, version 2 (GPL-2.0). Version 2, June 1991; 1991 [n.y. of the html page itself] ⟨URL: `http://opensource.org/licenses/GPL-2.0`⟩ – reference download: 2013-02-05, wp

[51] The history of the GNU project is multiply told. For the GNU project and its initiator cf. pars pro toto *Williams, Sam*: Free as in Freedom. Richard Stallman's Crusade for Free Software; Beijing [... etc.]: O'Reilly, 2002, ISBN 0–596–00287–4, passim. For a broader survey cf. pars pro toto *Moody*: Die Software-Rebellen, 2001, passim. A very short version is delivered by Richard M. Stallman himself where he states that – in the years while the early free community were destroyed – he saw the 'nondisclosure agreement' which must be signed , '[...] even to get an executable copy' as a clear '[...] promise not to help your neighbour': 'A cooperating community was forbidden.' (cf. *Stallman, Richard M.*: The GNU Project; originally published in 'Open Sources: Voices from the Open Source Revolution, O'Reilly, 1999'; In *Stallman*: Free Software, Free Society: Selected Essays, 2002, p. 16).

[52] cf. *Stallman, Richard M.*: What is Copyleft? originally written in 1996; In *Stallman*: Free Software, Free Society: Selected Essays, 2002, p. 89.

[53] Based on the American legal copyright system, this method uses two steps: firstly one states, '[...] that it is copyrighted [...]' and secondly one adds those '[...] distribution terms, which are a legal instrument that gives everyone the rights to use, modify, and redistribute the program's code or any program derived from it but only if the distribution terms are unchanged' (cf. id., ibid.).

[54] cf. id., ibid.

[55] And indeed, it is the experience of the authors that – sometimes – on the management

of the antinomy of *copyleft licenses* and *permissive licenses* is too misleading for taking it as a serious generalization:

On the one hand, even the 'strongly copylefted' GPL requires also other license fulfilling tasks than only republishing derivative works. For example, it additionally demands to '[...] give any other recipients of the [GPL licensed] Program a copy of this License along with the Program'[56]. Furthermore, the 'weakly copylefted' licenses require also more and different criteria which has to be fulfilled for acting according to these licenses. For example, the EUPL requires that the licensor who does not directly deliver the binaries together with the sourcecode, must offer a sourcecode version of his work free of charge[57], while the MPL requires that under the same circumstances a recipient '[...] can obtain a copy of such Source Code Form [...] at a charge no more than the cost of distribution to the recipient [...]'[58]. And last but not least, also the *permissive licenses* require tasks which must be fulfilled for a license compliant usage – moreover, they also require different things. For example, the BSD demands that 'the (re)distributions [...] must (retain [and/or]) reproduce the above copyright notice [...]'. Because of the structure of the 'copyright notice', this required announcement implies that the authors / copyright holders of the software must be publicly named[59]. As opposed to this, the Apache License requires that 'if the (w)ork includes a "NOTICE" text file as part of its distribution, then any (d)erivative (w)orks that (y)ou distribute must include a readable copy of the attribution notices contained within such NOTICE file' what often means that you have to present central parts of such file publicly[60] – parts which can contain many more information than only the

level, such simplifications gain their independent existence and determine decisions. But that is not the fault of the managers. It is their task, to aggregate, generalize and simplify information. It is the task of the experts, to offer better viewpoints without overwhelming the others with details.

56) cf. *Open Source Initiative*: The GPL-2.0 License (OSI), 1991, wp §1.

57) The German version of the EUPL uses the phrase 'problemlos und unentgeltlich(sic!) auf den Quellcode (zugreifen können)' (cf. *Europäische Gemeinschaft* a. *European commission Joinup*: Open-Source-Lizenz für die Europäische Union; 2007 ⟨URL: `http://joinup.ec.europa.eu/system/files/DE/EUPL%20v.1.1%20-%20Lizenz.pdf`⟩ – reference download: 2013-02-08, pp. 3, section 3) while the English version contains the specification 'the Source Code is easily and freely accessible' (cf. *European Community* a. *European commission Joinup*: European Union Public Licence v. 1.1. 2007 ⟨URL: `http://joinup.ec.europa.eu/system/files/EN/EUPL%20v.1.1%20-%20Licence.pdf`⟩ – reference download: 2013-02-08, pp. 2, section 3)

58) cf. *Open Source Initiative*: Mozilla Public License 2.0 (MPL-2.0); 2013 [n.y.] ⟨URL: `http://opensource.org/licenses/MPL-2.0`⟩ – reference download: 2013-02-07, section 3.2.a.

59) cf. *Open Source Initiative*: The BSD 2-Clause License; 2012 [n.y.] ⟨URL: `http://www.opensource.org/licenses/BSD-2-Clause`⟩ – reference download: 2012-07-03, wp.

60) cf. *Open Source Initiative*: Apache License, Version 2.0; 2004 [n.y. of the page itself] ⟨URL: `http://opensource.org/licenses/Apache-2.0`⟩ – reference download: 2013-02-07, wp. section 4.4.

names of the authors / copyright holders.

So, no doubt – and against the intuitive interpretation of this taxonomy – each *open source license* must be fulfilled by some actions, even the most permissive. And for ascertaining these tasks, one has to review these licenses themselves, not the generalized concepts of licenses taxonomies. Hence again, we have to state that even this well known kind of grouping of *open source licenses* does not allow to derive a specific license compliant behavior: The taxonomy might be appropiate, if one wants to live with the implicite messages and generalizations of some of its concepts. But the taxonomy is not an adequate tool to determine, what one has to do for fulfilling an *open source license*. A license compliant behaviour for getting the right to use a specific piece of *open source software* must refer to the concrete *open source license* by which the licensor has licensed the software. There doesn't exist any shortcut.

Nevertheless, human beings need generalizing and structuring viewpoints for enabling themselves to talk about a domain – even if they finally have to regard the single objects of the domain for specific purposes. We think that there is a subtler method to regard and to structure the domain of *open source licenses*. So, we want to offer this other possibility to cluster the *open source licenses*[61]:

We think that in general, licenses have a common purpose: they should protect someone or something against something. The structure of this task is based on the nature of the word 'protect' which is a 3 valent verb: it links someone or something who protects, to someone or something who is protected and both together to something against the protector protects and against the other one is protected. Licenses in general do so. Therefore, it is also the purpose of open source licenses to protect: They can protect the user (recipient) of the software, its contributor resp. developer and/or distributor, and the software itself. And they can protect them against different threats:

- First, we assume, that - in the context of open source software - the user can be protected against the loss of the right to use it, to modify it, and to redistribute it. Additionally, he can be protected against patent disputes.
- Second, we assume, that open source contributors and distributors can be protected against the loss of feedback in form of code improvements and derivatives, against warranty claims, and against patent disputes.
- Third, we assume, that the open source programs and their specific forms – may they be distributed or not, may they be modified or not, may they be distributed as binaries or as sources – can be protected against the 'reclosing of their further development.

With respect to these viewpoints, one gets a subtler picture of the license specific

[61] even if finally also we have to concede that at the end one has to look into the license itself.

protecting power. Thus, we are going to describe and deduce the protecting power of each of the open source licenses on the following pages. Table 2.1 summarizes the results as a quick reference[62].

## 2.1 The protecting power of the Affero Gnu Public License (AGPL) [tbd]

- The Affero Gnu Public License protects ...
- But the Affero Gnu Public License does not protect ...

## 2.2 The protecting power of the Apache License (ApL)

- As an approved *open source license*[63], the Apache License[64] protects the user against the loss of the right to use, to modify and/or to distribute the received copy of the source code or the binaries[65]. Furthermore, based on its patent clause[66], the ApL protects the users against patent disputes[67]. Because of this patent clause and of its 'disclaimer of warranty' together with its 'limitation of liability', the Apache license also protects the contributors / distributors against patents disputes and warranty claims[68]. Finally, the ApL protects the distributed sources themselves *against* a change of the license which would *reset* the work *as closed software*, because first, one '[...] must give any other recipients of the work or derivative works a

[62] → table 2.1 on p. 24

[63] cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.

[64] The Apache License, version 2.0 is maintained by the Apache Software Foundation (cf. *Apache Software Foundation*: Apache License, Version 2.0; 2004 ⟨URL: `http://www.apache.org/licenses/LICENSE-2.0`⟩ – reference download: 2011-08-31, wp). Of course, also the OSI is hosting a duplicate (cf. *Open Source Initiative*: APL-2.0, 2004, wp). By reviewing the 'licenses by name' list of the OSI one can directly see that the OSI has only approved the Apache License, version 2.0: earlier versions are not listed (cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp). In the same spirit, also the Apache Software Foundation itself classifies the releases 1.0 and 1.1 as 'historic' (cf. *Apache Software Foundation*: Licenses; 2013 [n.y ] ⟨URL: `http://www.apache.org/licenses/`⟩ – reference download: 2013-02-25, wp). Thus, in the proper meaning, it is correct to speak of 'the (one) Apache open source license' and to ignore the earlier versions 1.0 and 1.1 in a compendium dealing only with open source licenses. For those, who have to fulfill these earlier Apache licenses it could perhaps be helpful to read them as siblings of the BSD-2Cl and BSD-3CL licenses.

[65] cf. *Open Source Initiative*: APL-2.0, 2004, wp §2.

[66] → OSLiC pp. 37

[67] cf. id., l.c., wp §3.

[68] cf. id., l.c., wp §3, §7, §8.

Table 2.1: Open Source Licenses as Protectors

| *Open Source Licenses*[a] | | *are protecting* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Users** | | | | **Contributors** (Distributors) | | | **Software** | | | | |
| | | | | | | | | | not distributed | distributed as | | | |
| | | | | | | | | | | modified | | unmodified | |
| | | *who have already got sources or binaries* | | | | *who spread open source software* | | | | sources | binaries | sources | binaries |
| | | *against* | | | | | | | | | | | |
| | | the loss of the right to | | | Patent Disputes | Loss of Feedback | Warranty Claims | Patent Disputes | Re-Closings of already opened software | | | | |
| | | use it | modify it | redistribute it | | | | | | | | | |
| ApL | 2.0 | ✓ | ✓ | ✓ | ✓ | ¬ | ✓ | ✓ | ¬ | ✓ | ¬ | ✓ | ¬ |
| BSD | 3-Cl | ✓ | ✓ | ✓ | ¬ | ¬ | ✓ | ¬ | ¬ | ✓ | ¬ | ✓ | ¬ |
| | 2-Cl | ✓ | ✓ | ✓ | ¬ | ¬ | ✓ | ¬ | ¬ | ✓ | ¬ | ✓ | ¬ |
| MIT | | ✓ | ✓ | ✓ | ¬ | ¬ | ✓ | ¬ | ¬ | ✓ | ¬ | ✓ | ¬ |
| MS-PL | | ✓ | ✓ | ✓ | ✓ | ¬ | ✓ | ✓ | ¬ | ✓ | ¬ | ✓ | ¬ |
| PgL | | ✓ | ✓ | ✓ | ¬ | ¬ | ✓ | ¬ | ¬ | ✓ | ¬ | ✓ | ¬ |
| PHP | 3.0 | ✓ | ✓ | ✓ | ¬ | ¬ | ✓ | ¬ | ¬ | ✓ | ¬ | ✓ | ¬ |
| *CDDL* | 1.0 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| EPL | 1.0 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| EUPL | 1.1 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| LGPL | 2.1 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| | 3.0 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| MPL | 1.1 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| | 2.0 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| *MS-RL* | | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| AGPL | 3.0 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| GPL | 2.1 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |
| | 3.0 | ✓ | ✓ | ✓ | – | – | – | – | – | – | – | – | – |

[a] '✓' indicates that the license protects with respect to the meaning of the column, '¬' indicates that the license does not protect with regard to the meaning of the column, and '–' indicates, that the corresponding statement must still be evaluated.

copy of (the Apache) license', second, 'in the source form of any derivative works that (one) distributes', one has '[...] to retain [...] all copyright, patent, trademark, and attribution notices [...]', and third, one must '[...] include a readable copy [...of the] NOTICE file' being supplied by the original package one has received[69].

- But the Apache License does not protect the contributors against the loss of feedback because it does not 'copyleft' the software: the Apache license does not contain any sentence requiring that one has also to publish the source code. In the same spirit, the ApL does not protect the undistributed software or the distributed binaries against re-closings – neither in unmodified nor in modified form – because the Apache License allows to (re)distribute the binaries without also supplying the sources – even if the binaries rest upon sources modified by the distributor.

## 2.3 The protecting power of the BSD licenses

- As approved *open source licenses*[70], the BSD Licenses[71] protect the user against the loss of the right to use, to modify and/or to distribute the received copy of the source code or the binaries[72]. Additionally, they protect the contributors and/or distributors against warranty claims of the software users, because these licenses contain a 'No Warranty Clause'[73]. And finally they protect the distributed sources against a change of the license which closes the sources, because each modification and 'redistributions of [the] source code must retain the [...] copyright notice, this list of conditions and the [...] disclaimer'[74]: Therefore it is uncorrect to distribute a BSD licensed code under another license – regardless, whether it closes the sources or not[75].

69) cf. *Open Source Initiative*: APL-2.0, 2004, wp §4.

70) cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.

71) BSD has to be resolved as *Berkely Software Distribution*. For details of the BSD license release and namings cf. *Open Source Initiative*: The BSD 3-Clause License; 2012 [n.y.] ⟨URL: `http://www.opensource.org/licenses/BSD-3-Clause`⟩ – reference download: 2012-07-04, wp. editorial

72) cf. *Open Source Initiative*: The Open Source Definition, 2012, wp §1ff.

73) one for all version cf. *Open Source Initiative*: The BSD 2-Clause License, 2012, wp.

74) cf. id., ibid.

75) In common sense based discussions you may have heard that BSD licenses allow to republish the work under another, an own license. Taking the words of the BSD License seriously that is not valid under all circumstances: Yes, it is true, you are not required to redistribute the sourcecode of a modified (derivative) work. You are allowed to modify a received version and to distribute the results only as binary code and to keep your improvements closed. But if you distribute the source code of your modifications, you have retain the licensing, because 'Redistribution [...] in source [...], with or without modification, are permitted

- But the BSD Licenses protect neither the users nor the contributors and/or distributors against patent disputes (because they do not contain any patent clause). They do not protect the contributors against the loss of feedback (because they do not 'copyleft' the software). Moreover, they do not protect the undistributed software or the distributed binaries against re-closings – neither in unmodified nor in modified form – because they allow to redistribute only the binaries without also supplying the source code[76].

## 2.4 The protecting power of the Eclipse Public License (EPL) [tbd]

- The Eclipse Public License protects ...
- But the Eclipse Public License does not protect ...

## 2.5 The protecting power of the European Public License (EUPL) [tbd]

- The European Public License protects ...
- But European Public License does not protect ...

## 2.6 The protecting power of the Gnu Public License (GPL) [tbd]

- The Gnu Public License protects ...
- But the Gnu Public License does not protect ...

## 2.7 The protecting power of the Lesser Gnu Public License (LGPL) [tbd]

- The Lesser Gnu Public License protects ...
- But the Lesser Gnu Public License does not protect ...

provided that [...] (the) redistributions of source code [...] retain the above copyright notice, this list of conditions and the following disclaimer' (cf. *Open Source Initiative*: The BSD 2-Clause License, 2012, wp

[76] see both, the BSD-2CL License (cf. id., ibid.), and the BSD-3CL License (cf. *Open Source Initiative*: The BSD 3-Clause License, 2012, wp)

## 2.8 The protecting power of the MIT license

- As an approved *open source license*[77], the MIT License[78] protects the user against the loss of the right to use, to modify and/or to distribute the received copy of the source code or the binaries[79]. Additionally, it protects the contributors and/or distributors against warranty claims of the software users, because it contains a 'No Warranty Clause'[80]. And finally it protects the distributed sources against a change of the license which would close the sources, because the 'permission [...] to use, copy, modify, [...] distribute, [...] (is granted) subject to the [...] conditions, [that] the [...] copyright notice and this permission notice shall be included in all copies or substantial portions of the Software'[81]
- But the MIT License protect neither the users nor the contributors and/or distributors against patent disputes (because it does not contain any patent clause). It does not protect the contributors against the loss of feedback (because it does not 'copyleft' the software). Moreover, the MIT license does not protect the undistributed software or the distributed binaries against re-closings – neither in unmodified nor in modified form – because it allows to redistribute only the binaries without also supplying the source code[82]

## 2.9 The protecting power of the Mozilla Public License (MPI) [tbd]

- The Mozilla Public License protects ...
- But the Mozilla Public License does not protect ...

77) cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.

78) MIT has to be resolved as 'Massachusetts Institute of Technology' (cf. *Wikipedia (en)*: MIT License; n.l, 2011 ⟨URL: `http://en.wikipedia.org/wiki/MIT_License`⟩ – reference download: 2011-09-20, wp)..

79) cf. *Open Source Initiative*: The Open Source Definition, 2012, wp 1ff.

80) cf. *Open Source Initiative*: The MIT License; 2012 [n.y.] ⟨URL: `http://opensource.org/licenses/mit-license.php`⟩ – reference download: 2012-08-24, wp.

81) cf. id., ibid.. The argumentation why the source code is protected, but not the binary form follows that of the BSD licenses: By these requirements, one is not obliged to redistribute the sourcecode of a modified (derivative) work. One is allowed to modify a received version and to distribute the results only in binary form and to keep one's improvements closed. But if one distribute the source code of the modifications, the licensing is retained, simply because the MIT '[...] permission note shall be included in all copies or substantial portions of the software'.

82) cf. id., ibid.

## 2.10 The protecting power of the Microsoft Public License (MS-PL)

- As an approved *open source license*[83], the Microsoft Public License protects the user against the loss of the right to use, to modify and/or to distribute the received copy of the source code or the binaries[84]. Furthermore, based on its patent clause[85], the MS-PL protects the users against patent disputes[86]. Because of this patent clause and of its concise *disclaimer of warranty*, the MS-PL also protects the contributors / distributors against patents disputes and warranty claims[87]. Finally, the Microsoft Public License protects the distributed sources themselves - and even 'portions of these sources' – *against* a change of the license which would *reset* the work *as closed software*, because first, one '[...] must retain all copyright, patent, trademark, and attribution notices that are present in the software'[88], and because second, one must also incorporate 'a complete copy of this license' into one's own distribution premised one distributes the source code[89].
- But the Microsoft Public License does not protect the contributors against the loss of feedback because it does not 'copyleft' the software: The license does not contain any sentence which requires that one has to publish the sources, too[90]. In the same spirit, the MS-PL does not protect the undistributed software or the distributed binaries against re-closings – neither in unmodified nor in modified form – because the MS-PL License allows to (re)distribute the binaries without also supplying the sources – even if the

[83] cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.

[84] cf. *Open Source Initiative*: Microsoft Public License (MS-PL); 2013 [n.y.] ⟨URL: `http://opensource.org/licenses/MS-PL`⟩ – reference download: 2013-02-26, wp. §2.

[85] → OSLiC pp. 38

[86] cf. id., l.c., wp. §2.B and §3.B.

[87] cf. id., l.c., wp. §2B, §3B, §3D.

[88] cf. id., l.c., wp. §3C.

[89] cf. id., l.c., wp. §3D.

[90] There seems to be some misunderstandings on the internet: The English wikipedia specifies the MS-PL as a permissive license and the MS-RL as a license with copyleft effect (cf. *Wikipedia (en)*: Shared source; n.l, 2013 [n.y.] ⟨URL: `http://en.wikipedia.org/wiki/Shared_source`⟩ – reference download: 2013-02-26, wp.). The German wikipedia says that the MS-PL is a license with a 'schwachen [weak] copyleft' (cf. *Wikipedia (de)*: Microsoft Public License; n.l, 2013 [n.y.] ⟨URL: `http://de.wikipedia.org/wiki/Microsoft_Public_License`⟩ – reference download: 2013-02-26, wp.). And it says also that the 'Microsoft Reciprocal License' (MS-RL) is a license with weak copyleft, too (cf. *Wikipedia (de)*: Microsoft Reciprocal License; n.l, 2013 [n.y.] ⟨URL: `http://de.wikipedia.org/wiki/Ms-RL`⟩ – reference download: 2013-02-26, wp.). But for the very thoroughly working 'ifross license center', the MS-RL is a license with restricted (weak) copyleft, while the MS-PL is a permissive license with some selectable options (cf. *ifross*: ifross Lizenz-Center, 2011, wp.). Based on the license text itself and these other readings, we decided to take the MS-PL as a permissive license in accordance to the English wikipedia page and the ifross page.

binaries rest upon sources modified by the distributor.

## 2.11 The protecting power of the Postgres License (PgL)

- As an approved *open source license*[91], the PostgreSQL License protects the user against the loss of the right to use, to modify and/or to distribute the received copy of the source code or the binaries[92]. Because of its *disclaimer of warranty*, the PgL also protects the contributors / distributors against warranty claims[93]. Finally, the PgL protects the distributed sources themselves *against* a change of the license which would *reset* the work *as closed software*, because the 'copyright notice' and the whole license must '[...] appear in all copies'[94].
- But the PostgreSQL License does not protect the contributors against the loss of feedback because it does not 'copyleft' the software: The license does not contain any sentence which requires that one has to publish the sources, too. In the same spirit, the PgL does not protect the undistributed software or the distributed binaries against re-closings – neither in unmodified nor in modified form – because the PgL allows to (re)distribute the binaries without also supplying the sources – even if the binaries rest upon sources modified by the distributor.

## 2.12 The protecting power of the PHP License

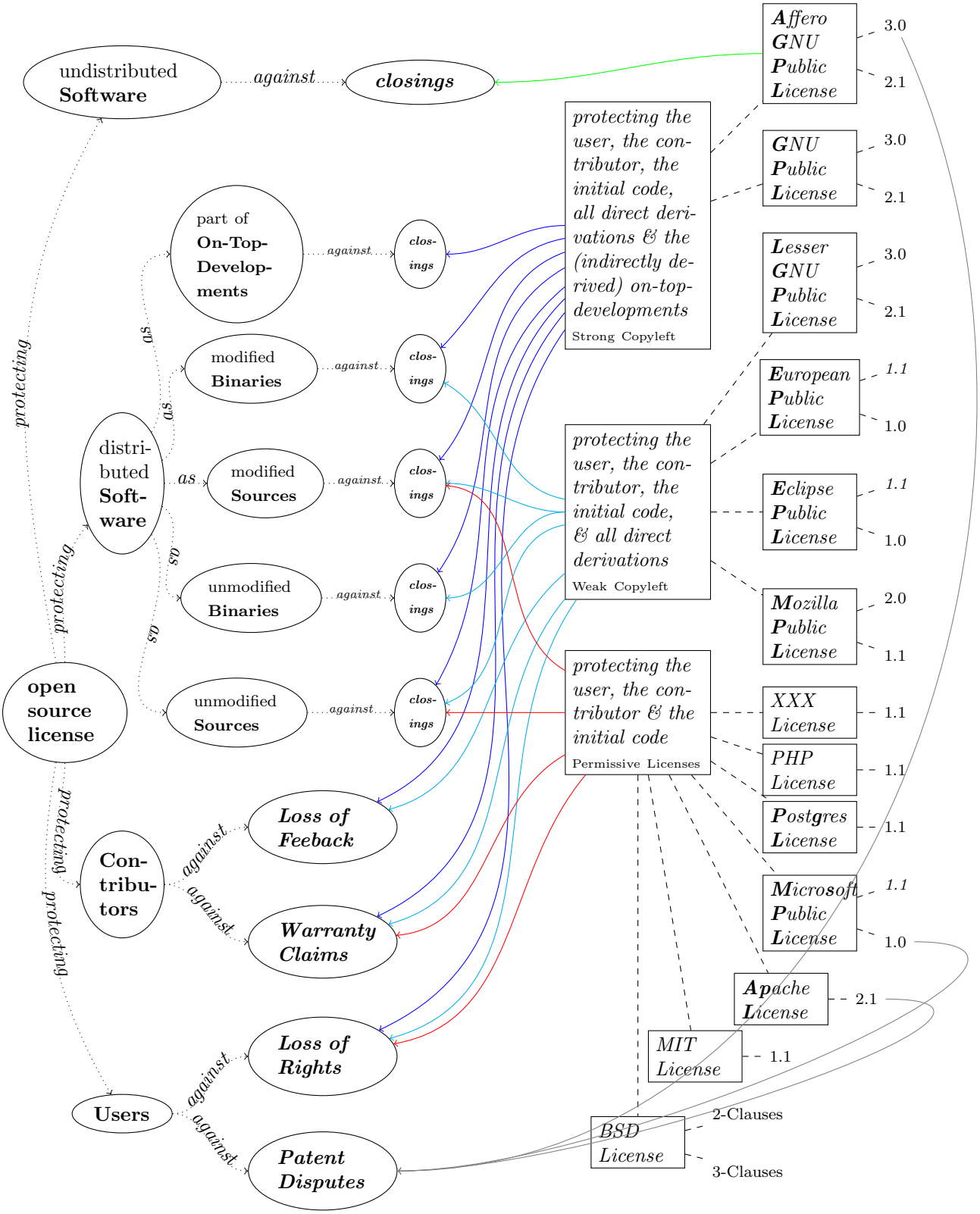
- As an approved *open source license*[95], the PHP-3.0 License protects the user against the loss of the right to use, to modify and/or to distribute the received copy of the source code or the binaries[96]. Because of its *disclaimer of warranty*, the PHP license also protects the contributors / distributors against warranty claims[97]. Finally, the PHP license protects the distributed sources themselves *against* a change of the license which would *reset* the work *as closed software*, because 'redistributions of source code must retain the above copyright notice, this list of conditions and the [...] disclaimer'[98].

91) cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.
92) cf. *Open Source Initiative*: The PostgreSQL Licence (PostgreSQL); 2013 [n.y.] ⟨URL: `http://opensource.org/licenses/PostgreSQL`⟩ – reference download: 2013-02-27, wp..
93) cf. id., ibid.
94) cf. id., ibid.
95) cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp.
96) **?**, cf..
97) **?**, cf..
98) **?**, cf..

- But the PHP-3.0 License does not protect the contributors against the loss of feedback because it does not 'copyleft' the software: The license does not contain any sentence which requires that one has to publish the sources, too. In the same spirit, the PHP license does not protect the undistributed software or the distributed binaries against re-closings – neither in unmodified nor in modified form – because the PHP license allows to (re)distribute the binaries without also supplying the sources – even if the binaries rest upon sources modified by the distributor.

All these specifications cannot only be summarized by a table[99], but also by a mindmap:

[99] *rightarrow* 24




Finally, one could generate new groups of open source license, new classes, like

'user protecting licenses'[100], 'patent disputes fending licenses', an so on.

But one has to know: all of these grouping viewpoints do not allow to conclude that all members of a group can be respected by fulfilling the same requirements. This would only be possible if the grouping criteria would directly refer to the fulfilling tasks. And indeed, nearly all open source licenses do differ with respect to these criteria, even if the differences are very small, they can't be neglected[101]. So: reflecting on possible classes of open source licenses is a good method to become familiar with the area of open source licenses. But it is not a method to determine, what one has to do for getting the right to use the software. For getting these information, one has to consider each single license.

[100] all of them because all of them have to fulfill the OSD

[101] Pars pro toto: Both, the BSD license and the Apache license require that you give hint to the developers of the application. But in case of the BSD license you xýou have to .... In case of the Apache license you have exactly to present the content of the notice file distributed together with the application.

# 3 Open Source: About Some Side Effects

## 3.1 The problem of implicitly releasing patents

> *In this chapter, we are briefly analyzing the effect of patent clauses in open source licenses – not in general, but with respect to the license fulfilling tasks they require, also known as the 'implicit acceptance of a patent use' by distributing open source software.*

At least the free software movement frowns on the existence of software patents[102]. One of the most known witnesses for that attitude is the GPL itself. Its preamble purports that '[...] any free program is threatened constantly by software patents'[103]. One can read that the open source community fears three risks: First, they are apprehensive of people who hjack the idea of a piece of open source software they do not have developed, register a corresponding patent, and finally try to earn money by preventing the use of the software or by envolving its users into patent ligitations[104]. Second, they fear a bramble of general software patents which practically prohibits to develop open source software legally[105]. Third,

[102] For an early and elaborated description on the effects of software patents based on the viewpoint of the free software movement see *Stallman, Richard M.*: Free Software: Freedom and Cooperation; transcript of a speech given at New York University on 29 May 2001; In *Stallman*: Free Software, Free Society: Selected Essays, 2002, wp. This lecture seems to be given more than onetime and seems also to have been printed lateron (cf. *Stallman, Richard M.*: The Danger of Software Patents; transcript of a speech given at University of Cambridge, London on the 25th of March 2002; In *Stallman*: Free Software, Free Society: Selected Essays, 2002, wp). Within the first decade of 2000, the focus switched to a more political fight against software patents (cf. *Stallman, Richard M.*: Fighting Software Patents - Singly and Together; n.st. [2004] ⟨URL: `http://www.gnu.org/philosophy/fighting-software-patents.html`⟩ – reference download: 2013-02-18, wp). But recently there seemed to appear another turn in dealing with software patents: Not fighting against them, but mitigating their effects: The proposal is '[...] (to legislate) that developing, distributing, or running a program on generally used computing hardware does not constitute patent infringement' (cf. *Stallman, Richard M.*: Let's Limit the Effect of Software Patents, Since We Can't Eliminate Them; in: Wired, n.st. January (2012) ⟨URL: `http://www.wired.com/opinion/2012/11/richard-stallman-software-patents/`⟩ – reference download: 2013-02-18, ISSN n.st., wp)

[103] cf. *Open Source Initiative*: The GPL-2.0 License (OSI), 1991, p. wp.

[104] cf. *Jaeger a. Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software, 2011, p. 234.

[105] cf. id., ibid.

they anticipate the possibility that (not quite benevolent) open source developers could try to register patents for undermining the open source principles[106].

Howsoever, regardless wether one tries to fight against software patents or not, software patents have come true. To act law-abidingly requires to manage the constraints of patents properly. Open source licenses know and respect this necessity. Moreover, at least some of them try to manage the effect of software patents by specific patent clauses[107] or by several sentences distributed in the license text[108]. But why does the OSLiC have to deal with this topic, if the OSLiC does not want to participate in general discussions?

In opposite to the other conditions of the open source licenses, their patent clauses or propositions in general do not directly refer to a specific set of actions which has to be executed for acting in accordance to the licenses. Open source patent clauses normally do not join in the game 'paying by doing'. So, actually, it does not seem to be not necessary to mention the patent clauses, here.

Unfortunately, although the patent clauses do not directly say *'do this or that in these or those circumstances'*, some of them nevertheless trigger side effects which evoke that the distributors of open source software implictly having already something done if they actually are distributing a piece of open source software. This implicit effect makes it necessary to deal with the patent clauses even in an only pragmatic OSLIC.

Patent clauses in open source licenses can have two different directions of impact. They use two methods to protect the users of the open source software – and sometimes these methods are combined:

- First, an open source license can assure that all contributors / distributors to / of a piece of open source software grant to all users / recipients not only the right to use the open source software itself, but automatically and implicitly also the right to use all those patents – belonging to the contributors / distributors – which as patents are necessary to use the software legally[109]. So, let us - a little simplifying and therefore only on the

[106] cf. *Jaeger a. Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software, 2011, p. 235.

[107] pars pro toto cf. *Open Source Initiative*: APL-2.0, 2004, wp. §3.

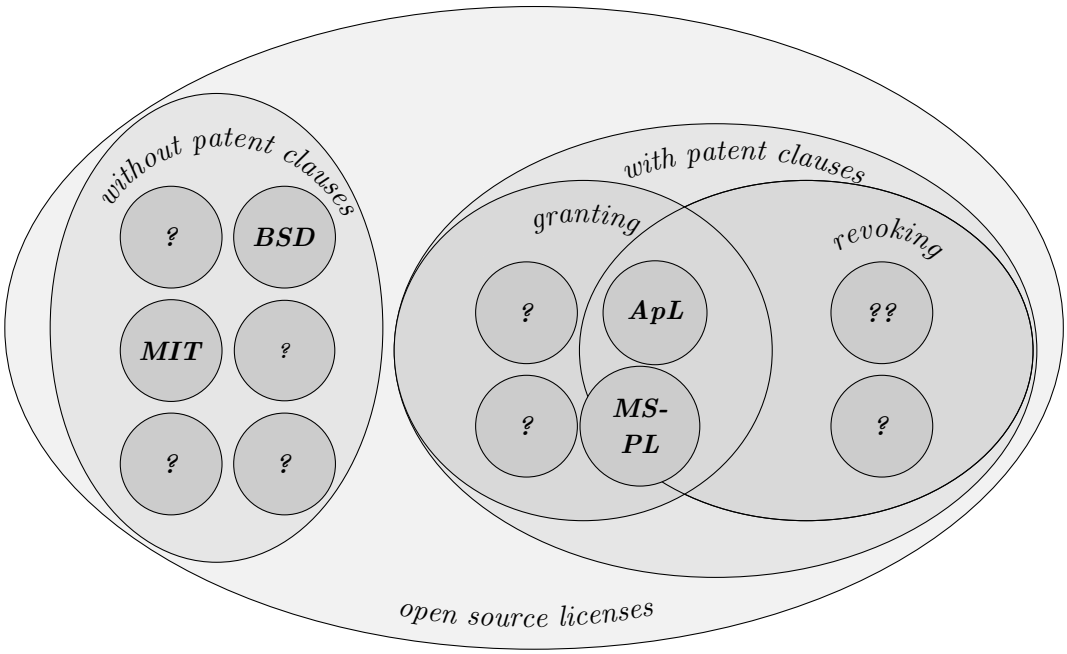
[108] pars pro toto cf. *Open Source Initiative*: Eclipse Public License, Version 1.0; 2005 [n.y. of the page itself] ⟨URL: `http://opensource.org/licenses/EPL-1.0`⟩ – reference download: 2013-02-20, wp..

[109] There might arise a legal discussion whether a distributor who does not contribute to the software development really imlictly also has to grant the necessary rights of his patent portfolio. The OSLiC doesn't want to participate in this discussion. We take a simple and pragmatic position: for being sure that you are acting according to an open source license with such a patent clause you should simply assume that you have to do so. If this default position is not reasonable for you it might be a good idea to consult legal experts which – perhaps – may find another way for you to use the software legally.

following few pages – name such licenses the *granting licenses*.

- Second, an open source license can try to automatically terminate the right to use, to modify , and to distribute the software if its user litigates against any of the contributors / distributors with respect to a software patent. That can be seen as a revocation of earlier granted rights. So, let us name these license the *revoking licenses*.

Later on, we will summarize the concrete patent clauses of all the licenses discussed in the OSLiC as a proof for the following classification:




But regardless of the final textual form a license is using to express its granting or revoking positions, in any case one has to consider some aspects:

- Overall, one has to keep in mind that of course no licensor, contributor and/or distributor can release the right to use any patents he does not own – even not if he tries to release them by an open source patent clause. Implictly touched patents of third parties not having contributed to the development and/or participated in the distribution can never be implicitly and automatically released on the base of such an (open source) patent clause: no rights, no right to release[110]. Hence: even for those open source

[110] This is an important aspect which is sometimes not considered by programmers. Inside of DTAG we had a fruitful discussion evoked by Mr. Stephan Altmeyer who – as patent lawyer – patiently explained this constraint to us.

licenses which try to protect the users, finally the user itself must nevertheless ensure that he does not violate the patents of third parties being unwillingly touched by the way the code works[111].

- In the context of a granting license, one has also to consider that contributing to and distributing of a piece of software implictly evokes that all patents of the contributor and/or distributor are 'given free' which are necessary to use the software as whole – including the more or less deeply embedded libraries. So, if one wants to check wether some of the core patents of one's patent portfolio are afflicted by a patent clauses (and wether one therefore better should not use / distribute the corresponding piece of open source software), one should not forget to check the embedded libraries, too.
- Finally, one has to consider in the context of a granting license that its patent clause only releases the use of the patents in the meaning of 'allowed to be used for enabling the use of the distributed software'. The patent clause does not release the patents generally. Thus, the threat of (unwillingly) releasing patents by open source software is not as large as sometimes feared: the use of the patent is only granted in combination with the software. On the one hand, you may not use the software without having the right to use the patent because the use of the patent is inherently necessary for using use the software. On the other hand, you are not allowed to use the patent without the software because the patent clause only refers to the use of that specific open source software licensed by the corresponding open source license.
- Summarized, one has to consider that the granting open source licenses automatically and implicitly enforce you to grant all the rights which are necessary to use the software legally. Open source contributors and distributors should know that[112].
- With respect to the revoking licenses, one has to consider that their patent clauses contain a negative conditions which may be read as interdictions. The OSLiC will integrate these conditions into specific 'prohibits'-sections of its to-do lists.
- Finally one should mention that in some cases, the form of the revocation

[111] Sometimes, this problem of willingly or unwillingly violated third party patents is seen as a weakness of open source software. But that is not true. It is a weakness of every software. Even a commercial licensor (developer) has only the right to license the use of those patents he really owns or he has 'bought' for relicensing them. Moreover, also commercial licensors can willingly or unwillingly violate patents of other persons.

[112] Again: It might be debatable wether this is also valid for the distributors which do not contribute anything to the development. That's a legal discussion the OSLiC do no wish to participate in. From the viewpoint of an open source user who only wants to have one reliable and secure way to use open sopurce software compliantly, one should perhaps assume that there is no difference.

used by the revoking license refers to the use of the software, in other cases to the use of the patents. But nevertheless, one can reason that – from the pragmatic viewpoint of a benevolent open source software user – also this second case of patent revocation implictly terminates the right to use the software: If the use of a patent is necessary to use a piece of software legally, one is not allowed to use the software without having the right to use the patent, too; and if the use of the patent is not necessary for using the software, then the patent is not covered by the patent clause. So, in any case, this kind of patent clauses seems to terminate the right to use / to distribute and/or to modify the software. Hence, single users as well as companies or organizations should also respect such patent clauses if they want to be sure to use open source software compliantly.

The OSLiC wants to support its readers not only to act according to the licenses in general, but also according to its patent clause. Thus, we now briefly cite and summarize the meaning of particular patent clauses:

### 3.1.1 ApL statements concerning patents

Titled by the headline 'Grant of Patent License', the Apache License 2.0 contains a specific patent clause being comprised of two very long and condensed sentences[113]. Outside of this patent clause, the word *patent* is only used once again – for requiring that one '[...] must retain, in the (sources) [...] all [...] patent [...] notices [...]'[114].

The one core message of the ApL patent clause is the statement that '[...] each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable [...] patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work [...]'[115].

The second core message of the ApL patent clause is the statement that 'if You institute patent litigation against any entity [...] alleging that the Work [...] constitutes [...] patent infringement, then any patent licenses granted to You [...] shall terminate [...]'[116].

The third message of the ApL patent clause is the statement, that the '[...] license applies only to those patent claims licensable by such Contributor that

[113] cf. *Open Source Initiative*: APL-2.0, 2004, wp. §3.

[114] cf. id., l.c., wp. §4.3.

[115] cf. id., l.c., wp. §3. 'Contributor', 'Work' and 'You' are defined §1: *Contributor* refers to the original licensor and to all others whose contributions have been incorporated into the Work. The *Work* denotes the result of the development process regardless of its form. *You* denote the licensees..

[116] cf. id., l.c., wp. §3.

are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted'[117].

Thus, the ApL is - as we are using to say in this chapter - a granting and a revoking license: At first you are granted to use all patents of all contributors which are necessary to use the software legally. But if you – with respect to the software – install any litigation concerning an infringement of patents, then the rights granted to you are revoked.

### 3.1.2 EPL statements concerning patents [tbd]

### 3.1.3 EUPL statements concerning patents [tbd]

### 3.1.4 GPL statements concerning patents [tbd]

### 3.1.5 LGPL statements concerning patents [tbd]

### 3.1.6 MPL statements concerning patents [tbd]

### 3.1.7 MS-PL statements concerning patents

First, the MS-PL contains a statement, by which '[...] each contributor grants (the software users) a non-exclusive, worldwide, royalty-free license under its licensed patents to make, have made, use, sell, offer for sale, import, and/or otherwise dispose of its contribution in the software or derivative works of the contribution in the software'[118]. Second, the MS-PL says that 'if you bring a patent claim against any contributor[...] your patent license from such contributor to the software ends automatically'[119].

Thus, the MS-PL is - as we are using to say in this chapter - a granting and a revoking license: At first you are granted to use all patents of all contributors which are necessary to use the software legally. But if you – with respect to the software – install any litigation concerning an infringement of patents, then the rights granted to you are revoked.

[117] cf. *Open Source Initiative*: APL-2.0, 2004, wp. §3.
[118] cf. *Open Source Initiative*: MS-PL, 2013, wp. §2.B.
[119] cf. id., l.c., wp. §3.B.

### 3.1.8 PGL statements concerning patents [tbd]

### 3.1.9 PHP statements concerning patents [tbd]

## 3.2 Excursion: What is a 'Derivative Work' - the basic idea of open source [tbd]

*We will shortly discuss existing attempts to define the derivated works of technical aspects, like dynamical or statical linking or not. We will prove that linking can not deliver a definite criteria: 1) modules are only unzipped libraries. 2) you can distribute software as modules added by a script, which statically(sic!) links all modules before executing the program. 3) The criteria of pipe-communication is good, but not sufficient. 4) All these attempts do not match the constituting features of script languages. Therefore we will follow Moglen(?) and will argue from the viewpoint of a developer: it is only a question of a function, method or anything else which calls (jumps into) a piece of code which has been licensed by a license protecting on-top-developments and you have a derivated work.*

...

## 3.3 Excursion: The problem of license compatibility [tbd]

*Here we discuss the often neglected or only loosely touched problem of combining differently licensed software. We will hint to the Exclusion-List of the Free software foundation; we will hint to the Eclipse / GPL-plugin problem; we will mention the recent discussion whether the kernel requires to license the complete Android as GPL; and finally we will discuss the just now published, short analysis of Jaeger and Metzger presenting a combining matrix which seems to fall into their lap. We ourselves will argue that the question can simply be answered: only if you embed two libraries which both are licensed by an on-top-development protecting license and if these both licenses require the licensing of the derivated work by different licenses then you have a problem. In all other cases which we will describe there is no problem.*

...

## 3.4 Excursion: open source software and money [tbd]

*Here we will shortly discuss ways in which money and Open Source is no problem.*

...

# 4 Open Source Use Cases: Concept and Taxonomy

> *This chapter establishes our concept of* open source use cases *as a classification system for to-do lists. The conditions of a specific license, in the context of a particular* open source use case*, will be fulfilled by following the corresponding to-do list. Additionally this chapter introduces a taxonomy for these* open source use cases*. Later on, this taxonomy will organize the* Open Source Use Case Finder.

After all these introductory remarks, we can summarize our idea. We know that the right to use open source software depends on the tasks required by the open source licenses. As opposed to commercial licenses, you can not buy the right to use a piece of open source software using money. It is embedded into the *Open Source Definition* that the right to use the software may not be sold. The OSD states firstly that an open source license may '[...] not restrict any party from selling or giving away the software as a component of (any) aggregate software distribution', and adds secondly in the same context that an open source license '[...] shall not require a royalty or other fee for such sale'[120].

However, it would be wrong to conclude that you are automatically allowed to use open source software without any service in return: generally you have to do something to gain the right to use the software. In other words: open source software is covered by the idea of 'paying by doing'. Accordingly, open source licenses describe specific circumstances under which the user must execute some tasks in order to be compliant with the licenses. So, if we want to offer to-do lists for fulfilling license conditions, we must consider these tasks and circumstances.

In practice, such circumstances are not linear and simple. They contain combinations of (sometimes context sensitive) conditions which can be grouped into classes of tokens. Such a class of tokens might denote a feature of the software itself – such as being an application or a library. Or it can refer to the circumstances of using the software, such as 'using the software only for yourself' or 'distributing the software also to third parties'.

At the end, we want to determine a set of specific OSUCs – the *open source use cases*. And we want to deliver for each of these OSUCs and for each of the considered open source licenses one list of actions which fulfills the license in that context[121].

Such an *open source use case* shall be considered as a set of tokens describing the

[120] cf. *Open Source Initiative*: The Open Source Definition, 2012, wp. §1.

[121] Fortunately, sometimes one task list fulfills the conditions of more than one use case – a welcome reduction of complexity

circumstances of a specific usage. Hence, to begin, we must specify the relevant classes of tokens, before we can determine the valid combinations of these tokens – our *open source use cases*. Finally, based on the tokens, we generate a taxonomy in form of a tree. This tree will become the base of the *Open Source Use Case Finder* which will be offered by the next chapter, and which leads you to your specific OSUC by evaluating just a few questions and answers.

There are only a handful of tokens which are relevant to the circumstances of open source software licenses:

- The **type of the open source software**: On the one hand, there are code snippets, modules, libraries and plugins, and on the other hand, autonomous applications, programs and servers. We'll coin the word 'snimolis' for the first set, and 'proapses' for the second. This is necessary, as we are not only talking about libraries and applications in the everyday sense, but rather in the broadest sense[122]. More specifically, we will ask you, whether the open source software, you want to use, is an includable code snippet, a linkable module or library, or a loadable plugin, or whether it is an autonomous application or server which can be executed or processed. In the first case, the answer should be 'it is a snimoli', in the second 'it is a proapse'.
- The **state of the open source software**: It might be used, as one has got it. Or it can be modified, before being used. More specifically, we will ask you, whether you want to leave the open source software as you have got it, or whether you want to modify it before using and/or distributing it to 3rd parties. In the first case, the answer should be 'unmodified', in the second 'modified'.
- The **usage context of the open source software**: On the one hand you might use the received open source software as a readily prepared application. On the other hand you might embed the received open source into a larger application as one of its components. More specifically, we will ask you, whether you are using the open source software as an autonomous piece of software, or whether you are using it as an embedded part of a larger, more complex piece of software. In the first case, the answer should be 'independent', in the second 'embedded'.
- The **recipient of the open source software**: Sometimes you might wish to use the received open source software only for yourself. In other cases

[122] Of course, our newly introduced concepts 'snimoli' and 'proapse' are not absolutely one of the most elegant words. So, initially we tried to talk about 'applications' and 'libraries', although in our context these words should denote more, than they traditionally do. But we couldn't minimize the irritations of our interlocutors. Too often we had to amend that we were not only talking about applications and libraries in the strict sense of the words. Finally we decided to find our own words – and to stay open for better proposals ;-)

you might intend to hand over the software (also) to other people. More specifically, we will ask you, whether you are going to use the open source software only for yourself, or whether you plan to (re)distribute it (also) to third parties. In the first case, the answer should be '4yourself', in the second '4others'.

- The **mode of combination**: In this case, we will ask you, whether you are going to combine or to embed the open source software with other software components by linking them statically or dynamically, or by textually including (parts of) the open source software into your larger product. In the first case, the answer should be 'statically linked', in the second 'dynamically linked', in the third 'textually included'

From a more programmatic point-of-view, we can summarize these tokens as follows:

- `type::snimoli` *or* `type::proapse`
- `state::unmodified` *or* `state::modified`
- `context::independent` *or* `context::embedded`
- `recipient::4yourself` *or* `recipient::4others`
- `mode::statically-linked` *or* `mode::dynamically-linked` *or* `mode::textually-included`

We already defined an open source use case as a combination of these tokens. If we simply combine all these tokens of all these classes with all the tokens of the other classes[123], we get 2*2*2*2*3 = 48 sets of tokens – or 48 *open source use cases*. Fortunately, some of the generated sets are invalid from an empirical or logical view, and some of these sets are context sensitive:

1. It would be unreasonable to ask you whether you are going to combine the received software with other software components by linking them statically or dynamically, or by including it textually into a larger unit, if you already have answered that the received open source software is a *proapse* or that it shall be used *independently*: A readily prepared application or server can't be linked to another application or server which also contains a `main`-function. And using a *proapse* or *snimoli independently* includes that it is used *not in combination* with other units.
2. If you already have specified that the used open source software is a *proapse* – an autonomous program, an application, or a server – then your answer includes that the software is used independently and is not embedded with other components into a larger unit. But if you have specified that the used

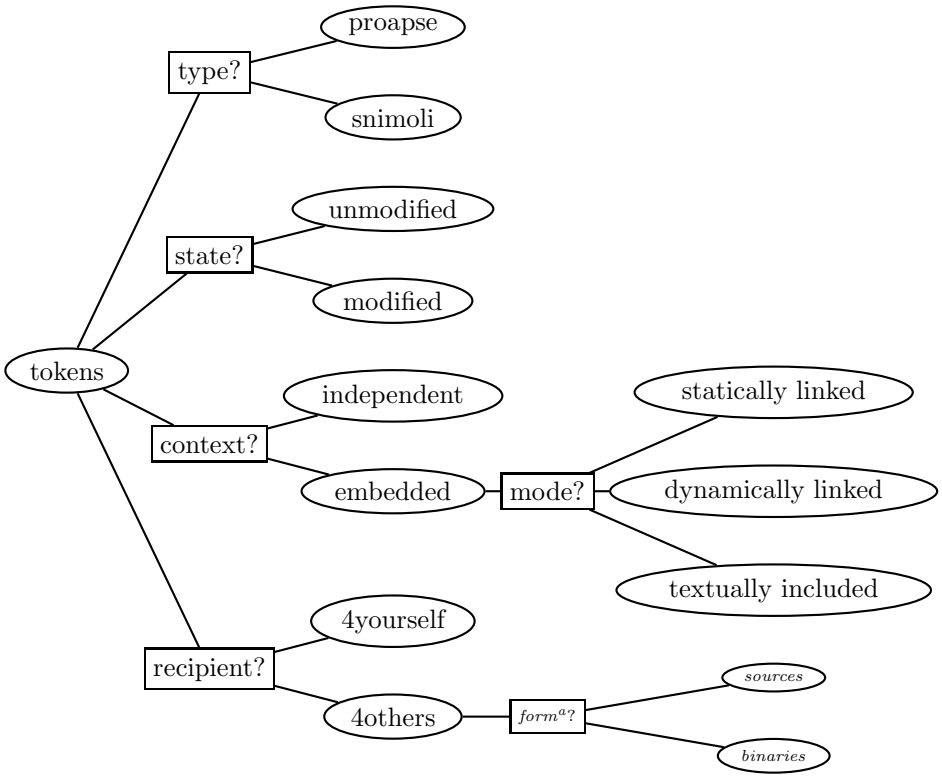
[123] in the sense of the cross product TYPE × STATE × CONTEXT × RECIPIENT × MODE

open source software is a *snimoli* – a snippet of code, a module, a plugin, or a library – then it can indeed be used as an embedded component of a constructed larger application or server, or it can be used independently in case you 'only' re-distribute it to 3rd. parties.

3. If you already have specified that the used open source software is a *snimoli* – a snippet of code, a module, a plugin, or a library – and that this *snimoli* shall be used only by yourself (not distributed to other 3rd. parties) then your answer must also imply that this *snimoli* is used in combination, as an embedded part of a larger unit. A library can not be used autonomously, without using it as a component of another application. In this case, it would simply sit on the disk and would do nothing more than occupying space.

Does this sound complex? We thought so, too. We spent much time explaining these constraints to ourselves, and only when we had transposed all the combinations and rules into a tree, the situation became clearer. The following diagrams shall summarize this way of clarification:

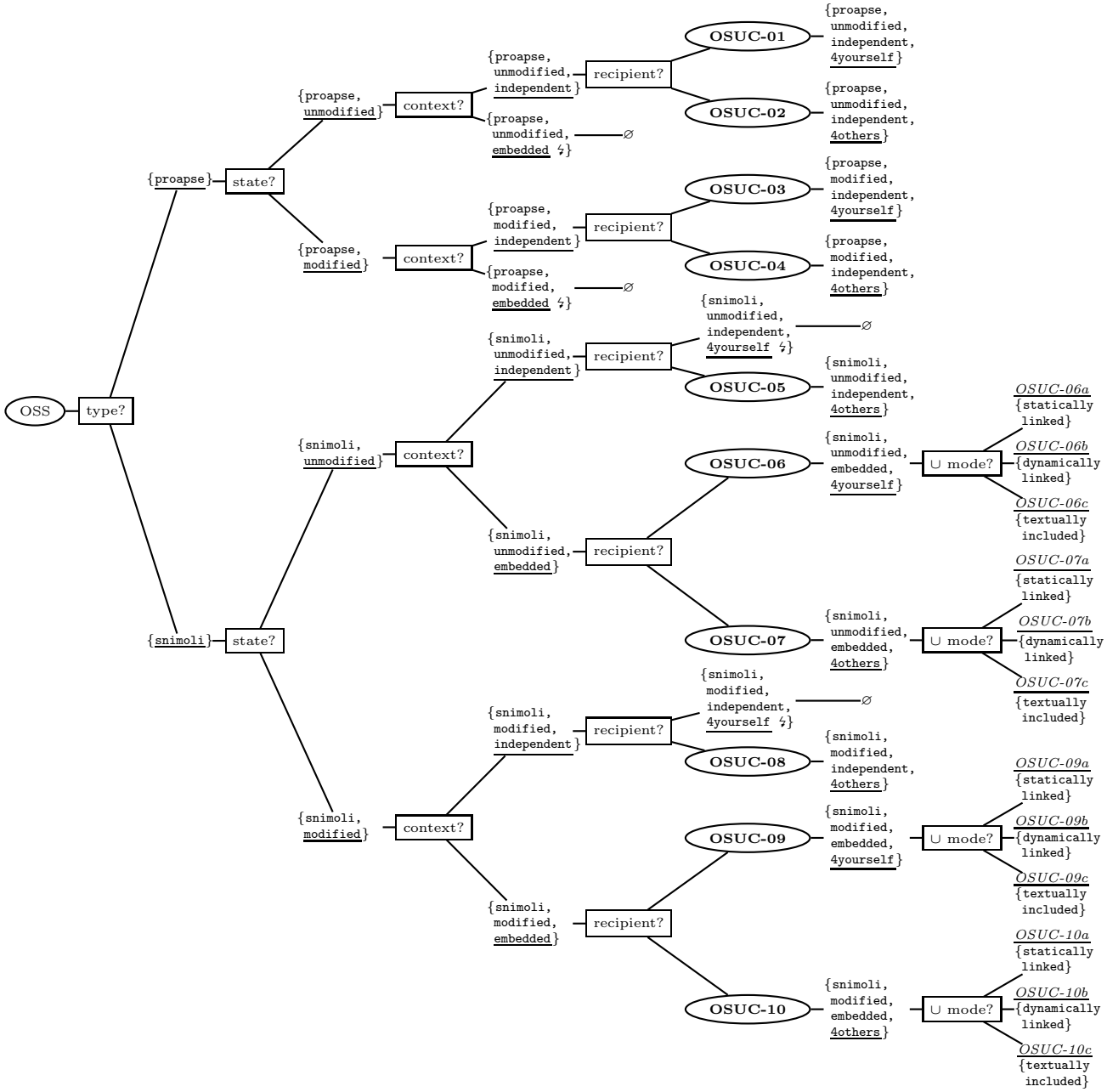
## 4.1 Overview of the OSUC classes and tokens




[a)] For differentiating between distributing sources and binaries → OSLiC, p. 45

## 4.2 The OSUC taxonomy

This is one of the possible trees 'collecting' the tokens and offering the *open source use cases* as their leafs[124]:




[124] Each of the invalid use cases (= sets of tokens) [for details s. p. 42] is marked by an ↯ and leads to an empty set (= ∅): A proapse can not be embedded with another software unit, also containing a main-function. Using a software library only for yourself and independent (not in combination with larger software unit), is like having an unused heap of bytes on your disc.

## 4.3 About a suppressed degree of complexity

Many licenses also draw a distinction between distributing the software as sources and distributing them as binaries. This aspect is not covered by the OSLiC taxonomy. Thus, for being truly complete, all the branches of the txonomy referring to the token *4others* should have been split by tokens like *distributing sources* and *distributing binaries*. But this would have made the taxonomy unusable. So, we suppressed these criteria.

But – of course – we do not want to reduce the reality inadequately; we want to solve the problem in a suitable manner. Therefore, we have implicitly split all relevant use cases by writing two to-do lists for them, one concerning the *distribution of sources* and *distribution of binaries*. Please select the adequat to-do list based on its title.

# 5 Open Source Use Cases: Find the License Fulfilling To-do Lists

*This chapter offers the* Open Source Use Case Finder*: First, it presents a form to gather the specifying information. Second, it offers a tree which can easily be transversed by the gathered information. And finally it contains the list of* open source use cases*. Each leaf of the tree leads to one* open source use case *which itself then refers to the specific license fulfilling to-do lists.*

## 5.1 A standard form for gathering the relevant information

| Class | Questions | Answers |
|---|---|---|
| Type | *Is the open source software you want to use a software library in the broadest sense (an includable code snippet, a linkable module or library, or a loadable plugin) [=snimoli], or is it an autonomous program, application or server which can be executed or processed [=proapse]?* | ☐ proapse<br>☐ snimoli |
| State | *Do you want to leave your open source software as you have got it, or do you want to modify it before using and/or distributing it to 3rd parties?* | ☐ unmodified<br>☐ modified |
| Context | *Are you using your open source software as an autonomous piece of software [=independent], or are you using it as an embedded part or component of a larger, more complex piece of software [=embedded]?* | ☐ independent<br>☐ embedded |
| Recipient | *Are you going to use the received open source software only for yourself [=4yourself], or do you plan to (re)distribute it (also) to third parties [=4others]?* | ☐ 4yourself<br>☐ 4others |
| Form | *If you plan to (re)distribute an open source based work [=4others], do you want to distribute only the binaries or (also) the source code?* | ☐ only binaries<br>☐ (also) sources |
| Mode | *Are you going to combine the received open source software with other software components by linking all together statically, by linking them dynamically, or by textually including (parts of) the open source software into your larger unit?* | ☐ statically linked<br>☐ dynamically linked<br>☐ textually included |

As discussed earlier, there are of course some invalid combinations[125]. Here are some extra explanations about each class:

**Type:** A piece of (open source) software shall be viewed as a program, an application, or a server, if you can start its binary form with your normal program launcher, or (in case of a text file which still must be interpreted by an interpreter like php, perl, bash etc.) if you can start an interpreter taking the file as one of its arguments.

**State:** You modify open source software if you expand, reduce or modify at least one of the received software files, and – in case of dealing with binary object code – if you (re)compile and (re)link the modified software to a new binary file. If you only modify configuration files, you do not modify the open source software.

**Context:** You use open source software embedded into a larger unit, if one of your files of the larger unit contains a verbatim or modified copy (i.e. a snippet) of the received open source software, or if the larger unit contains an include statement referring to a file of the received open source software, or if your development environment contains a compiler or linker directive referring to the received open source software.

**Recipient:** You use the received open source software only for yourself, if you as person do not pass it to other persons, or if you – as a member of a specific development group – pass it only to the other members of your development group. But if you store open source software on any device such as a mobile phone, an USB stick, etc. or if you attach it to any transport medium like email etc. and if you then sell, give away, or simply send this device or transport medium to anyone (other than a direct member of your development group) then you indeed handover the open source software to third parties[126].

**Form:** Often it is up to you to decide wether you want to distribute the source code, too. But if you do so, you have to respect special conditions[127].

**Mode:** The definition follows the corresponding standard terms of the software development.

---

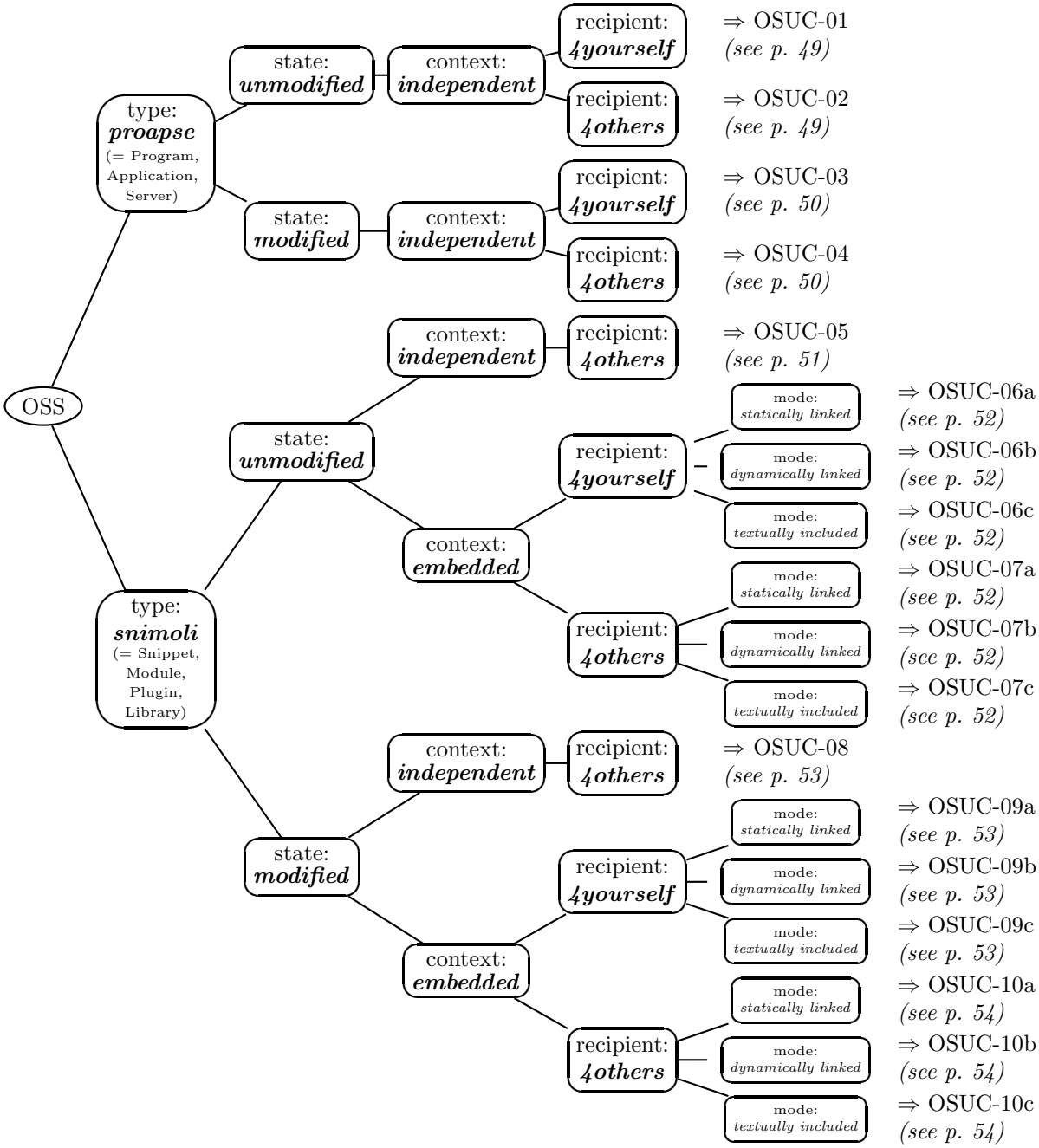
[125] type::proapse excludes state::embedded; recipient::4yourself excludes the combination with state::independent and type::snimoli; any value of class 'mode' implies state::embedded [for details see page 42]. If you have gathered one of these invalid combinations, please check the corresponding explanations

[126] Please remember that – at least in Germany – there are opinions that even handing over software to another legal entity or department of the same company is also a kind of distribution. It is always safest to take the broadest possible meaning of distributing or handing over.

[127] For details concerning a necessary refinement of the open source use case taxonomy, please see → OSLiC, p. 45

## 5.2 The taxonomic Open Source Use Case Finder

Now, after having gathered the necessary information, determine your specific open source use case by traversing the following tree and its corresponding branches:




Please keep in mind, that for reducing the complexity of this general taxonomy, we suppressed the differentiation between distributing binaries and distributing

sources[128]. Nevertheless, the final to-do lists respect this difference whereever it is necessary. It is up to you to select the correct to-do list on the basis of its titles.

## 5.3 The open source use cases and its to-do list references

On the following pages, each **O**pen **S**ource **U**se **C**ase is textually specified one more time and added by a list of page numbers. Each of these pages hints to that license-specific to-do list whose items together offer a processable way for acting according to the license under the circumstances of the described **O**pen **S**ource **U**se **C**ase.

**OSUC-01:** Only for yourself, you are using an unmodified open source program, application, or server – just as you received it. You are not going to combine it with other components in the sense of software development (= *proapse, unmodified, independent, 4yourself*). To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 56 for the **ApL** *(= Apache License)*
- p. 65 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 74 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 78 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-02:** Just as you received it, you are going to distribute an unmodified open source program, application, or server to 3rd parties. In this act of distribution, you do not combine this program, application, or server with other software components in the sense of software development (= *proapse, unmodified, independent, 4others*)[129]. To see the *specific, license fulfilling to-do lists* jump to the following pages:

[128] For details concerning a necessary refinement of the taxonomy → OSLiC, p. 45
[129] For differentiating between distributing sources and binaries → OSLiC, p. 45

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 57 for the **ApL** *(= Apache License)*
- p. 66 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 75 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 79 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-03:** Only for yourself, you are modifying a received open source program, application, or server, before you are using it. But you do not combine it with other components in the sense of software development (= *proapse, modified, independent, 4yourself*). To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 56 for the **ApL** *(= Apache License)*
- p. 65 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 74 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 78 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-04:** You are going to modify a received open source program, application, or server, before you distribute it to 3rd parties. But you do not combine this modified program, application, or server with other software

components in the sense of software development (= *proapse, modified, independent, 4others*)[130]. To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 58 for the **ApL** *(= Apache License)*
- p. 67 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 75 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 79 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-05:** Just as you received it, you are going to distribute an unmodified open source library, code snippet, module, or plugin to 3rd parties. In this act of distribution, you do not combine this library, code snippet, module, or plugin with other software components in the sense of software development (= *snimoli, unmodified, independent, 4others*). To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 57 for the **ApL** *(= Apache License)*
- p. 66 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 75 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 79 for the **MS-PL** *(= Microsoft Public License)*

[130] For differentiating between distributing sources and binaries → OSLiC, p. 45

- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-06:** Only for yourself and just as you received it, you are going to combine an unmodified open source library, code snippet, module, or plugin into a larger software unit as one of its parts. (= *snimoli, unmodified, embedded, 4yourself*). To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 56 for the **ApL** *(= Apache License)*
- p. 65 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 74 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 78 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-07:** Just as you received it and before you will distribute it to 3rd parties together with the larger software unit, you combine an unmodified open source library, code snippet, module, or plugin into a larger software unit in the sense of software development (= *snimoli, unmodified, embedded, 4others*)[131]. To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 57 for the **ApL** *(= Apache License)*
- p. 66 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*

[131] For differentiating between distributing sources and binaries → OSLiC, p. 45

- p. 75 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 79 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-08:** Before you will distribute it, you are going to modify an open source library, code snippet, module, or plugin to 3rd parties, but you do not combine it with other software components in the sense of software development (= *snimoli, modified, independent, 4others*)[132]. To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 60 for the **ApL** *(= Apache License)*
- p. 68 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 76 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 82 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-09:** Only for yourself, you are going to modify an open source library, code snippet, module, or plugin, before you will combine it – in the sense of software development – into a larger software unit as one of its parts. (= *snimoli, modified, embedded, 4yourself*). To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 56 for the **ApL** *(= Apache License)*
- p. 65 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*

[132] For differentiating between distributing sources and binaries → OSLiC, p. 45

- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 74 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 78 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

**OSUC-10:** Before you will distribute it to 3rd parties, you are going to modify an open source library, code snippet, module, or plugin, which you then combine with other software components in the sense of software development (= *snimoli, modified, independent, 4others*)[133]. To see the *specific, license fulfilling to-do lists* jump to the following pages:

- p. 89 for the **AGPL** *(= Affero GNU Public License)*
- p. 62 for the **ApL** *(= Apache License)*
- p. 70 for the **BSD** License *(= Berkeley Software Distribution)*
- p. 86 for the **EPL** *(= Eclipse Public License)*
- p. 87 for the **EUPL** *(= European Public License)*
- p. 89 for the **GPL** *(= GNU Public License)*
- p. 88 for the **LGPL** *(= Lesser GNU Public License)*
- p. 76 for the **MIT** License *(= Massachusetts Institute of Technology)*
- p. 88 for **MPL** *(= Mozilla Public License)*
- p. 83 for the **MS-PL** *(= Microsoft Public License)*
- p. 84 for the **PGL** *(= Postgres License)*
- p. 85 for the **PHP** license

[133] For differentiating between distributing sources and binaries → OSLiC, p. 45

# 6 Open Source License Compliance: To-Do Lists

*With respect to the defined open source use cases, this chapter lists what one has to do for acting in accordance with the specific open source licenses*

## 6.1 Some general remarks on 'giving' someone a file

This chapter has to be started with some general hints being relevant for many to-do lists. Thus, for not repeating these remarks to often, we are starting with these general remarks and will later on refer to these remarks:

- On the one hand, sometimes you want to distribute a binary package containing open source software as components or being open software as whole. Moreover, in some cases, you probably want to distribute it on a medium which doesn't allow the user, to see the package files directly – some mobile devices don't give their users the full access to all stored files. On the other hand, open source licenses often require 'to give' someone copies of text files, like the license itself, copyright notes, specific notice files or anything else. The safe interpretation of 'giving someone a text' means that the receiver must be able to read it[134]. Hence, on systems which offer a file browser and a suitable reader, it is sufficient, to put these file onto the files system. On the other systems, you *must* present the content of the files by your application – for example in a specific copyright dialog[135]. The OSLiC does not want to refine the taxonomies down to the level of operating systems. So, it is up to the reader to transfer these conditions into the to-do lists.
- Sometimes a product which uses and distributes open source software tries to fulfill the requirement 'to give the recipients the license etc.' by presenting links to general versions of these licensing files hosted somewhere on the internet. But be aware: Although it is a good tradition – especially if you link to the homepages of the projects for being totally transparent – it is not sufficient to offer only the links. If you are required by the open source licenses to handover something to your users, *you* must do it. It is not safe to delegate the task to anyone hoping that he will offer the files all the time

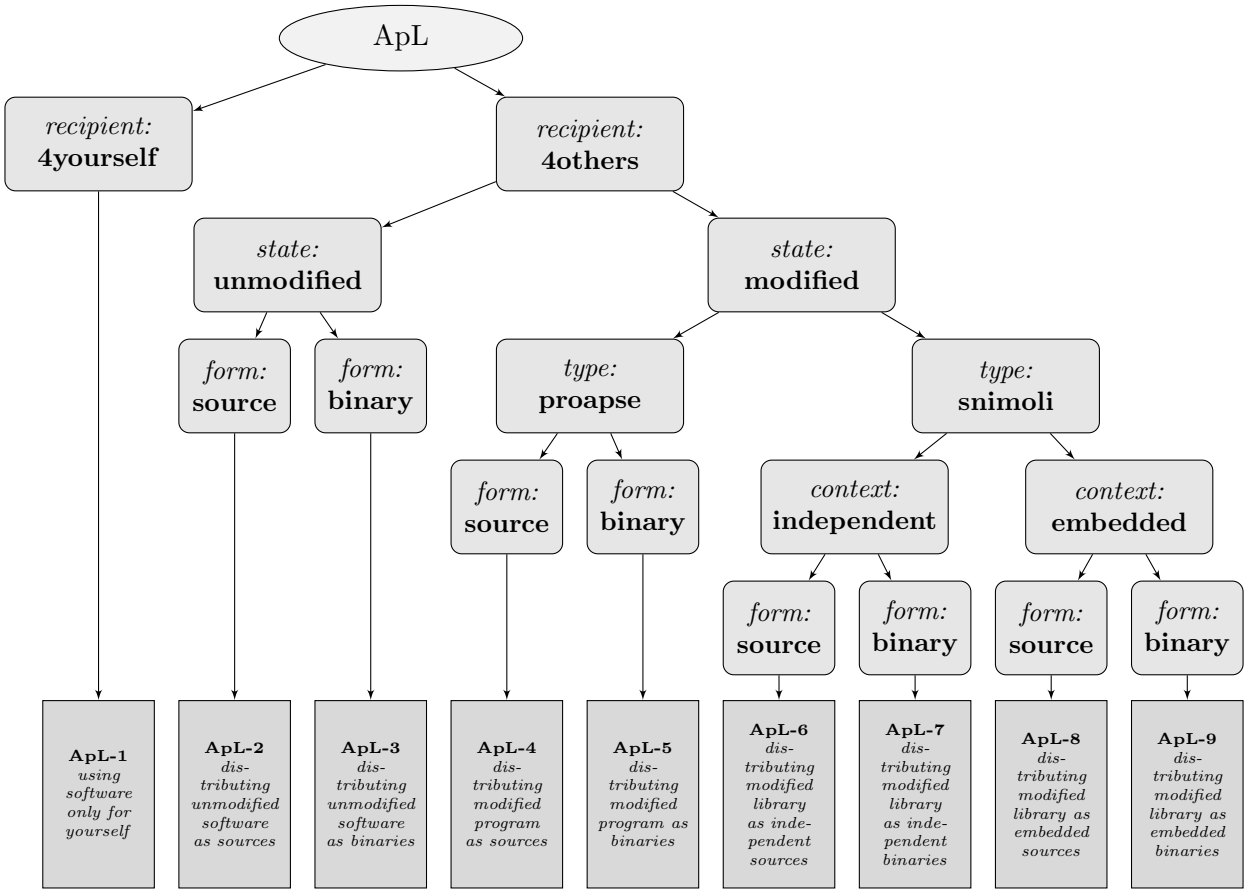
[134] To give someone anything he can't touch, feel, see etc., is like not giving him the object ;-)

[135] Additionally, in the open source community, it is a good tradition, to present these reference data voluntarily.

your product is distributed[136]. But even it would be save, the point is: you have to fulfill the license, no one else.

## 6.2 Apache licensed software

Officially, only the Apache License, Version 2.0 is an approved open source license[137]. Explicitly, it 'only' focuses on the 'redistribution'[138]. So, you can also use the folloing simplified Apache specific open source use case finder[139]:




### 6.2.1 ApL-1: Using the software only for yourself

**means** that you are going to use a received Apache licensed software only for yourself and that you do not handover it to any 3rd party in any sense.

[136] Moreover, the advantage of doing the job oneself is that one has not to struggle with uncommunicated implicite modfications of the link targets.

[137] For details → OSLiC, pp. 23

[138] cf. *Open Source Initiative*: The Open Source Licenses, alphabetically sorted, 2012, wp. §4.

[139] For details of the general OSUC finder → OSLiC, pp. 41 and 44

**covers** OSUC-01, OSUC-03, OSUC-06, and OSUC-09[140]

**requires** no tasks in order to fulfill the conditions of the Apache 2.0 license with respect to this use case:

- You are allowed to use any kind of Apache software in any sense and in any context without any obligations premised you do not handover the software to 3rd parties.

**prohibits** nothing explicitly.

### 6.2.2 ApL-2: Passing the unmodified software as source code

**means** that you are going to distribute an unmodified version of the received Apache software to 3rd parties in form of a set of source code files or an integrated source code package[141]

**covers** OSUC-02, OSUC-05, OSUC-07[142]

**requires** the following tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into the software package, add it[143].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them.
- [**mandatory:**] Ensure that a *notice text file*[144] is retained in your package in the form you have received it.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license.

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

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[140] For details see pp. 49 - 53

[141] In this case it doesn't matter whether you distribute a program, an application, a server, a snippet, a module, a library, or a plugin as an independent or an embedded unit

[142] For details see pp. 49 - 52

[143] For implementing the handover of files correctly → OSLiC 55

[144] The Apache license seems willingly to be a bit ambigue: it uses the term '"Notice" text file'. In its strict sense, the term refers to a file named 'NOTICE.[txt|pdf|...]'. In a weaker sense, it may denote any (text) file containing (licensing) notices. For being sure to act according to this requirement you should also read this term in the broader sense if there is no text file name 'NOTICE'

### 6.2.3 ApL-3: Passing the unmodified software as binaries

**means** that you are going to distribute an unmodified version of the received Apache software to 3rd parties in form of a set of binary files or an integrated binary package[145]

**covers** OSUC-02, OSUC-05, OSUC-07[146]

**requires** the following tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into your binary package, add it[147].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them. If you compile the binary from the sources, ensure that all the licensing elements are also incorporated into the package.
- [**mandatory:**] Ensure that the *notice text file* is retained or integrated into your binary package in the form you have initially received it.
- [**mandatory:**] Ensure that the *notice text file* is also reproduced if and whereever such third-party notices normally appear – especially, if you are distributing an unmodified Apache licensed library as embedded component of your own work which displays its own copyright notice.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license – especially as subsection of your own copyright notice.

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

### 6.2.4 ApL-4: Passing a modified program as source code

**means** that you are going to distribute a modified version of the received Apache licensed program, application, or server (proapse) to 3rd parties in form of a set of source code files or an integrated source code package.

**covers** OSUC-04[148]

[145] In this case it doesn't matter whether you distribute a program, an application, a server, a snippet, a module, a library, or a plugin as an independent or an embedded unit

[146] For details see pp. 49 - 52

[147] For implementing the handover of files correctly → OSLiC 55

[148] For details see pp. 50

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into the source code package, add it[149].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them.
- [**mandatory:**] Ensure that the *notice text file* contains at least all the information of that *notice text file* you have received.
- [**mandatory:**] Ensure that the *notice text file* is also reproduced if and whereever such third-party notices normally appear. If the program already displays a copyright dialog, update it in an appropriate manner.
- [**voluntary:**] Inside of the source code, mark all your modifications thoroughly. Generate a *notice text file*, if it still does not exist. Expand (sic!) the *notice text file* by a description of your modifications.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license.

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

### 6.2.5 ApL-5: Passing a modified program as binary

**means** that you are going to distribute a modified version of the received Apache licensed program, application, or server (proapse) to 3rd parties in form of a set of binary files or an integrated binary package.

**covers** OSUC-04[150]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into your binary package, add it[151].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them. If you compile the binary from

[149] For implementing the handover of files correctly → OSLiC 55
[150] For details see pp. 50
[151] For implementing the handover of files correctly → OSLiC 55

the sources, ensure that all the licensing elements are also incorporated into the package.

- [**mandatory:**] Ensure that the *notice text file* contains at least all the information of that *notice text file* you have received.
- [**mandatory:**] Ensure that the *notice text file* is also reproduced if and whereever such third-party notices normally appear. If the program already displays a copyright dialog, update it in an appropriate manner.
- [**voluntary:**] Inside of the source code, mark all your modifications thoroughly. Generate a *notice text file*, if it still does not exist. Expand (sic!) the *notice text file* by a description of your modifications.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license – especially as a subsection of your own copyright notice.

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

### 6.2.6 ApL-6: Passing a modified library as independent source code

**means** that you are going to distribute a modified version of the received Apache licensed code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a set of source code files or an integrated source code package, but without embedding it into another larger software unit.

**covers** OSUC-08[152]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into the software package, add it[153].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them.
- [**mandatory:**] Ensure that the *notice text file* contains at least all the information of that *notice text file* you have received.

[152] For details see pp. 53
[153] For implementing the handover of files correctly → OSLiC 55

- [**voluntary:**] Inside of the source code, mark all your modifications thoroughly. Generate a *notice text file*, if it still does not exist. Expand (sic!) the *notice text file* by a description of your modifications.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license.

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

### 6.2.7 ApL-7: Passing a modified library as independent binary

**means** that you are going to distribute a modified version of the received Appache licensed code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a set of binary files or an integrated binary package but without embedding it into another larger software unit.

**covers** OSUC-08[154]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into your binary package, add it[155].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them. If you compile the binary from the sources, ensure that all the licensing elements are also incorporated into the package.
- [**mandatory:**] Ensure that the *notice text file* contains at least all the information of that *notice text file* you have received.
- [**voluntary:**] Inside of the source code, mark all your modifications thoroughly. Generate a *notice text file*, if it still does not exist. Expand (sic!) the *notice text file* by a description of your modifications.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license – especially as a subsection of your own copyright notice.

[154] For details see pp. 53
[155] For implementing the handover of files correctly → OSLiC 55

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

### 6.2.8 ApL-8: Passing a modified library as embedded source code

**means** that you are going to distribute a modified version of the received Apache licensed code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a set of source code files or an integrated source code package together with another larger software unit which contains this code snippet, module, library, or plugin as an embedded component.

**covers** OSUC-10[156]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into the software package, add it[157].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them.
- [**mandatory:**] Ensure that the *notice text file* contains at least all the information of that *notice text file* you have received.
- [**mandatory:**] Ensure that the *notice text file* is also reproduced if and whereever such third-party notices normally appear. If your overarching program displays an own copyright dialog, insert these information.
- [**voluntary:**] Inside of the source code, mark all your modifications thoroughly. Generate a *notice text file*, if it still does not exist. Expand (sic!) the *notice text file* by a description of your modifications.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license.
- [**voluntary:**] Arrange your source code distribution so that the integrated Apache license and the *notice text file* clearly refer only to the embedded library and do not disturb the licensing of your own overarching work. It's a good tradition to keep the embedded components like libraries, modules, snippets, or plugins in specific directory which contains also all additional licensing elements.

[156] For details see pp. 54

[157] For implementing the handover of files correctly → OSLiC 55

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

### 6.2.9 ApL-9: Passing a modified library as embedded binary

**means** that you are going to distribute a modified version of the received Apache licensed code snippet, module, library, or plugin to 3rd parties in form of a set of binary files or an integrated binary package together with another larger software unit which contains this code snippet, module, library, or plugin as an embedded component.

**covers** OSUC-10[158]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Give the recipient a copy of the Apache 2.0 license. If it is still not incorporated into your binary package, add it[159].
- [**mandatory:**] Ensure that the licensing elements – esp. the specific copyright notice of the original author(s) – are retained in your package in the form you have received them. If you compile the binary from the sources, ensure that all the licensing elements are also incorporated into the package.
- [**mandatory:**] Ensure that the *notice text file* contains at least all the information of that *notice text file* you have received.
- [**mandatory:**] Ensure that the *notice text file* is also reproduced if and whereever such third-party notices normally appear. If your overarching program displays an own copyright dialog, insert these information.
- [**voluntary:**] Inside of the source code, mark all your modifications thoroughly. Generate a *notice text file*, if it still does not exist. Expand (sic!) the *notice text file* by a description of your modifications.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also reproduce the content of the *notice text file*, a hint to the software name, a link to its homepage, and a link to the Apache 2.0 license – especially as subsection of your own copyright notice.
- [**voluntary:**] Arrange your binary distribution so that the integrated Apache license and the *notice text file* clearly refer only to the embedded library and do not disturb the licensing of your own overarching

[158] For details see pp. 54

[159] For implementing the handover of files correctly → OSLiC 55

work. It's a good tradition to keep the librabries, modules, snippet, or plugins in specific directiers which contain also all licensing elements.

**prohibits** to institute any patent litigation against anyone alleging that the software constitutes patent infringement.

### 6.2.10 Discussions and Explanations [tbd]

## 6.3 BSD licensed software

As an approved open source license, the BSD license exists in two versions[160]. The latest release is the *BSD 2-Clause license*[161], the elder release is the *BSD 3-Clause license*[162]. The very little differences between the two versions have to be respected exactly. Nevertheless, we could integrate the requirements into one to-do list per use case.

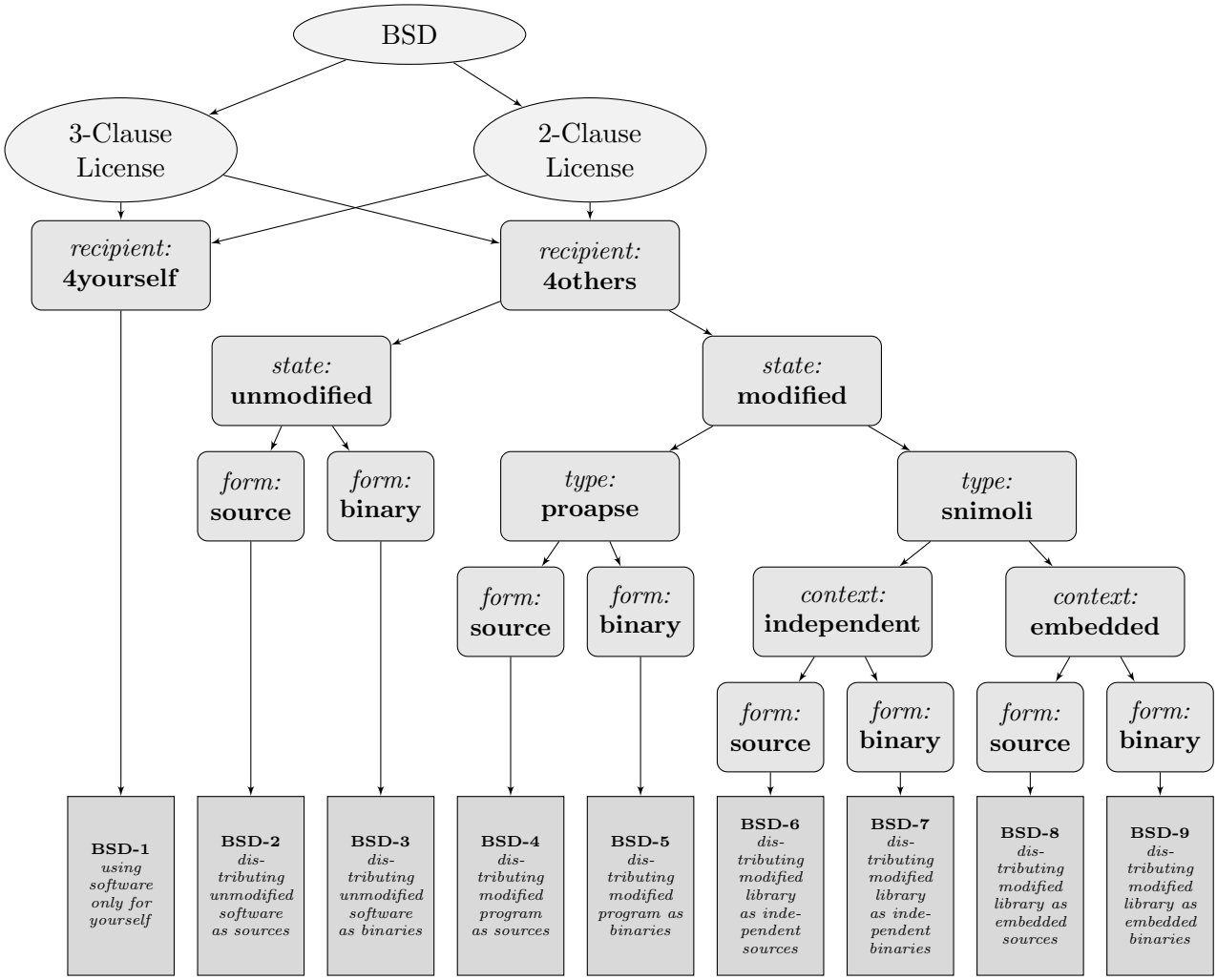
Explicitly, all BSD open source licenses 'only' focus on the (re-)distribution *open source use cases* which we have specified by our token *4others*. Conditions for the other use cases specified by the token *4yourself* can be derived[163]. Additionally the BSD licenses consider the form of the distribution, esp. whether the work is distributed as a (set of) source code file(s) or as a (set of) the binary file(s). Use the following tree to find the BSD license fulfilling to-do lists.

[160] Following the OSI, there is another 'ancient' BSD license – containing a fourth clause known as advertising clause – which '(...) officially was rescinded by the Director of the Office of Technology Licensing of the University of California on July 22nd, 1999'. Cf. *Open Source Initiative*: The BSD 3-Clause License, 2012, wp. Because of that cancellation you can simply act according the *BSD 3-Clause license* if you have to fulfill the eldest BSD license.

[161] cf. *Open Source Initiative*: The BSD 2-Clause License, 2012, wp.

[162] cf. *Open Source Initiative*: The BSD 3-Clause License, 2012, wp.

[163] For details of the *open source use case tokens* see p. 41. For details of the *open source use cases* based on these token see p. 44




### 6.3.1 BSD-1: Using the software only for yourself

**means** that you are going to use a received BSD software only for yourself and that you do not handover it to any 3rd party in any sense.

**covers** OSUC-01, OSUC-03, OSUC-06, and OSUC-09[164]

**requires** no tasks in order to fulfill the conditions of the BSD license with respect to this use case:

- You are allowed to use any kind of BSD software in any sense and in any context without any obligations if you do not handover the software to 3rd parties.

**prohibits** nothing explicitly.

[164] For details see pp. 49 - 53

### 6.3.2 BSD-2: Passing the unmodified software as source code

**means** that you are going to distribute an unmodified version of the received BSD software to 3rd parties in form of a set of source code files or an integrated source code package[165]

**covers** OSUC-02, OSUC-05, OSUC-07[166]

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure that the licensing elements – esp. the BSD license text, the specific copyright notice of the original author(s), and the BSD disclaimer – are retained in your package in the form you have received them.
- [**voluntarily:**] Let the documentation of your distribution and/or your additional material also contain the original copyright notice, the BSD conditions, and the BSD disclaimer.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

- [**explicitly:**] Do not use the name of the licensing organization or the names of the licensing distributors to promote your own work

### 6.3.3 BSD-3: Passing the unmodified software as binary

**means** that you are going to distribute an unmodified version of the BSD received software to 3rd parties in form of a set of binary files or an integrated binary package[167]

**covers** OSUC-02, OSUC-05, OSUC-07[168]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that your distribution contains the original copyright notice, the BSD license, and the BSD disclaimer in the form you have received them. If you compile the binary file on the base of the source code package and if this compilation does not also generate and integrate the licensing files then create the copyright notice, the BSD conditions, and the BSD disclaimer according to the form of

[165] In this case it doesn't matter whether you distribute a program, an application, a server, a snippet, a module, a library, or a plugin as an independent or an embedded unit

[166] For details see pp. 49 - 52

[167] In this case it doesn't matter whether you distribute a program, an application, a server, a snippet, a module, a library, or a plugin as an independent or an embedded unit

[168] For details see pp. 49 - 52

the source code package and insert these files into your distribution manually[169].

- [**mandatory:**] Ensure that the documentation of your distribution and/or your additional material also contain the author specific copyright notice, the BSD conditions, and the BSD disclaimer.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

- [**explicitly:**] Do not use the name of the licensing organization or the names of the licensing distributors to promote your own work

### 6.3.4 BSD-4: Passing a modified program as source code

**means** that you are going to distribute a modified version of the received BSD program, application, or server (proapse) to 3rd parties in form of a set of source code files or an integrated source code package.

**covers** OSUC-04[170]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that the licensing elements – esp. the BSD license text, the specific copyright notice of the original author(s), and the BSD disclaimer – are retained in your package in the form you have received them.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also contain the original copyright notice, the BSD conditions, and the BSD disclaimer.
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the running program also state that the program is licensed under the BSD license. Because you are already modifying the program you can also add such a hint if the presented original copyright notice lacks such a statement.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

- [**explicitly:**] Do not use the name of the licensing organization or the names of the licensing distributors to promote your own work

[169] For implementing the handover of files correctly → OSLiC 55
[170] For details see pp. 50

### 6.3.5 BSD-5: Passing a modified program as binary

**means** that you are going to distribute a modified version of the received BSD program, application, or server (proapse) to 3rd parties in form of a set of binary files or an integrated binary package.

**covers** OSUC-04[171]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that your distribution contains the original copyright notice, the BSD license, and the BSD disclaimer in the form you have received them. If you compile the binary file on the base of the source code package and if this compilation does not also generate and integrate the licensing files then create the copyright notice, the BSD conditions, and the BSD disclaimer according to the form of the source code package and insert these files into your distribution manually[172].
- [**mandatory:**] Ensure that the documentation of your distribution and/or your additional material also contain the author specific copyright notice, the BSD conditions, and the BSD disclaimer.
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the running program also state that the program is licensed under the BSD license. Because you are already modifying the program you can also add such a hint if the presented original copyright notice lacks such a statement.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

- [**explicitly:**] Do not use the name of the licensing organization or the names of the licensing distributors to promote your own work

### 6.3.6 BSD-6: Passing a modified library as independent source code

**means** that you are going to distribute a modified version of the received BSD code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a set of source code files or an integrated source code package, but without embedding it into another larger software unit.

**covers** OSUC-08[173]

[171] For details see pp. 50
[172] For implementing the handover of files correctly → OSLiC 55
[173] For details see pp. 53

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that the licensing elements – esp. the BSD license text, the specific copyright notice of the original author(s), and the BSD disclaimer – are retained in your package in the form you have received them.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also contain the original copyright notice, the BSD conditions, and the BSD disclaimer.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

- [**explicitly:**] Do not use the name of the licensing organization or the names of the licensing distributors to promote your own work

### 6.3.7 BSD-7: Passing a modified library as independent binary

**means** that you are going to distribute a modified version of the received BSD code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a set of binary files or an integrated binary package but without embedding it into another larger software unit.

**covers** OSUC-08[174]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that your distribution contains the original copyright notice, the BSD license, and the BSD disclaimer in the form you have received them. If you compile the binary file on the base of the source code package and if this compilation does not also generate and integrate the licensing files, then create the copyright notice, the BSD conditions, and the BSD disclaimer according to the form of the source code package and insert these files into your distribution manually[175].
- [**mandatory:**] Ensure that the documentation of your distribution and/or your additional material also contain the author specific copyright notice, the BSD conditions, and the BSD disclaimer.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

[174] For details see pp. 53

[175] For implementing the handover of files correctly → OSLiC 55

- [**explicitly:**] Do not use the name of the licensing organization or the names of the licensing distributors to promote your own work

### 6.3.8 BSD-8: Passing a modified library as embedded source code

**means** that you are going to distribute a modified version of the received BSD code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a set of source code files or an integrated source code package together with another larger software unit which contains this code snippet, module, library, or plugin as an embedded component.

**covers** OSUC-10[176]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that the licensing elements – esp. the BSD license text, the specific copyright notice of the original author(s), and the BSD disclaimer – are retained in your package in the form you have received them.
- [**voluntary:**] Let the documentation of your distribution and/or your additional material also contain the original copyright notice, the BSD conditions, and the BSD disclaimer.
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the running program also state that it contains components licensed under the BSD license. Because you are embedding this snimoli into a larger software unit, you are developing this larger unit. Hence, you can also expand the copyright notice of this larger unit by such a hint to its BSD components.
- [**voluntary:**] Arrange your source code distribution so that the the licensing elements – esp. the BSD license text, the specific copyright notice of the original author(s), and the BSD disclaimer – clearly refer only to the embedded library and do not disturb the licensing of your own overarching work. It's a good tradition to keep the embedded components like libraries, modules, snippets, or plugins in specific directory which contains also all additional licensing elements.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

- [**explicitly:**] Do not use the name of the licensing organization or the names of the licensing distributors to promote your own work

[176] For details see pp. 54

### 6.3.9 BSD-9: Passing a modified library as embedded binary

**means** that you are going to distribute a modified version of the received BSD code snippet, module, library, or plugin to 3rd parties in form of a set of binary files or an integrated binary package together with another larger software unit which contains this code snippet, module, library, or plugin as an embedded component.

**covers** OSUC-10[177]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that your distribution contains the original copyright notice, the BSD license, and the BSD disclaimer in the form you have received them. If you compile the binary file on the base of the source code package and if this compilation does not also generate and integrate the licensing files, then create the copyright notice, the BSD conditions, and the BSD disclaimer according to the form of the source code package and insert these files into your distribution manually[178].
- [**mandatory:**] Ensure that the documentation of your distribution and/or your additional material also contain the author specific copyright notice, the BSD conditions, and the BSD disclaimer.
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the running program also state that it contains components licensed under the BSD license. Because you are embedding this snimoli into a larger software unit, you are developing this larger unit. Hence, you can also expand the copyright notice of this larger unit by such a hint to its BSD components.
- [**voluntary:**] Arrange your binary distribution so that the licensing elements – esp. the BSD license text, the specific copyright notice of the original author(s), and the BSD disclaimer – clearly refer only to the embedded library and do not disturb the licensing of your own overarching work. It's a good tradition to keep the librabries, modules, snippet, or plugins in specific directiers which contain also all licensing elements.

**prohibits** nothing explictly, if you are using the *BSD 2 Clause License*. But the *BSD 3 Clause License* prohibits the following doings in order to fulfill the license

- [**explicitly:**] Do not use the name of the licensing organization or the

[177] For details see pp. 54

[178] For implementing the handover of files correctly → OSLiC 55

names of the licensing distributors to promote your own work

### 6.3.10 Discussions and Explanations

The *BSD 2-Clause license* has a simple textual structure: In the beginning, it generally '(permits) [the] redistribution and [the] use in source and binary forms, with or without modification, [...]', if one fulfills the two rules of the license[179]. The first rule concerns the (re)distribution in form of source code, the second the (re)distribution of binary packages. Here are some explanations why we translated the rules into which sets of executable tasks:

- For the 'redistribution of source code' the license requires, that the package must ' [...] retain the above copyright notice, this list of conditions and the following disclaimer'[180]. Hence, you are not allowed, to modify any of the copyright notes which are already embedded in the received (source) files. And from a logical point of view, there must exist an explicit or implicit assertion that the software is licensed under the *BSD 2-Clause license*[181]. This is often implemented by simply adding a copy of the license into the package. Hence, you are furthermore not allowed to modify these files or corresponding text snippets. For our purposes, we translated the bans into the following executable task:

  > *Ensure that the licensing elements – esp. the BSD license text, the specific copyright notice of the original author(s), and the BSD disclaimer – are retained in your package in the form you have received them.*

- For the redistribution in form of binary files, the license requires, that the licensing elements must be '[...] (reproduced) in the documentation and/or other materials provided with the distribution'[182]. Hence, this is not required as a necessary condition for the (re)distribution as source code package. But nevertheless, even for a distribution in form of source code, it is often possible to fulfill this rule too – e.g. if you offer an own download site for source code packages. In such cases, it is a sign of respect, to mention

[179] cf. *Open Source Initiative*: The BSD 2-Clause License, 2012, wp.
[180] cf. id., ibid.
[181] The BSD license requires that a re-distributed software package must contain the (package specific) copyright notice, the (license specific) conditions and the BSD disclaimer. (cf. id., l.c., wp.) You might ask what you should do, if these elements are missed in the package you received. If so, the package you received had not been licensed adequately. Hence, you do not know reliably whether you have received it under a BSD license. In other words: If you have received a BSD licensed software package, it must contain sufficient license fulfilling elements, or it is not a BSD licensed software.
[182] cf. id., l.c., wp.

the licensing not only inside of the packages, but also in the text of your site. Because of that, we added the following voluntary task for all BSD open source use cases which deal with the redistribution in form of source code:

> *Let the documentation of your distribution and/or your additional material also contain the original copyright notice, the BSD conditions, and the BSD disclaimer.*

- Naturally, because the reproduction of the licensing elements 'in the documentation and/or other materials provided with the distribution' is explicitly required for the 'redistribution in binary form'[183], we had to rewrite the facultative task for a distribution in form of source code as a mandatory task for all BSD open source use cases which deals with the redistribution in binary form:

  > *Ensure that the documentation of your distribution and/or your additional material also contains the author specific copyright notice, the BSD conditions, and the BSD disclaimer.*

- In case of (re)distributing the program in form of binary files, it is sometimes not enough, to pass the licensing elements as one has received them. If you compile the binary package from the source code, it is not necessarily true, that the licensing elements are also automatically generated and embedded into the 'binary package'. But nevertheless, you have to add the copyright notice, the conditions and the disclaimer to this package for acting according to the BSD license. Therefore we chose the following form of an executable, license fulfilling task for all binary oriented distributions:

  > *Ensure that your distribution contains the original copyright notice, the BSD license, and the BSD disclaimer in the form you have received them. If you compile the binary file on the base of the source code package and if this compilation does not also generate and integrate the licensing files, then create the copyright notice the BSD conditions, and the BSD disclaimer according to the form of the source code package and insert these files into your distribution manually.*

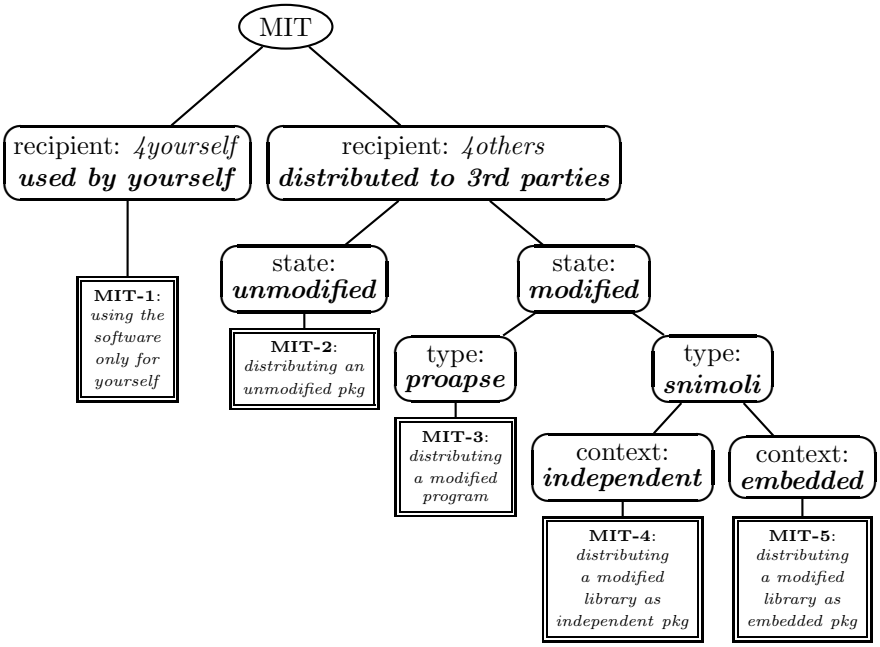
- Finally, we wished to insert a hint to the general (open source) tradition, to mention the used open source software and their licenses as a remark of the 'copyright widget' of an application. This is not required by the BSD license. But it is a general, good tradition. Naturally, because of the freedom to use and modify open source software and to redistribute a modified version of it, you are also allowed to insert such references, even

[183] cf. *Open Source Initiative*: The BSD 2-Clause License, 2012, wp.

if they are missing. Therefore we added a third voluntary license tradition fulfilling task for all relevant open source use cases.

## 6.4 MIT licensed software

The MIT license is known as one of the most permissive licenses. Thus, the MIT specific finder can be simplified:




### 6.4.1 MIT-1: Using the software only for yourself

**means** that you are going to use a received MIT software only for yourself and that you do not handover it to any 3rd party in any sense.

**covers** OSUC-01, OSUC-03, OSUC-06, and OSUC-09[184]

**requires** the tasks in order to fulfill the conditions of the MIT license:

- You are allowed to use any kind of MIT licensed software in any sense and in any context without any other obligations if you do not handover the software to 3rd parties and if you do not modify the existing copyright notes and the existing permission notice.

**prohibits** nothing explicitly.

[184] For details see pp. 49 - 53

### 6.4.2 MIT-2: Passing the unmodified software

**means** that you are going to distribute an unmodified version of the received MIT software to 3rd parties – regardless whether you distribute it in form of binaries or of source code files[185]

**covers** OSUC-02, OSUC-05, OSUC-07[186]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that the licensing elements – esp. the MIT license text containing the specific copyright notices of the original author(s), the permission notices and the MIT disclaimer – are retained in your package in the form you have received them.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage.

**prohibits** nothing explicitly.

### 6.4.3 MIT-3: Passing a modified program

**means** that you are going to distribute a modified version of the received MIT program, application, or server (proapse) to 3rd parties[187].

**covers** OSUC-04[188]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that the original licensing elements – esp. the MIT license text containing the specific copyright notices of the original author(s), the permission notices and the MIT disclaimer – are retained in your package in the form you have received them.
- [**voluntary:**] Mark your modifications in the sourcecode, regardless whether you want to distribute the code or not.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage.

185) In this case it also doesn't matter whether you distribute a program, an application, a server, a snippet, a module, a library, or a plugin as an independent package

186) For details see pp. 49 - 52

187) In this case it doesn't matter whether you are going to distribute it in form of a set of source code files or as an integrated source code package.

188) For details see pp. 50

- [**voluntary:**] You are allowed to expand an existing copyright notice presented by the program during its user interaction by a hint to your own work or part.
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the program also state that it is based on a version originally licensed under the MIT license. Because you are already modifying the program, you can also add such a hint, if the presented original copyright notice lacks such a statement.

**prohibits** nothing explicitly.

### 6.4.4 MIT-4: Passing a modified library independently

**means** that you are going to distribute a modified version of the received MIT code snippet, module, library, or plugin (snimoli) to 3rd parties without embedding it into another larger software unit.

**covers** OSUC-08[189]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that the original licensing elements – esp. the MIT license text containing the specific copyright notices of the original author(s), the permission notices and the MIT disclaimer – are retained in your package in the form you have received them.
- [**voluntary:**] Mark your modifications in the sourcecode, regardless whether you want to distribute this source code or not.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage.

**prohibits** nothing explicitly.

### 6.4.5 MIT-5: Passing a modified library as embedded component

**means** that you are going to distribute a modified version of the received MIT code snippet, module, library, or plugin (snimoli) to 3rd parties together with another larger software unit which contains this code snippet, module, library, or plugin as an embedded component.

**covers** OSUC-10[190]

[189] For details see pp. 53
[190] For details see pp. 54

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that the original licensing elements – esp. the MIT license text containing the specific copyright notices of the original author(s), the permission notices and the MIT disclaimer – are retained in your package in the form you have received them.
- [**voluntary:**] Mark your modifications in the sourcecode, regardless whether you want to distribute this source code or not.
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the running program also state that the program uses a component being licensed under the MIT license. And it is a good tradition to insert links to the homepage / download page of this used component.
- [**voluntary:**] It's also a good tradition to let the documentation of your programm and/or your additional material also mention that you have used this component added by a link to the original software component and its homepage.
- [**voluntary:**] Arrange your distribution so that the the original licensing elements – esp. the MIT license text containing the specific copyright notices of the original author(s), the permission notices and the MIT disclaimer – clearly refer only to the embedded library and do not disturb the licensing of your own overarching work. It's a good tradition to keep the libraries, modules, snippet, or plugins in specific directiers which contain also all licensing elements.

**prohibits** nothing explicitly.

### 6.4.6 Discussions and Explanations

The MIT-License is known as one of the most permissive licenses. It is a very short license containing (1) a paragraph saying that you are allowed to do almost anything you want, followed (2) by the condition that you have to 'include' the existing copyright notes and the permission notes '[. . . ] in all copies or substantial portions of the software', and (3) closed by the well known disclaimer[191]. But the license doesn't talk about the difference of source code and object code. So, you have to find the right way by yourself. Here are our interpretations:

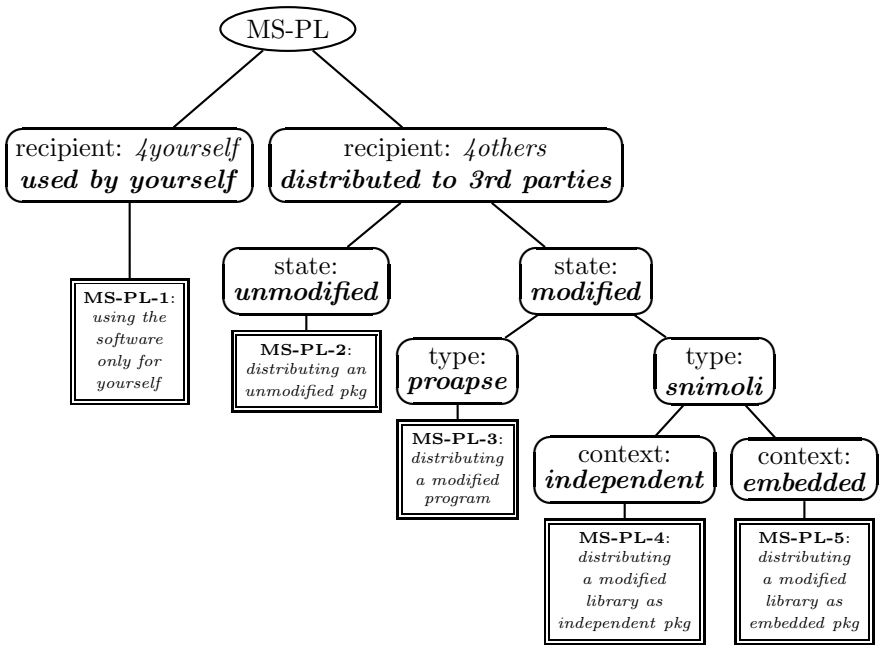
- If you do not modify the received MIT licensed application, neither for your own purposes, nor for handing over the program to 3rd parties, you can conclude that all copyright notices and permission notices are already correct.

[191] cf. *Open Source Initiative*: The MIT License, 2012, wp.

- Nevertheless, we added the hint not to modify these licensing elements in the context of the use case *used by yourself*. This is evoked by the MIT license itself. It requires explicitly that ' the above copyright notice and this permission notice shall be included in all[sic!] copies or substantial portions of the Software'[192] – thus also into those copies you make for your own purposes own your own machines, and even if this is probably not so often reviewed.
- If you modify the received MIT licensed application, regardless for which purposes, you are simply not allowed to erase or modify existing copyright notes and permission notices. You may add your own modifications under new conditions, but the old base must survive.

## 6.5 Microsoft Public License

The MS-PL license is also one of the most permissive licenses. Thus, the MS-PL specific finder can be simplified:




### 6.5.1 MS-PL-1: Using the software only for yourself

**means** that you are going to use a received MS-PL software only for yourself and that you do not handover it to any 3rd party in any sense.

[192] cf. *Open Source Initiative*: The MIT License, 2012, wp.

**covers** OSUC-01, OSUC-03, OSUC-06, and OSUC-09[193]

**requires** the tasks in order to fulfill the conditions of the MS-PL license:

- You are allowed to use any kind of MS-PL licensed software in any sense and in any context without any other obligations if you do not handover the software to 3rd parties.

**prohibits** nothing explicitly.

### 6.5.2 MS-PL-2: Passing the unmodified software

**means** that you are going to distribute an unmodified version of the received MS-PL software to 3rd parties – regardless whether you distribute it in form of binaries or of source code files[194]

**covers** OSUC-02, OSUC-05, OSUC-07[195]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that all licensing elements – esp. all copyright, patent, trademark, and attribution notices that are present in the version you received – are completely retained in your package.
- [**mandatory:**] Incorporate a complete copy of the MS-PL license into your package, regardless wether you distribute a source code or a binary package[196].
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage.

**prohibits** to use any contributors' name, logo, or trademarks (without an additional or general legally based approval).

### 6.5.3 MS-PL-3: Passing a modified program as source code

**means** that you are going to distribute a modified version of the received MS-PL licensed program, application, or server (proapse) to 3rd parties as a source code package.

**covers** OSUC-04[197]

193) For details see pp. 49 - 53

194) In this case it also doesn't matter whether you distribute a program, an application, a server, a snippet, a module, a library, or a plugin as an independent package

195) For details see pp. 49 - 52

196) → OSLiC, p. 84

197) For details see pp. 50

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that all licensing elements – esp. all copyright, patent, trademark, and attribution notices that are present in the version you received – are completely retained in your package.
- [**mandatory:**] Incorporate a complete copy of the MS-PL license into your package.
- [**mandatory:**] If you do not want to publish your modifications under the MS-PL too, then cleanly separate your own sources and licensing documents from original elements of the adopted work.
- [**voluntary:**] Mark your modifications in the sourcecode.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage (as far as this does not clashes with the prohibitions stated below).
- [**voluntary:**] You are allowed to expand an existing copyright notice of the program by a hint to your own contributions.
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the running program also state that the program is licensed under the MS-PL license (as far as this does not clashes with the prohibitions stated below). Because you are already modifying the program, you can also add such a hint, if the original copyright notice lacks such a statement.

**prohibits** to use any contributors' name, logo, or trademarks (without an additional or general legally based approval).

### 6.5.4 MS-PL-3: Passing a modified program as binary

**means** that you are going to distribute a modified version of the received MS-PL licensed program, application, or server (proapse) to 3rd parties as a package of binaries.

**covers** OSUC-04[198]

**requires** the tasks in order to fulfill the license conditions

- [**voluntary:**] Mark your modifications in the source code even if do not want to distribute it.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the

[198] For details see pp. 50

original software (project) and its homepage (as far as this does not clashes with with the prohibitions stated below).

- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice which is shown by the running program also state that the derivative work is based on a version originally licensed under the MS-PL license (as far as this does not clashes with the prohibitions stated below) – perhaps by linking to the project homepage of the original. Because you are already modifying the program, you can also add such a hint, if the original copyright notice lacks such a statement.

**prohibits** to use any contributors' name, logo, or trademarks (without an additional or general legally based approval)

### 6.5.5 MS-PL-4: Passing a modified library independently as source code

**means** that you are going to distribute a modified version of the received MS-PL code snippet, module, library, or plugin (snimoli) to 3rd parties without embedding it into another larger software unit.

**covers** OSUC-08[199]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that all licensing elements – esp. all copyright, patent, trademark, and attribution notices that are present in the version you received – are completely retained in your package.
- [**mandatory:**] Incorporate a complete copy of the MS-PL license into your package.
- [**mandatory:**] If you do not want to publish your modifications under the MS-PL too, then cleanly separate your own sources and licensing documents from original elements of the adopted part(s).
- [**voluntary:**] Mark your modifications in the sourcecode.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage (as far as this does not clashes with with the prohibitions stated below).

**prohibits** to use any contributors' name, logo, or trademarks (without an additional or general legally based approval)

[199] For details see pp. 53

### 6.5.6 MS-PL-4: Passing a modified library independently as binary

**means** that you are going to distribute a modified version of the received MS-PL code snippet, module, library, or plugin (snimoli) to 3rd parties without embedding it into another larger software unit.

**covers** OSUC-08[200]

**requires** the tasks in order to fulfill the license conditions

- [**voluntary:**] Mark your modifications in the source code even if do not want to distribute it.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage (as far as this does not clashes with with the prohibitions stated below).

**prohibits** to use any contributors' name, logo, or trademarks (without an additional or general legally based approval)

### 6.5.7 MS-PL-5: Passing a modified library as embedded source code

**means** that you are going to distribute a modified version of the received MS-PL licensed code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a set of source code files or an integrated source code package together with another larger software unit which contains this code snippet, module, library, or plugin as an embedded component.

**covers** OSUC-10[201]

**requires** the tasks in order to fulfill the license conditions

- [**mandatory:**] Ensure that all licensing elements – esp. all copyright, patent, trademark, and attribution notices that are present in the version you received – are completely retained in your package.
- [**mandatory:**] Incorporate a complete copy of the MS-PL license into your package.
- [**mandatory:**] If you do not want to publish your modifications and/or your overarching application under the MS-PL too, then cleanly separate your own sources and licensing documents from original elements of the adopted work.
- [**voluntary:**] Mark your modifications in the sourcecode.

[200] For details see pp. 53
[201] For details see pp. 54

- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage (as far as this does not clashes with with the prohibitions stated below).
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice shown by your overarching program also state that it is based on a component originally licensed under the MS-PL license – perhaps by linking the project homepage of the original (as far as this does not clashes with the prohibitions stated below).

**prohibits** to use any contributors' name, logo, or trademarks (without an additional or general legally based approval)

### 6.5.8 MS-PL-5: Passing a modified library as embedded binary

**means** that you are going to distribute a modified version of the received MS-PL licensed code snippet, module, library, or plugin (snimoli) to 3rd parties in form of a binary package together with another larger software unit which contains this code snippet, module, library, or plugin as an embedded component.

**covers** OSUC-10[202]

**requires** the tasks in order to fulfill the license conditions

- [**voluntary:**] Mark your modifications in the source code even if do not want to distribute it.
- [**voluntary:**] It's a good tradition to let the documentation of your distribution and/or your additional material also contain a link to the original software (project) and its homepage (as far as this does not clashes with with the prohibitions stated below).
- [**voluntary:**] It is a good practice of the open source community, to let the copyright notice shown by your own overarching program also state that it is based on a component originally licensed under the MS-PL license – perhaps by linking the project homepage of the original (as far as this does not clashes with the prohibitions stated below).

**prohibits** to use any contributors' name, logo, or trademarks (without an additional or general legally based approval)

[202] For details see pp. 54

### 6.5.9 Discussions and Explanations

The MS-PL is also a very permissive and short license. It requires to do: (a) You must preserve existing licensing elements. (b) You must distribute the source code as whole or 'portions' of the source code under the MS-PL. (c) You must add a copy of the license if you distribute (parts of) the source code. (d) If you distribute a binary package, you must distribute (the parts of) the work under a license 'that complies with this (MS-PL) license'[203].

The most confusing clause is probably the condition, to '[...] distribute any portion of the software in compiled or object code form [...] only [...] under a license that complies with this license'. But a closer examination is lighting the situation: The only other conditions of the license which refer to the context of distributing binaries are the requirements a) not to abuse trademarks, b) not to bring a patent claim against any contributor, and c) not to expect any warranties or guarantees with respect to the distributed portion[204].

Based on these readings we decided ...

- ...to let you incorporate a copy of the license into your distribution even if it only contains the binaries of the unmodified version: if you have not modified it, you do not lose any advantage if you add the license, too. So, thgis is the best method to fulfill the *MSL-PL binary condition*.
- ...to erase all mandatory conditions in case of the binary distributions: the patent restriction of the MS-PL itself is already covered by the MS-PL patent section of the OSLiC and the no warranty clause of the MS-PL by the OSLiC section concerning the power of the MS-PL while the trademark restrictions are explicitly added into the prohibition section.
- ...to erase the hints to a voluntarily updated copyright dialog in case of distributing a snimoli independently because the copyright dialog normally is designed by the overarching work which uses the library, not by the library itself.

## 6.6 Postgres Licensed Software in the usage context of ...[tbd]

### 6.6.1 PGL specific use case 1

(covers OSUC-X - OSUC-Z)

**means** ...

[203] cf. *Open Source Initiative*: MS-PL, 2013, wp.
[204] cf. id., l.c., wp. §3A, §3B, §3E.

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

### 6.6.2 PGL specific use case n

(covers OSUC-x - OSUC-z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

## 6.7 PHP Licensed Software in the usage context of ... [tbd]

### 6.7.1 PHP specific use case 1

(covers OSUC-X - OSUC-Z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

### 6.7.2 PHP specific use case n

(covers OSUC-x - OSUC-z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

## 6.8 Eclipse Licensed Software in the usage context of ... [tbd]

### 6.8.1 EPL specific use case 1

(covers OSUC-X - OSUC-Z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

### 6.8.2 EPL specific use case n

(covers OSUC-x - OSUC-z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...

- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

## 6.9 European Public Licensed Software in the usage context of ... [tbd]

### 6.9.1 EUPL specific use case 1

(covers OSUC-X - OSUC-Z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

### 6.9.2 EUPL specific use case n

(covers OSUC-x - OSUC-z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

## 6.10 Mozilla Public Licensed Software in the usage context of . . . [tbd]

### 6.10.1 MPL specific use case 1

(covers OSUC-X - OSUC-Z)

### 6.10.2 MPL specific use case n

(covers OSUC-x - OSUC-z)

## 6.11 LGPL Licensed Software in the usage context of . . . [tbd]

### 6.11.1 LGPL specific use case 1

(covers OSUC-X - OSUC-Z)

**means** . . .

**covers** OSUC-?? . . .

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure . . .
- [**voluntarily:**] Let . . .

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

### 6.11.2 LGPL specific use case n

(covers OSUC-x - OSUC-z)

**means** . . .

**covers** OSUC-?? . . .

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure . . .
- [**voluntarily:**] Let . . .

**prohibits** the following doings in order to fulfill the license conditions

- **[directly:]**
- **[indirectly:]**

## 6.12 AGPL Licensed Software in the usage context of . . . [tbd]

### 6.12.1 AGPL specific use case 1

(covers OSUC-X - OSUC-Z)

**means** . . .

**covers** OSUC-?? . . .

**requires** the following tasks in order to fulfill the license conditions

- **[mandatorily:]** Ensure . . .
- **[voluntarily:]** Let . . .

**prohibits** the following doings in order to fulfill the license conditions

- **[directly:]**
- **[indirectly:]**

### 6.12.2 AGPL specific use case n

(covers OSUC-x - OSUC-z)

**means** . . .

**covers** OSUC-?? . . .

**requires** the following tasks in order to fulfill the license conditions

- **[mandatorily:]** Ensure . . .
- **[voluntarily:]** Let . . .

**prohibits** the following doings in order to fulfill the license conditions

- **[directly:]**
- **[indirectly:]**

## 6.13 GPL Licensed Software in the usage context of . . . [tbd]

### 6.13.1 GPL specific use case 1

(covers OSUC-X - OSUC-Z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

### 6.13.2 GPL specific use case n

(covers OSUC-x - OSUC-z)

**means** ...

**covers** OSUC-?? ...

**requires** the following tasks in order to fulfill the license conditions

- [**mandatorily:**] Ensure ...
- [**voluntarily:**] Let ...

**prohibits** the following doings in order to fulfill the license conditions

- [**directly:**]
- [**indirectly:**]

# 7 Open Source Licenses and Their Legal Environments [tbd]

*In this chapter we analyze why to know a license alone is not enough. At the end you will know that open source licenses are embedded into the legal environment of a state. And you will know in which sense the German legal environment predetermines your readings of open source licenses.*

# 8 Conclusion

*This chapter shortly describes what the OSLiC is, how it should be used, and how it can be read. It shall be written as top-down explanation.*

# 9 Appendices

## 9.1 Some Additional Remarks on the OSLiC Quotation Style

We have already characterized the general tone of our footnotes[205]. Let us now briefly explain a little peculiarity of our bibliography:

Modern times have also changed the humanities. Formerly a book or an article must be printed for being ripe to be quoted. Our statements relied on static, readily prepared works. Nowadays even university libraries sometimes offer those books and articles as PDF files which are printed in the original. As a scholar, now you must rely on the equality of the printed version and the PDF file - at least with respect to the page numbers and the appearance. You can not verify the equivalence - at least to a certain degree.

Moreover: in case of such 'e-books' and 'e-articles' the libraries often do not offer the pdf files themselves but links to the download pages of the publisher. Formerly as a scholar you could trust that your readers would be able to retrieve the quoted work if they want to verify your citations. It's one task of our libraries to hold available our scientific sources. But now they do not buy any longer the books, but the right to download files over the university net. In this case these PDF files are not stored on the serves of the university library. By using the link provided by the publisher each student or each reader downloads his own file - case by case. Therefore - as a scholar - you now have to trust that the publisher, who provides the link, will not change that pdf file that you have cited.

But it gets even worse: While it might be that publishers modify their work secretly (even it is not very likely that they do it), it's a definite feature of the web that its pages are frequently changed. Hence we must ask ourselves: Can we seriously argue on the basis of statements and documents which might disappear? Can we quote such possibly volatile sources? The problem is: we must do it, especially if we write about an internet topic - and even if we want to write a really reliable compendium.

So, what can we do? First, we must confide in our readers, that they either will retrieve our sources or - if they can not find them - that they believe that we really have found and read what we have written and quoted. Second, we store

[205] → p. 10

all these e-wares[206] we read[207]. And thirdly we should lay open to our readers the different levels of reliableness of our sources. Therefore we use the following markers in our bibliographic data[208]:

- Print / Copy:- The source is printed and we saw either the printed work really or we get an official copy by our library. Hence you should also be able to get the work in a library, at least in those we used (UB Frankfurt or ULB Darmstadt).
- BibWeb/[PDF/...] :- The source might be printed, but we read only the electronic version (PDF or other type of format), offered by and over the net of our university libraries (UB Frankfurt or ULB Darmstadt).
- FreeWeb/[PDF/...] :- We read the electronic version offered by the free web. In this case we add the url[209] and the date when we downloaded / saw the text.

## 9.2 Some Widespread Open Source Myths

From the viewpoint of an internet student we have to consider that the web offers a mass of rumors concerning the nature of open source software (Licenses). Here are some of the myths[210] we met:

**open source tries to improve the world ethically** :- No, there's a clear ban to exclude persons, groups, purposes. Thus, there is no chance to exclude anyone from using open source software because he is an ethical or moralic malefactor.

[206] Take this little word as (new) generalization of 'e-book', 'e-article', 'e-paper' and so on.

[207] But because of the copyright we ourselves are naturally not allowed to offer a download link for them or to send a copy of it to those who want to verify our quotes.

[208] And another hint: Nowadays sometimes even scientific libraries don't offer exact 'e-copies' of the original. In some cases one can only get html-versions of articles which formerly were printed as part of journals. In these case the scholar has to use sources which lost their original page-numbers. The same can happen to articles of proceedings etc. which are now only offered as autonomous pdf files with an internal paging. If we quote such kind of articles we try to specify the number of the quoted article in the original row of articles, added - if possible - by an internal page number. But naturally we also try to follow the bibliographic data delivered by that organization which distributes these kind of copies.

[209] Please note: Long urls often destroy the pleasing appearance of a text because it's difficult to wrap the lines acceptably. Hence we wished to make it easier for LaTeX to do this job. Therefor we sometimes split the urls and inserted blanks. So you have to erase all blanks if you want to verify our urls.

[210] At least one time even a scientific legally discussing book is talking about the 'myth around open source licenses' - although only as part of the title: cf *Guibault, Lucie* a. *Ot van Daalen*: Unravelling the Myth around Open Source Licenses. An Anaysis from A Dutch and European Law Perspective; The Hague: T. M. C. Asser Press, 2006 (= IT & Law, [Vol./No.] 8), ISBN 978–90–6704–214–7, pp. 1ff, especially 209ff.

**Changed open source software must be re-published** :- No, in a double sense! There are OS licenses which allow the proprietarization of the modified code. And even the LGPL and the GPL, which clearly try to prevent the proprietarization, do not require generally that a modified code must be (re-)published. Only if you give your modfied (L)GPL licensed application as binary to anyboday, then you have to handover the modified code too.

**Modified open source software must be given back to the whole community** :- No. Again, there are OS licenses which allow the proprietarization of the modified code. And even the LGPL and the GPL - which clearly require, that you also publish the modified code, if you give the modified binary to anybody – do not require that you distribute your modification around the world. LGPL and GPL clearly say that you have to hand over the code to those persons which you give the binary. And if you only give your improvement only one person or a group of person, then you must handover your code only to that persons or only to all members of that group.

**Published open source software is open for ever** :- No, if this myth says that also all future versions will have to be distributed under an open source license. The copyright holder ever holds the copyright. They can change the licence of next release of its software – but only for the following release, not for the current or for former versions. Those releases, which already have been distribuited under an open source license, indeed remain open.

**Software can either be open source software or proprietary software** :- No. The copyright holders themselves can additionally distribute the code under other conditions when ever they want to do it. That's not a question of the licence, but of the copyright.

**The opposite of open source software is commercial Software** :- No. First, you are also allowed to use the open source software in any commercial purpose. There's only one point which is excluded in OSS: you are not allowed to ask for a licence fee if you distribute 'open source software'. Second, there are many other forms like freeware, public domain software or anything else which is neither open source software nor Commercial Software. It's pointless to take the question of money as a criterion for distinguish open source software and its opposite. Moreover: Proprietary Software as opposite of open source software should be defined ex negativo: all kind of software, which does not fit the OSD is proprietary.

**open source software prohibits to earn money** :- No, you are allowed to invent each business model you want. There's only one exception: you are not allowed to ask for a licence fee if you distribute 'open source software [Achtung: sollte eigentlich nur für GPL gelten]. Historically this mistake might be evoked by Debian: The GNU project missed its kernel while the Linux kernel was already distributed as part of collections which also in-

clude GNU software. Then, in 1983? Ian Murdock was supported by RMS and its FSF to build a really free distribution (Debian) containg GNU software and the Linux kernel. But Ian Murdock states also, that Debian does not want to earn money.

**Modifications of open source software must be marked** :- No. This is not a defining postulation of the OSD. The OSD allows licenses to require the mark of modifications. But it does not require from all licenses to require the mark modifications for being an open source license.

**Modifications of open source software must be marked by your personal data** :- No, it is only required to mark modifications so that a reader could distinguish the modifications from the original code. It's required for saving the integrity of the original author. And therefore it is not required as a constitutiv criterion by the OSD. It might be that a license additionally requires your name. But that is not feature of open source software in general. And at least the licenses discussed by us do not require to insert your name.

**The open source Definition determines the conditions to use open source software** :- No. The *Open Source Definition* determines which licenses are open source licenses, nothing more. The OSD is a set of necessary conditions to be an open source license. It determines the freedom and the responsibilities of a user as a set of more or less abstract rules. But it does not constitute a set of sufficient tasks which a user has to perform for fulfilling any open source license. Open source licenses may differ by instantiating the OSD criteria. So, if you want to know what you have to do to fulfill a license, you have to go back to the real license of that software you are using.

*This section outlines reflections by which we initially focused ourselves on the question why we need an OSLiC and how its content and form should be derivated from these needs.*

### 9.2.1 Why

Do we need another book about open source? Do *you* need another book about open source software? Let us address this question from the viewpoint of what we already know, what we instinctively believe and what we may have heard. For example you may presume one or more of the following statements are correct. Or you may even have experienced similar perceptions from your peers or managers. Or you have been told they describe 'open source':

- The *Open Source Definition* offers rules to use open source software.
- Modified open source software must be published.

- Modified open source software must be given back to the community.
- All generations of open source software will remain open for ever.
- Software can either be open source software or proprietary software.
- The opposite of open source software is commercial software.
- open source software prohibits to earn money.
- Modifications of open source software must be marked explicitly.
- Modifiers of open source software must identify themselves.
- When distributing an open source binary it's enough point to a download page to obtain the source code.
- The aim of open source software is to improve the world ethically.
- open source software is viral and infectious.

Do these conceptions sound familiar to you? Unfortunately, whatever we might believe or wish for, these concepts are incorrect. Naturally we will discuss this issue later on. For the moment let us assume they are indeed incorrect[211].

So, again: Do *we* need another book about open source software? *We*, that is – in this case and at least initially – the large German company *Deutsche Telekom AG*. Arguing from the perspective of a large company requires not only identifying the common misconceptions, but catering for the unique needs of a large Enterprise. And indeed the very size of the company brings its own problems.

Large companies use more open source software in more varied contexts than small companies. There is an important question that every company should ask: *'Are we sure that we respect all those requirements of open source software we have to respect?'*. But large companies cannot answer this question as easily as small companies: the large number of diverse open source deployments in different contexts mean that case by case governance, a model that may work in small concerns, is far from appropriate for our needs. This leads to wasting both time and money. Further, the chances of success are small: training at least one employee in each software team as an open source software License expert is unrealistic in terms of cost-efficiency and reliability.

Nevertheless even large companies want to and try to fulfill the rules of open source software thoroughly – especially *Deutsche Telekom AG*. When this company realized that the question *Are we sure that we respect all those rules of open source software correctly which we have to respect* could be problematic, it directly asked some of its employees known as open source enthusiasts to establish a service and a process for answering this question.

[211] For those who want directly verify our argumentation, we have generated a condensed summary of the arguments and citations. You can find this summary in our appendices.

So, it is no surprise that we, the initial authors of this *Open Source License Compendium*, were asked by our employer *Deutsche Telekom AG*. Naturally we were proud to work on an open source topic officially. But while we were doing our job we had to ask ourselves if *we* perhaps needed another book on open source. Our answer was *Yes, we do!* Let us shortly explain, why:

First, we already knew that there exists supporting software. These meta-programs take the code of any other application and try to list those open source components being 'covered' by that application[212]. But we had also already realised that this supporting software did not always match the way we thought the problem should be solved. Second, we recognized fairly quickly that we need a reliable guide. We personally were asked to give the *ok* for projects of our company. We could not answer such requests on the base of *'Oh yes, I read this in the* Heise-Ticker *a few days ago'* – even if the *Heise-Ticker* had described the situation completely correctly. We ourselves had to be more reliable than this[213]. Naturally we already knew a great deal about open source software. Even so, our knowledge was not as systematic as necessary. We looked for an open source compendium which adequately described what a project or product development team had to do to fulfill the criteria of its open source licenses. We wanted to use that compendium to the basis of our recommendations.

We were very thorough but we did not find what we were looking for. Our 'little' bibliography attest our seriousness. What we found was a lot of information releated to individual issues spread over many sources. We did not find answers to our question even in the specific literature. Let us describe three little steps to increase the understanding of the issue:

Without open source licenses there is no open source movement. Nevertheless in dealing with open source licenses, this is sometimes neglected. Take the *Apache Web Server* as an example: No doubt, it is one of the most important pieces of

[212] As general examples let us mention Palamida (`http://www.palamida.com/`) and BlackDuck (`http://www.blackducksoftware.com/`).

[213] But of course, we have to do ourselves the honor of conceding that we – like many many other German open source enthusiasts – love using the *Heise-Ticker* as main IT information source. Unfortunately, its reputation is stil not high enough that its news can directly be cited.

open source software[214] with a specific license[215]. Moreover: the success of the open source movement in the commercial world depends directly on the decision of IBM to replace its corresponding own component in the *IBM WebSphere Application Server* with the free *Apache Web Server*[216]. Meanwhile many companies use the *Apache Web Server* to act as a web provider. Currently the *Apache http server* – as it has to be named correctly – is used more than twice as much as all the other http server software together[217]. Hence many business models depend on the Apache License. Another aspect is that even the famous *Apache Cookbook*, which explains the installation, the configuration, and the maintainance of an Apache Web Server in details[218], does not mention anything about the license which allows for installation, configuration and maintenance. Neither the index lists the word 'license'[219], nor the chapters 'Installation'[220] or the chapter 'Miscellaneous'[221] mentions the license question in a serious way. There's only one short hint as to the advantage of open source software, i.e. that everybody is allowed to install it[222]. Can you be sure that you are allowed to do what you are doing on the base of such a phrase?

Naturally, the *Apache Cookbook* is not a book for lawyers, it is a book for administrators and developers. They do not want to get bogged down by legalities,

214) To prove that the *Apache* is really a piece of open source software one must execute a set of steps: First, you have to note, that *Apache* is something like a meta project, covered by the *Apache Software Foundation*, also known as *ASF* (cf. `http://www.apache.org/`, wp.). Thus, you can not directly jump into the *Apache License*. First of all you have to visit the project site (cf. `http://httpd.apache.org/`, wp.) even if at the end its license link leads you back to the general *Apache License sub site* (cf. `http://www.apache.org/licenses/`, wp.) which announces, that 'all software produced by The Apache Software Foundation or any of its projects or subjects is licensed according to the terms of the documents listed below'. Only now you can use the offered link for switching to the *Apache License*, Version 2.0, if you want to check your rights and duties. But that is difficult. There does not exist any simple list what you have to do for fulfilling the license. Even the faq (cf. `http://httpd.apache.org/docs/2.2/faq/`, wp.) – meanwhile being moved to a wiki – only says that the server '[...] comes with an unrestrictive license' and that you are allowed to put the code on a CD (cf. `http://wiki.apache.org/httpd/FAQ`, wp.). Hence, from the viewpoint of the ASF the license itself shall answer all questions. [Reference download for all urls: 2011-08-31]

215) cf. *Apache Software Foundation*: Apache License, 2.0, wp..

216) cf. *Moody*: Die Software-Rebellen, 2001, pp. 287ff.

217) cf. *Netcraft*: August 2011 Web Server Survey; 2011 ⟨URL: `http://news.netcraft.com/archives/2011/08/05/august-2011-web-server-survey-3.html`⟩ – reference download: 2011-08-31, wp.

218) cf. *Coar, Ken* a. *Rich Bowen*: Apache Kochbuch; deutsche Übersetzung v. Jochen Wiedmann; Beijing [...]: O'Reilly, 2004, ISBN 3–89721–371–0, et passim.

219) cf. id., l.c., pp. 245ff, esp. p. 250.

220) cf. id., l.c., pp. 1ff.

221) cf. id., l.c., pp. 219ff.

222) cf. id., l.c., pp. 1: ' ...einer der Vorzüge von open source software besteht darin, dass jedermann die Erlaubnis zur Erzeugung eines eigenen Installationskits hat '.

they want to set up an Apache Web Server as fast as possible and get down to work. Indeed, the Apache Cookbook offers a good support. But not only as a company you have to ask yourself whether you are really allowed to do what you are doing. Can you find the answer in the *Apache Cookbook*? No. Can you find it in the license itself? Yes, but it is difficult[223]. So again: Can you find your answer in another book, which is *Amazon's* current top recommendation for the search term *'apache server'*[224]? Not really: Sascha Kersken's Apache 2.2 Handbook offers a license chapter, but it is only two pages long[225]. Moreover, the rights and duties are condensed into just 5 bullet points which taken together do not explain when the software and the license have to be handed over to a customer and when you are allowed to hide your improvements[226].

This brings us to the question of what prevents us from using something like a *'general license cookbook'* which explains all the necessary details and which offers quick access to the relevant points:

Of course we also browsed the internet. At least for German speaking people there is an excellent site concerning the topic *open source licenses.* offered by *iffross*, which, loosely translated, means an *Institute for Legal Aspects of the Free and open source software*[227], founded in 2000 as a private institute to track the phenomenon 'free software' from the viewpoint of (German) lawyers[228]. Besides many other aspects this site offers a very well and thoroughly elaborated FAQ[229] and a large list of open source licenses and other related licenses: moreover, evidently it is classifying the open source licenses in those 'without copyleft-effect' (BSD), in those with 'strict copyleft-effect' (GPL)) and in those with 'restricted copyleft-effect' (LGPL)[230].

However, even this excellent site does not fulfill our needs. It does not offer those context specific to-do lists which companies, developers or project managers can use to ensure their open source software is used in a regular manner.

We therefore evaluated that standard book which is listed in the most legal bibliographies[231]: the book of Jaeger and Metzger which concerns – loosely translated

[223] And do we really want our developers and maintainers to read the original licenses? Do we really want them to discover that they also have to check the licenses of the used modules?

[224] Tested on `http://www.amazon.de/` at 2011-08-31.

[225] cf. *Kersken, Sasche*: Apache 2.2. Das umfassende Handbuch; 3rd, refreshed a. expanded edition; Bonn: Galileo Press, 2009, ISBN 978–8362–1325–7, pp. 111f.

[226] cf. id., l.c., p. 112.

[227] originally: 'Institut für Rechtsfragen der Freien und open source software'. Main entry point for its site is the URL `http://www.ifross.org/`.

[228] cf. *ifross*: Ziele, Aufgaben, Geschichte; 2011 ⟨URL: `http://www.ifross.org/node/16`⟩ – reference download: 2011-09-05, wp.

[229] cf. *ifross*: FAQ; 2011 ⟨URL: `http://www.ifross.org/faq-haeufig-gestellte-fragen`⟩ – reference download: 2011-09-05, wp.

[230] cf. *ifross*: ifross Lizenz-Center, 2011, wp.

[231] at least in that German judicial literature dealing with open source

– *the judicial framework requirement for open source software*[232]. Even the most earliest edition of this book already had a clear structure in its chapter 'copyright': For each license mentioned (or at least for each license cluster) it offered a subchapter for the rights and a subchapter for the duties[233] of the software user[234]. Many other important aspects of the topic *open source* are discussed, too[235].

But we needed more than this. Despite the quality of the book we were certain that we could not hand over this book to our programmers with the recommendation *check your touched licenses and follow the instructions of the relevant subchapters. . . .* This book did not contain simply checkable to-do lists, neither in the first edition[236] and in the second edition[237] nor in the recently published third edition[238]. So, how can a company or a developer or a project manager be sure of fulfilling the requirements of the open source licenses sufficiently if he/she does not have a verified list telling him *'do this, and in case of that, do that, and finally do also this'*? Why should he himself implicitly become an open source licenses expert who has to extract the necessary steps out of the literature?

While we were searching for an existing open source compendium, we found an article with the title 'Compendium for the Publication of open source software'[239]. It aims to be a 'pragmatic guidebook' and an 'assistance' for 'publishing software under the conditions of an open source license'[240]. Moreover, at the end of this article, its authors formulate ambitiously that their 'guide' should be carried out, section by section – for getting a legally water tight process of publishing open

[232] cf. *Jaeger, Till* a. *Axel Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software; 1st edition. München: Verlag C.H. Beck, 2002, ISBN 3406484026, pp. V – It can not be any surprise that both authors, Mr. Jaeger and Mr. Metzger are members of ifross (cf. `http://www.ifross.org/personen/`, wp.).

[233] cf. id., l.c., pp. 30ff.

[234] For getting a good survey of the structure and the line of thought see the contents cf. id., l.c., pp. VIIIf.

[235] pars pro toto: have a look at the chapter concerning the liability: cf. id., l.c., pp. 137ff.

[236] cf. id., l.c., pp. VIff.

[237] cf. *Jaeger, Till* a. *Axel Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software; 2nd edition. München: Verlag C.H. Beck, 2006, ISBN 3406538037, pp. VIIff.

[238] cf. *Jaeger a. Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software, 2011, pp. VIIIff. Naturally we use this latest edition for adopting or discussing systematical aspects.

[239] approximately translated

[240] cf. *Bretschneider, Ulrich*, *Rainer Glaschick*, a. *Gernot Gräfe*: Ratgeber für die Veröffentlichung von Open-Source-Software durch eine Hochschule; in: *Michael Asche* et al., editors: Open Source. Kommerzialisierungsmöglichkeiten und Chancen für die Zusammenarbeit von Hochschulen und Unternehmen; Münster, New York, München [... etc.]: Waxmann, 2008 (= POWeR / Patent Offensive Westfalen Ruhr, [Vol./No.] 3), ISBN 978–3–8309–1845–5, pp. 166f (originally: ein 'pragmatischer Ratgeber' zur 'Veröffentlichung einer Software unter den Rahmenbedingungen einer Open-Source-Lizenz').

source software[241].

The authors of this article describe something close to what we were looking for. Indeed, the article lists important aspects which have to be taken in consideration if you want to deal open source software correctly: It announces that no obligation exists to publish code either if you embed GPL code into your proprietary code or if you modify the GPL code. It is only if you hand over your binary to other persons that you have to distribute the code too, but only to them and not to the general public[242]. Additionally the articles explains exactly that software – at least in Germany – can only be acknowledged as open source software by transferring the rights to use – the *'Nutzungsrechte'* – to other people, while the copyright itself – the *'Urheberpersönlichkeitsrecht'* – is not transferable and belongs to the author[243]. Moreover, besides other aspects the articles briefly and deeply discusses the problem of the No-Warranty-Clauses which are not valid in Germany and which will therefore automatically be replaced by the liability rules for a donation[244]. And last but not least this article actually summarizes the idea of Copyleft and the differences between LGPL and GPL[245].

However some gaps remain. The article does not analyze in which cases a University or a company perhaps *must* publish its developments based on open source software. It does not discern between different licenses and conditions. It also does not discuss what Universities or companies, which (re-)use and/or distribute open source software (internally), must do to fulfill the touched open source licenses. And finally this article does not offer the step by step list as promised.

We did, however, feel supported by this article, in two ways. First, it was a well written summary of some main problems. Second, it stated the necessity to have a compendium for being able to establish a legally 'water-tight' process of publishing open source software[246]. We seemed to be justified in our assumptions. But the open source compendium we were looking for had to be more practical, more processable, more distinguishing and more elaborated.

So again: Did we need a new book about open source software? We had looked for a reliable integrated open source compendium. But we found separate pieces of information and – as we know today – some rumors. Our answer was clear: naturally we did not need a new general book about open source. But what was lacking was a description of what responsible developers, project managers or

[241] cf. *Bretschneider, Glaschick, a. Gräfe*: Ratgeber für die Veröffentlichung von Open-Source-Software durch eine Hochschule, 2008a, pp. 186 (originally: ein 'Ratgeber', der es erlaubt ' (...) die zu berücksichtigende Aspekte (strukturiert abzuarbeiten) (...) ' und einen 'rechtlich nicht angreifbaren Veröffentlichungsprozess' zu ermöglichen).

[242] cf. id., l.c., pp. 170 and 181.

[243] cf. id., l.c., p. 173.

[244] cf. id., l.c., p. 177.

[245] cf. id., l.c., p. 181.

[246] cf. id., l.c., p. 186.

product developers require to fulfill open source licenses. We needed an *Open Source License Compendium*.

At the best such an *Open Source License Compendium* would contain a set of simply to process *'For-Fulfilling-The-License-To-Do-Lists'*. Additionally it should offer an intuitively user-friendly search option for these lists. In any case, it should share developers and project managers the effort of having to become open source license experts. For the other users, it should also clearly explain why one has to do this and not that. Hence a reliable *Open Source License Compendium* should not only list what one has to do, but should offer both, thoroughly verified reliable details and clearly condensed guidance.

Although we did not find such an open source compendium we were familiar with the spirit of the open source community. Hence we followed one of its most simple rules: *'what you miss you must develop on your own'*. Some principles should help us to achieve our targets:

**To-do lists as the core, discussions around them** : Our work should be split into two parts. As its core we wanted to offer a set of to-do-Lists. Each of these lists should be relevant to one specific open source license and should be clustered by the open source specific use cases. Around this all those aspects of open source software which influence the interpretation of the licenses and the rules core should be precisely characterized. Nevertheless, the users should be able to skip details and go directly to the section they require.

**Quotations with thoroughly specified sources** : Even if our users should not be obliged to read every part of the compendium they should not be required to believe us. We wanted to be revisable. Because our sources and our conclusions should be easily verifiable, we decided to use the academic citations and list bibliographic data extensively on the basis that our task should be to collect information, not to invent new 'facts'.

**Not the internet alone, also books and articles** : We wanted to go back to the originals even if the internet was full of more or less modified copies. We wished to get reliable facts and descriptions. Therefore we decided to evaluate not only the internet but also scientific sources – for example – offered by university libraries.

**Not clearing out the forest land, but cutting out a swathe** : Even if we had to deal with licenses and their legal aspects we did not want to get lost in detailed discussions. It should not be our task to find out whether a specific kind of handling would still be legal or already forbidden. We did not want to fight against the licenses. We did not want to stretch their ambit or to test their boundary. We wished to accept open source licenses as they are: rules written from developers for developers. And even if some parts

of these licenses would not be valid with respect to a legal system[247], we wanted to take them as our guideline – at least while they do not violate more general laws[248]. We simply wanted to *find one proven way* to cross the maybe slightly unsure forest of open source licenses. Even if indeed some clauses of the licenses finally were not enforceable against us we wanted to respect them 'voluntarily'. We wanted to deliver a set of rules which support users and remove the possibility of becoming involved in license disputes with open source developers or the Free Software Foundation.

**Take the text seriously** : On the other side we wanted to take our license texts as they were. If they lacked anything[249], we would interpret the open issues in the spirit of the open source idea. But where the text was clear and definite we wanted to take its propositions as a definite decision – even if that meaning stood against well known open source 'facts'.

**Trust the swarm** : We did not want to use our own research alone as a basis. We knew that the swarm is ever stronger than a set of some randomly selected experts. Therefore we decided to publish our text as a still unfinished work, starting with an early release 0.2. And then we wanted to invite the community to complete the compendium together with us. We would elaborate our open source compendium as a set of LaTeX- and BibTeX files which could be developed and managed in GIT or any other version control system. And finally we would publish our text under a Creative Commons

247) And indeed for example for the GPL one can argue in this way: Even if you take the GPL as a contract of the type 'donation' respectively 'Schenkung', it is presented in the form of AGBs respectively 'Allgemeine Geschäftsbedingungen' and must therefore follow the general AGB rules.'Regrettably' in Germany these general AGB rules do not allow to exclude each type of warranty. If we follow Oberhem, §11 and §12 of the GPL must be invalid in Germany because of these general AGB rules. Moreover, for Oberhem even §5 – the important clause of the GPL by which you can only get the right to use and to distribute GPL software if you respect the rules of the GPL – seems also to be invalid respectively 'unwirksam'. But the good message is that the GPL as whole is not invalid even if it contains invalid clauses. *Oberhem, Carolina*: Vertrags- und Haftungsfragen beim Vertrieb von Open Source Software; Dissertation; Hamburg: Verlag Dr. Kovač, 2008 (= Recht der Neuen Medien, [Vol./No.] 50), ISBN 978–3–8300–4075–0, pp. 128, 133ff, 150ff, esp. 146, 159.

248) what they clearly do not do!

249) The systematical underdetermination of licenses is a problem being also known in the open source respectively Free Software movement. Following the biography of RMS his main judicial counselor Moglen has stated, that 'there is uncertainty in every legal process (. . . ) ' and that it seemed to be silly to try '(. . . ) to take out all the bugs (. . . )'. Nevertheless – so Moglen resp. Williams – the goal of Richard Stallman was 'the complete opposite': He tried '(. . . ) to remove uncertainty which is inherently impossible'. But – and that's the nub of this analysis – Moglen had to follow Stallmann because of RMS character. And he had to summarize their work so, that '(. . . ) the resulting elegance (of the GPL; KR.), the resulting simplicity (of the GPL; KR.) in design almost achieves what it has to achieve'. Hence we are asked to take the license texts themselves seriously. cf. *Williams*: Free as in Freedom. Richard Stallman's Crusade for Free Software, 2002, pp. 177f.

Attribution-Share Alike German 3.0 license, to allow other people to correct us, to help us or even to take our results for their own purposes.

And so we did. Here is the result. Feel free to use it – according to our licensing.

### 9.2.2 What

Now we can briefly explain how one should be able to use the compendium:

**The Same Idea, Different Licenses** :- Here you will find background information to help you interpret open source licenses in the sense of the *Free Software movement*[250], the *open source software movement*[251], or the GNU-Project[252]. We discuss different ways to cluster open source licenses. Finally we present our own taxonomy based on the labels 'protecting the developer', 'protecting the licensed code' and 'protecting the on-top-developments'. If you are familiar with the methods of grouping different open source licenses and particular if you know that you can not authorize your doings on the base of descriptions of such license groups, then it is enough, in order to understand our line of thought, to briefly note our taxonomy and its wording.

**The Problem of Derivated Works** :- This chapter is important. In the spirit of software developers we try to explain which kinds of programming evoke a derivated work and which not. Our to-do lists will refer to this analysis.

**The Problem of Combining Different Licenses** :- You should not ignore this chapter. We will explain why and how combining software of different licenses is not as dangerous as it is often told. The results of this chapter influence the structure of our to-do lists.

**open source software and Money** :- Here we will shortly discuss ways in which money is no problem. If you already know that it is only prohibited to

[250] At least at this place you are perhaps expecting that we use the logograms FLOSS, F/OSS, F/LOSS, or whatever. As you will read later on the word *Free* is ambiguous and has strained the use of the concept *Free Software*. Later on we will also talk about the invention of the concept *open source* designed as a 'replacement' and acting as a 'splitter'. The mentioned logograms are introduced to re-establish or – at least – to underline the common history and the common center of 'both' movements, whereby the word *Libre* shall resolve the ambiguity of the word *Free*. For a first survey cf. *Wikipedia (en)*: Free and open source software; n.l., 2011 ⟨URL: `http://en.wikipedia.org/wiki/Free_and_open_source_software`⟩ – reference download: 2011-09-08, wp..

[251] For another brief and informative introduction cf. *Fogel*: Producing Open Source Software, 2006, pp. 231ff esp. p. 232f..

[252] We ourselves will stay with the concept *open source* because the OSD specifies the scope of our analysis. But we do it with a deep obeisance to Stallmann and the FSF – even if we know that this will not protect us from the thunderbolt of RMS.

require payment for the act of licensing a piece of open source software to second or third parties and if you already know that this is only forbidden by some licenses, and not by all, than you can postpone the reading of this chapter.

**The Problem of Implicitly Freeing Patents** :- Here we will illuminate some aspects of software patents and how the are handled by some open source licenses. You should know what licenses implicitly do with your patents. But it is not our intention to write a software patent compendium.

**Open Source Use Cases as Principle of Classification** :- This is an important chapter. We explain our categories 'Use as it is', 'Modify the Code', 'With Redistribution', 'Without Redistribution', 'Isolated Initial Development', 'On-Top-Development': we develop and discuss our taxonomy with respect to the side effects of 'combining different licenses' and 'generating derivated works'. This taxonomy will determine the following chapters.

**open source licenses: Find Your Specific To-do Lists** :- This is a kind of summary which joins the relevant aspects and elaborates the 'finder for your to-do lists'. This is the chapter which you probably will reuse frequently, even if you do not want to read any of our explanations.

**open source license Fulfillment: Classified To-do Lists** :- This chapter offers all classified to-do lists. The structure of its subchapters will match the structure of our finder and the structure of our taxonomy.

**open source licenses and Their Legal Environments** :- Here we discuss why using open source software in a regular manner is not only a question of the licenses themselves but of the kind of the surrounding legal system.

**Appendices: Some Widespread Open Source Myths** :- Here we make good on our promise to explain why all the propositions mentioned at the beginning of this chapter are wrong. You might read this chapter as a special introduction or a reminder epilogue whenever you want to do.

# Periodicals, Shortcuts, and Abbreviations

| | |
|---|---|
| AGPL | GNU Affero General Public License |
| ApL | Apache License |
| BISE | Business & Information Systems Engineering [ISSN: 1867-0202] |
| BSD | Berkeley Software Distrobution (License) |
| [n.abbr.] | Berkeley Technology Law Journal |
| BWV | Berliner Wissenschafts-Verlag GmbH |
| [n.abbr.] | Cultural Anthropology [ISSN: 1548-1360] |
| CiHB | Computers in Human Behavior [ISSN: 0747-5632] |
| CotACM | Communications of the ACM [ISSN: 0001-0782] |
| CR | Computer und Recht. Zeitschrift für die Praxis des Rechts der Informationstechnologien |
| CRi | Computer Law Review international [ISSN: 1610-7608] |
| [n.abbr.] | Computers & Education [ISSN: 0360-1315] |
| [n.abbr.] | Cutter IT Journal [ISSN: 1048-5600] |
| DDT | Drug Discovery Today [ISSN: 1359-6446] |
| DSS | Decision Support Systems [ISSN: 0167-9236] |
| [n.abbr.] | Ethics and Information Technology [ISSN: 1388-1957] |
| E.C.L.R. | European Competition Law Review |
| EER | European Economic Review [ISSN: 0014-2921] |
| EPL | Eclipse Public License |
| et seqq. | and the following ones |
| EUPL | European Public License |
| GPL | GNU General Public License |
| [n.abbr.] | Information & Management [ISSN: 0378-7206] |
| ibid. | ibidem = latin for 'at the same place' |
| ICC | Industrial and Corporate Change [ISSN: 0960-6491] |
| id. | idem = latin for 'the same', be it a man, woman or a group... |
| IEaP | Information Economics and Policy [ISSN: 0167-6245] |
| [n.abbr.] | IEEE Software [ISSN: 0740-7459] |
| ifross | Institut für Rechtsfragen der Freien und Open Source Software |
| [n.abbr.] | International Information and Library Review [ISSN: 1057-2317] |
| [n.abbr.] | International Journal of Medical Informatics [ISSN: 1386-5056] |
| [n.abbr.] | interactions[ISSN: 1072-5520] |
| ISJ | Information Systems Journal [ISSN: 1365-2575] |
| ITRB | Der IT-Rechtsberater [ISSN: 1617-1527] |
| JAIS | Journal of the Association for Information Systems [ISSN: 1536-9323] |
| JCSC | Journal of Computing Sciences in [Small] Colleges [ISSN: 1937-4771] |
| JISE | Journal of Information Science and Engineering [ISSN: 1016-2364] |
| JLEO | Journal of Law, Economics, & Organization [ISSN: 1465-7341] |
| JMIR | Journal of Medical Information Research [ISSN: 1438-8871] |
| [n.abbr.] | Journal of Academic Librarianship [ISSN: 0099-1333] |

| | |
|---|---|
| [n.abbr.] | Journal of Comparative Economics [ISSN: 0147-5967] |
| [n.abbr.] | Journal of Systems and Software [ISSN: 0164-1212] |
| JSIS | Journal of Strategic Information Systems [ISSN: 0963-8687] |
| l.c. | loco citato = latin for 'in the place cited' |
| LGPL | GNU Lesser General Public License |
| LJ | Linux Journal [ISSN: 1075-3583] |
| MIT | Massachusetts Institute of Technology (License) |
| MPL | Mozilla Public License |
| Ms-PL | Microsoft Public License |
| n.abbr. | no abbreviation (known) |
| [n.abbr.] | netWorker [ISSN: 1091-3556] |
| n.y. | year not stated / no year |
| n.l. | location not stated / no location |
| np. | no page numbering |
| n.st. | not stated |
| [n.abbr.] | Organization Science [ISSN: 1047-7039] |
| PgL | Postgres License |
| PHP | PHP (License) |
| [n.abbr.] | Queue [ISSN: 1542-7730] |
| [n.abbr.] | R&D Management [ISSN: 1467-9310] |
| RP | Research Policy [ISSN: 0048-7333] |
| SIGCSE Bulletin | SIGCSE Bulletin [ISSN: 0097-8418] |
| SIGCAS | ACM SIGCAS Computers and Society [ISSN: 0095-2737] |
| SIGMIS Database | ACM SIGMIS - The Data Base for Advances in Information Systems [ISSN: 0095-0033] |
| SIGSOFT SEN | SIGSOFT Software Engineering Notes [ISSN: 0163-5948] |
| [n.abbr.] | Stanford Law Review [ISSN: 00389765] |
| [n.abbr.] | Software Qualilty Journal [ISSN: 0963-9314] |
| STHV | Science, Technology & Human Values [ISSN: 0162-2439] |
| ToIT | Transaction on Internet Technology [ISSN: 1533-5399] |
| ToSEM | Transactions on Software Engineering Methodology [ISSN: 1049-331X] |
| Ubiquity | Ubiquity - The ACM IT Magazine and Forum [ISSN: 1530-2180] |
| UB | 'Universitätsbibliothek' = library of university X |
| ULB | 'Universitäts- & Landesbibliothek' = library of university and state X |
| [n.abbr.] | University of Chicago Law Review |
| [n.abbr.] | University of Illinois Law Review |
| [n.abbr.] | University of Pittsburgh Law Review |
| wp. | webpage / webdocument without any internal (page)numbering |
| ZGE / IPJ | Zeitschrift für geistiges Eigentum [ISSN: 1867-237x] |

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*The orignal text of the apache license. Specifies the 'Does' and the 'Don'ts'.*

*Apache Software Foundation*: Licenses; 2013 [n.y ], FreeWeb/Html ⟨URL: `http://www.apache.org/licenses/`⟩ – reference download: 2013-02-25
*Tells the history of the Apache Licenses and marks the releases 1.0 and 1.1 as 'historical' - only release 2.0 has been classified as an open source license by the OSI.*

*Bretschneider, Ulrich*, *Rainer Glaschick*, a. *Gernot Gräfe*: Ratgeber für die Veröffentlichung von Open-Source-Software durch eine Hochschule; in: *Michael Asche et al., editors:* Open Source. Kommerzialisierungsmöglichkeiten und Chancen für die Zusammenarbeit von Hochschulen und Unternehmen; Münster, New York, München [... etc.]: Waxmann, 2008 (= POWeR / Patent Offensive Westfalen Ruhr, [Vol./No.] 3), Print, ISBN 978–3–8309–1845–5, pp. 167–188
*This article summarizes basic aspects of an Open Source publication succesfully. It addresses the (German) difference between copyright ('Urheberecht') and transferring the right to use ('Nutzungsrecht'). It mentions the problem of liability. It discusses the choice of an Open Source License with respect to the indented purpose and many things more. Nevertheless the article can't be taken as the sought-after 'Open Source Compendium': it doesn't analyze in which cases a University perhaps must publish its' developments or what it must do for fulfilling the licenses of internally (re-)used and distributed Open Source Software.*

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*The book tries to detect why specific OS-licenses are chosen. Game theoretic aspects shall help to answer the question. Thereto OS-licenses are classified as 'permissive', 'restrictive' and 'highly restrictive' licenses. This differentiation highlights some necessary constraints for respecting a license. But the names of these categories are generated with respect to a company which wants to be able to (re)use and (re)sell OS code with minimal restrictions. The intention of the OS licensors to defend the licensed freedom for revocations is not covered by these names.*

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*The English version of the EPL - due to the OSI (http://opensource.org/licenses/EUPL-1.1) also the translations have been certified*

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*Fogel, Karl*: Producing Open Source Software; How to Run a Successful Free Software Project; Beijing, Cambridge, Köln [...]: O'Reilly, 2006, Print, ISBN 978–0–596–00759–1

*Well known english written standard work. Focuses on the process of developing Open Source Software. Licences are discussed in a small chapter. Describes very clearly the concepts of 'Free Software', 'Open Source Software', 'FLOSS' and so on. Analyzes also the topic 'License Compatibility'.*

*Free Software Foundation*: GNU General Public License, version 2; 1991 [n.y. of the html page itself], FreeWeb/HTML ⟨URL: `http://www.gnu.org/licenses/gpl-2.0.html`⟩ – reference download: 2013-02-05

*The GPL-2.0 license, using a strict copyleft. The first release was published in 1989. One of the main authors is probably Richard M. Stallman itself, even if today the Free Software Foundation is the copyright holder.*

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*This page presents quintessences concerning the topic 'Open Source' - in form of a FAQ list*

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*This page describes the targets and the history of ifross, the 'Institut für Rechtsfragen der Freien und Open Source Software'. It was founded in 2000 as a private institute which shall accompany the phenomenon 'free software' from the viewpoint of (German) lawyers.*

*ifross*: License Center; 2011 [n.y.], FreeWeb/HTML ⟨URL: `http://www.ifross.org/ifross_html/lizenzcenter-en.html`⟩ – reference download: 2013-02-26

*This page lists many more (Open Source) Licenses than the OSI itself. It's classifying the Open Source Licenses in those without copyleft-effect, in those with strict copyleft-effect and in those with restricted copyleft-effect - one of the most sophisticated and elaborated considerations!*

*Jaeger, Till* a. *Axel Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software; 1st edition. München: Verlag C.H. Beck, 2002, Print, ISBN 3406484026

*This is the first edition of the most important German standard work concerning Open Source Software Licenses. It deals with many important topics like liability, patents, or branding, And with respect to each of the mentioned licenses (or license clusters) it discusses already the rights and the duties of the software user - but regrettably not in form of a processable todo-list and not with distinguishing the different use cases of the software development process. But nevertheless: it's a very important groundwork!*

*Jaeger, Till* a. *Axel Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software; 2nd edition. München: Verlag C.H. Beck, 2006, Print, ISBN 3406538037

*This is the second strongly expanded edition of the most important German standard work concerning Open Source Software Licenses. Like ifross it classifies licenses as those with 'strict copyleft clauses', those with 'restricted copyleft-clauses' and those without any 'copyleft-clauses'. Beside other aspects it now discusses how to achieve acceptance of an Open Source licensing and analyzes the AGB side effects. And again it discusses the rights and the duties of the software user, at least with respect to the most import Open Source Licenses - but again regrettably not in form of a processable todo-list and not with distinguishing the different use cases of the software development process. But naturally: it remains a very important groundwork!*

*Jaeger, Till* a. *Axel Metzger*: Open Source Software. Rechtliche Rahmenbedingungen der Freien Software; 3rd edition. München: Verlag C.H. Beck, 2011, Print

*This is the third current edition of the most important German standard work concerning Open Source Software Licenses. It retains the 'established structure of the chapters', adds new licenses and discusses - beside many other aspects - the compatibility respectively combinability of different licenses. Hence this work again specifies the rights and the duties of the software user, at least with respect to the most important licenses - but again regrettably not in form of a processable todo-list and not with distinguishing the different use cases of the software development process. But it retains the most important groundwork!*

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*The book analyzes the liability of authors and distributors of GPL licensed software. This is necessary because in Germany the NO-Warranty clauses of the GPL are not applicable. They are substituted by the rules of 'gifts'. In this sense private authors and distributors are only liable in case of acting deliberately ["vorsätzlich"] or strongly negligently ["grob fahrlässig"]. Additionally commercial distributors must thouroughly check whether a program might damage a customer. But commercial distributors have the full liability for their additionally offered specific services. Beside the 'AGB' character and the typus of GPL as a contract the book refers the idea of Open Source seriously.*

*Open Source Initiative*: GNU General Public License, version 2 (GPL-2.0). Version 2, June 1991; 1991 [n.y. of the html page itself], FreeWeb/HTML ⟨URL: `http://opensource.org/licenses/GPL-2.0`⟩ – reference download: 2013-02-05

*The Gnu Public License 2.0 as it is offered by the OSI*

*Open Source Initiative*: Apache License, Version 2.0; 2004 [n.y. of the page itself], FreeWeb/HTML ⟨URL: `http://opensource.org/licenses/Apache-2.0`⟩ – reference download: 2013-02-07

*The Apache 2.0 license, as it is presented by the OSI*

*Open Source Initiative*: Eclipse Public License, Version 1.0; 2005 [n.y. of the page itself], FreeWeb/HTML ⟨URL: `http://opensource.org/licenses/EPL-1.0`⟩ – reference download: 2013-02-20

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*Open Source Initiative*: The BSD 3-Clause License; 2012 [n.y.], FreeWeb/HTML ⟨URL: `http://www.opensource.org/licenses/BSD-3-Clause`⟩ – reference download: 2012-07-04

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*This page lists the ten rules which together specify under which conditions a specific license can be classified as Open Source license. It presents the Open Source Definition. So, a piece of software is only then Open Source Software, if its license has been approved as an Open Source License by the Open Source Initiative.*

*Open Source Initiative*: The Open Source Initiative; 2012 [n.y.], FreeWeb ⟨URL: `http://www.opensource.org/about/`⟩ – reference download: 2013-01-22

*By this page the Open Source Initiative describes itself, its' targets and goals.*

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*Thread discussing a new license taxononmy.*

*Open Source Initiative*: Microsoft Public License (MS-PL); 2013 [n.y.], FreeWeb/HTML ⟨URL: `http://opensource.org/licenses/MS-PL`⟩ – reference download: 2013-02-26
*The Microsoft Public License, as it is presented by the OSI*

*Open Source Initiative*: Mozilla Public License 2.0 (MPL-2.0); 2013 [n.y.], FreeWeb/HTML ⟨URL: `http://opensource.org/licenses/MPL-2.0`⟩ – reference download: 2013-02-07
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*Rosen, Lawrence*: Open Source Licensing. Software Freedom and Intellectual Property Law; Upper Saddle River, New Jersey: Prentice Hall PTr, 2005, ISBN 0–13–148787–6
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*Stallman, Richard*: Viewpoint: Why "Open Source" Misses the Point of Free Software; in: Commununications of the ACM, 52 June (2009), No. 6, pp. 31–33 ⟨URL: `http://doi.acm.org/10.1145/1516046.1516058`⟩ – reference download: 2011-12-29, BibRef/PDF
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*This article has defined the four constitutive features of free software: the freedom to run a program without any restrictions, the freedom to study how it works, the freedom to redistribute copies of the work and the freedom to improve it and to release the improvements. Additionally the article helps to interpret these features: The accessability to the sourcecode for example is a necessary condition, not a value itself. Or there might be free software which is not copyleft software.*

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*Illuminates the attempt to (re-)amalgamate the split Free Software movement and Open Source movement at least on the level of meta-concepts by simply linking the majuskels of Free, Libre, Open, Source, Software as hybrid concepts. 'Libre' is introduced to resolve the ambiguity of 'free' in the sense of 'freedom'.*

*Wikipedia (en)*: MIT License; n.l, 2011, FreeWeb/HTML ⟨URL: `http://en.wikipedia.org/wiki/MIT_License`⟩ – reference download: 2011-09-20

*The article explains clearly that there doesn't exist one single MIT-License: one must distinguish between the simpler MIT-expat-License and the more complex MIT-X11-License. But basically the two license denote the same license class. They protect the developer, not the code.*

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*May be read as an example for the use of the concept 'permissive free software licenses'.*

*Wikipedia (en)*: Shared source; n.l, 2013 [n.y.], FreeWeb/HTML ⟨URL: `http://en.wikipedia.org/wiki/Shared_source`⟩ – reference download: 2013-02-26

*Brief summary of the different license models of Microsoft which also explains the difference between the permissive license MS-PL and the weak copyleft license MS-RL.*

*Williams, Sam*: Free as in Freedom. Richard Stallman's Crusade for Free Software; Beijing [... etc.]: O'Reilly, 2002, Print, ISBN 0–596–00287–4

*This is the first(?) biography of RMS. It contains so many interviews and background information that it might be read as primary source, not only for the history of RMS, but also for the history of the Free Software movement and its internal counterpart, the Open Source movement.*