# License Profile: The Eclipse Public License

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# Abstract

The Eclipse Public License ("EPL") is an open source license that is widely used in various open source projects, most notably by the Eclipse Foundation. The EPL is often described as a weak copyleft license, and contains a narrower and, some argue, more precise reciprocity obligation than that of the GNU General Public License ("GPL"). Further, the EPL includes a patent retaliation provision intended to discourage patent litigation, but still limited in scope so as to not scare off companies with large patent portfolios. This article provides a summary and overview of the EPL.

#### Keywords

Eclipse Public License; Law; information technology; Free and Open Source Software;

# 1: License History and Usage

The Eclipse Public License version 1.0 ("EPL") is an open source license intended to be business friendly, while still supporting and encouraging collaborative open-source development, through its weak copyleft features.<sup>1</sup> The EPL is most notably used by the software projects hosted by the Eclipse Foundation, but is also the default license for new projects within the Linux non-profit organization Linaro.<sup>2</sup> Furthermore, the EPL was the

<sup>&</sup>lt;sup>1</sup> Eclipse and Eclipse Foundation Home Page, <u>http://www.eclipse.org/</u>. The Eclipse Foundation is a not-for-profit, member supported corporation that hosts the <u>Eclipse projects</u> and helps cultivate both an open source community and an ecosystem of complementary products and services. (*see <u>http://www.eclipse.org/org/</u>* (last visited March 16, 2015). The full text of the EPL is available at: <u>http://www.eclipse.org/legal/epl-v10.html</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>2</sup> Linaro, Home Page, <u>http://www.linaro.org/</u>. Linaro sets out its license selection and approval process on a webpage that is available at: <u>https://wiki.linaro.org/TSC/LicenseSelection</u> (last visited March 16, 2015). Linaro is a not-for-profit engineering organization consolidating and optimizing open source Linux software and tools for the ARM architecture.

default license for the Symbian mobile operating system stewarded by Symbian Foundation, now transitioned to a licensing-only organisation.<sup>3</sup> Although open source license usage

statistics remain a controversial topic, it is still worth noting that the EPL currently occupies the  $10^{th}$  spot on the Open Source License Top 20 Rank published by Black Duck Software, Inc.<sup>4</sup>

The EPL is derived from the Common Public License version 1.0 ("CPL"), which was published by IBM.<sup>5</sup> The EPL introduces very few changes to the CPL, with the only significant one being that the scope of the patent retaliation clause is considerably narrower. The EPL conforms to the Open Source Definition, and was approved by the Open Source Initiative in May 2004.<sup>6</sup> The agreement steward for the EPL is the Eclipse Foundation whereas for CPL it was IBM. In the form of Frequently Asked Questions, the Eclipse Foundation has provided guidance on how to best apply the EPL.<sup>7</sup>

The EPL is classified as a copyleft license. This means that it supports a reciprocity concept just like as the GNU General Public License ("GPL"),<sup>8</sup> GNU Lesser General Public License ("LGPL")<sup>9</sup> and Mozilla Public License ("MPL),<sup>10</sup> in that changes and additions to the software that are being distributed must be made available in source code form and under the applicable open source license. Although the scope of changes and additions that the EPL requires to be published are narrower than required by the GPL, thus the characterization of the EPL as a "weak" copyleft license the EPL, arguably, do require closer attention from software developers and in-house legal counsels that consider using EPL software, as compared to permissive licenses such as the Apache License 2.0,<sup>11</sup> BSD license<sup>12</sup> or MIT license.<sup>13</sup>

<sup>&</sup>lt;sup>3</sup> Symbian Home Page, <u>http://licensing.symbian.org/</u>. The Symbian source code is still available at: <u>http://code.google.com/p/symbian-incubation-projects/</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>4</sup> See the Open Source License Data available at: <u>http://osrc.blackducksoftware.com/data/licenses/</u> (last visited March 16, 2015). The Open Source License Data shows the top 20 licenses used in open source projects in Black Duck's Knowledgebase.

<sup>&</sup>lt;sup>5</sup> IBM, Common Public License Frequently Asked Questions Page, <u>http://www.ibm.com/developerworks/opensource/library/os-cplfaq/index.html</u>. The full text of the CPL is available at: <u>http://www.eclipse.org/legal/cpl-v10.html</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>6</sup> See the Open Source Definition of the Open Source Initiative (OSI), available at: <u>http://www.opensource.org/docs/osd (</u>last visited March 16, 2015).

<sup>&</sup>lt;sup>7</sup> See the Eclipse Public License (EPL) Frequently Asked Questions Page, available at: <u>http://www.eclipse.org/legal/eplfaq.php</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>8</sup> The full text of the GPL is available at: <u>http://www.gnu.org/licenses/gpl.html</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>9</sup> The full text of the LGPL is available at: <u>http://www.gnu.org/licenses/lgpl.html</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>10</sup> The full text of the MPL 2.0 is available at: <u>http://www.mozilla.org/MPL/2.0/</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>11</sup> The full text of the Apache License 2.0 is available at: <u>http://www.apache.org/licenses/LICENSE-2.0.html</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>12</sup> The full text of the BSD license is available at: <u>http://www.opensource.org/licenses/bsd-3-clause</u> (last visited March 16, 2015).

The narrow copyleft scope, together with the conventional legal language used in the license and the possibility of relicensing EPL programs in object code under proprietary licensing terms, have led many to describe the EPL as a business friendly license.<sup>14</sup> Finally, in terms of length, the EPL is far longer than the BSD and MIT licenses, roughly equal in size to the Apache License 2.0, and significantly shorter than the GPL 3.0.

# **2:** Content of the License

The EPL starts off with a list of definitions, and continues with the copyright and patent license grants. These are followed by a list of requirements for distribution of EPL programs in object code and source code form. The EPL concludes with warranty and liability disclaimers and a number of general provisions.

# 2.1: Key Definitions

The definitions in the EPL, albeit few and short, are key to an understanding of the EPL.

# **Contributors and Recipients**

There are two types of parties defined in the EPL: Contributors and Recipients. "Contributors" means any person or entity that distributes the EPL program, whether modified or not. Including mere re-distributors in the definition could appear somewhat odd, especially since the lay meaning of the word contributor arguably includes only persons or entities who add code to the program (i.e. one who "contributes"). However, most other open source licenses do also limit the definition of Contributors this way.<sup>15</sup> "Recipients" means anyone who receives the Program under the EPL, including all Contributors. Recipients are often called "you" in other open source licenses.

# Contribution and Program

The definition of "Contribution" is two-fold and covers either (a) the initial software distributed under EPL, or (b) certain changes and additions made to that software. Depending on the context, the term Contribution will have either of these meanings, but never both. Conversely, the term "Programs" means the Contributions that are distributed in accordance with EPL, i.e. both (a) the initial software distributed under EPL and (b) certain changes and additions made to the software. Consequently, when a company creates changes or adds to the Program, the change or addition is a Contribution and becomes part of the Program.

Focusing again on the definition of "Contribution", its most important aspect is that it also describes the scope of the changes and additions that are covered by the copyleft scope of the

<sup>&</sup>lt;sup>13</sup> The full text of the MIT license is available at: <u>http://www.opensource.org/licenses/mit-license.php</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>14</sup> Heather J. Meeker, The Open Source Alternative: Understanding Risks and Leveraging Opportunities 41 (John Wiley & Sons, Inc., 2008).

<sup>&</sup>lt;sup>15</sup> See the Apache License 2.0 (article 1) and the MPL 2.0 (article 1.1).

EPL. This is addressed in Section 2.5 below. It should be noted that the term "Contribution" includes not only software code, but also documentation. This is different from many other open source licenses that cover solely software.<sup>16</sup>

# 2.2: Copyright License Grant

The EPL has a broad and very permissive copyright license grant, presumably modelled after the statutory rights enumerated in Section 106 of the US Copyright Act. The grant is "nonexclusive, worldwide and royalty-free" and includes the rights to "reproduce, prepare derivative works of, publicly display, publicly perform, distribute and sublicense the Contributions of such Contributor, if any, and such derivative works, in source code and object code form". This broad copyright license grant is similar to other "modern" open source licenses, like the Apache License 2.0. Note that the "older" licenses, like the BSD and MIT, have simpler and more ambiguous license grants, such as: "Redistribution and use in source and binary form, with or without modification, are permitted…".

The EPL copyright license grants rights from each Contributor. Thus, the user does not receive a full sub-license from the person or entity that distributed the EPL program, but rather a separate license from each author to their respective portions. This reflects what is often called the direct licensing model of open source software.<sup>17</sup> This model is implicit in many open source licenses, and is most clearly spelled out in article 10 of the GPL 3: "Each time you convey a covered work, the recipient automatically receives a license from the original licensor..." It should though be noted that the EPL license grant still includes the right to sublicense the Contributions. This may seem contradictory in light of the aforesaid, but it is not inconsistent because the EPL allows sublicensing in object code form under proprietary license terms in Section 3.

# 2:3 Patent license grant

The EPL also contains an express patent license grant, seemingly based on US statutory law. This differs from the BSD and MIT licenses which do not even mention patents. The EPL patent license grant is "non-exclusive, worldwide, royalty free" and includes the rights to "make, use, sell, offer to sell, import and otherwise transfer the Contribution of such Contributor, in source code and object code form".

The license is granted from each "Contributor", which, as mentioned above, covers any person or entity that merely distributes the unmodified versions of the Program. This might lead the reader to fear that by engaging in the mere act of re-distribution of an EPL program one would, as a result, also be granting a license to any patent that he or she owns should those patents read on any part of the EPL program. This is certainly not the intention. The EPL patent license explicitly limits the grant to "the Contributor of such Contributor", i.e. to the distributor's modifications, if any. If the Contributor does not make any changes to the Program, no patent license is granted. This is a logical result of the direct license model

<sup>&</sup>lt;sup>16</sup> See for instance the MPL 2.0 (article 1).

<sup>&</sup>lt;sup>17</sup> Heather J. Meeker, *supra* note 14, at 29.

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employed by the EPL, where the rights are granted directly from each author to all licensees. The same approach is taken by all major copyleft licenses.<sup>18</sup>

The license also grants rights under the "Licensed Patents". This term covers patent claims licensable by a Contributor that are necessarily infringed by the use or sale of its Contribution alone or when combined with the Program. The license though applies only to the combination of the Contribution and the Program, if, at the time the Contribution is added by the Contributor, such addition causes such combination to be covered by the Licensed Patents.<sup>19</sup> Note the use of the words "at the time" – the patent license does not cover subsequent downstream modifications. The patent license also does not cover combinations of the Contribution with any software other than the Program. This is a logical limitation, which is found in most open source licenses. Contributing entities, especially corporations with large patent portfolios, would want to be able to review and track which of their patents are being exposed to licensing by their Contributions.<sup>20</sup> Finally, the license will not cover a Contributor's pending patent applications if the application has not been issued as a patent at the time the Contribution was added.

# 2.4: The EPL Copyleft

# The Reciprocity Obligation

The EPL is a copyleft license and thus it contains a so-called reciprocity obligation. A reciprocity obligation implies, somewhat simplified, that changes and additions to the open source program that the user elects to distribute must be made available in source code form and under the original open source license terms. The EPL spells out the reciprocity obligation in Section 3, which states that when the Program is made available in source code form, it must be made available under the terms and conditions of the EPL. As mentioned above, the term "Program" includes the Contributions, which in turn include certain changes and additions made to the Program by the user. This is much like the GPL 3.0, although the scope of the copyleft is narrower, as outlined below.

The reciprocity obligation also follows indirectly from the EPL patent license grant: The license is granted by Contributors, which include distributing entities, and covers "Contributions," which comprise the changes and additions the distributing entity has made.

For clarity, the reciprocity obligation in the EPL is, according to its Section 3, triggered first when the changes and addition are distributed. This also follows from the definition of Contributions, which only covers changes and additions that originate from "and are

<sup>&</sup>lt;sup>18</sup> Note, however, that under article 10 of the GPL 3.0, the distributor of the GPL 3.0 software is prohibited from imposing "further restrictions". This means that the distributor may not impose a license fee, royalty, or other charge for exercise of rights granted under the GPL 3.0.

<sup>&</sup>lt;sup>19</sup> Lawrence Rosen, Open Source Licensing – Software Freedom and Intellectual Property Law 165 (Prentice Hall 2004), *available at*: <u>http://www.rosenlaw.com/pdf-files/Rosen\_Ch08.pdf</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>20</sup> For a good summary of patent portfolio management aspects of open source contributions, see Heather J. Meeker, *supra* note 14, at 98.

distributed by" the particular Contributor. Changes and additions made solely for internal use are thus not within the scope of the reciprocity obligations of the EPL.

# Scope of the Copyleft

The EPL is normally referred to as a "weak" copyleft license since the scope of the changes and additions that are covered by the reciprocity obligation in the EPL are narrower than under "strong" copyleft licenses like the GPL 3.0. The scope of the EPL copyleft is set out in the definition of Contribution.

First, "changes" to the Program always fall within the definition of a "Contribution" so "changes" are always considered to be covered by the scope of copyleft.

Second, "additions" to the Program are also considered to be Contributions unless both of the following conditions are met:

(1)The addition is a separate module of software. The term "module of software" is not defined in the EPL.

(2)The addition is not a derivative work of the Program. The term "derivative work" is not defined in the EPL, but the term would most certainly be construed in accordance with the U.S. Copyright Act because the EPL is governed by the laws of the state of New York and the intellectual property laws of the United States and because the EPL FAQs state that the Eclipse Foundation interprets the term "derivative work" in a way that is consistent with the U.S. Copyright Act's definition.

It is notable that the two conditions are conjunctive – a software addition placed in a separate module from the original EPL program could still be covered by the reciprocity obligation if it constitutes a derivative work of the EPL program. The EPL FAQs give little concrete guidance on the matter but do however explain that merely interfacing or interoperating with Eclipse plug-in APIs (without modification) will not make an Eclipse plug-in a derivative work. The FAQs do not rule out that linking to Eclipse program could create a derivative work.

Some believe that the EPL contains a rather clearly defined scope of copyleft<sup>21</sup> or that it is at least clearer than that of the GPL, which many believe raises doubts as to whether the linking and other software communication methods may or may not be covered by GPL's reciprocity obligation.<sup>22</sup> But this may not be a completely correct analysis; distinguishing between what is a change (which always falls within the definition of a Contribution) and what is an

<sup>&</sup>lt;sup>21</sup> When announcing the open sourcing of the Symbian platform, the Symbian Foundation made the following statement showing its preference for the EPL's more clearly defined boundaries: "The Symbian Foundation has instead chosen the EPL because it wants to be absolutely clear about this: device manufacturers will be able to add new features and support new hardware without having to make all of that code open source, except where they are changing or making certain additions to EPL code supplied by the Symbian platform." Note that the Symbian Foundation has now transitioned to a licensing only authority. See http://licensing.symbian.org (last visited March 16, 2015). See also http://en.wikipedia.org/wiki/Eclipse\_Public\_License (last visited March 16, 2015) (describing the EPL license).

addition (which may not fall within the definition of a Contribution) may not always be an easy thing to determine in practice, secondly, the concept of derivative works as applied to software is also far from clear-cut.

# 2.5: Distribution Requirements

# General Requirements

Section 3 of the EPL includes a couple of general requirements for the distribution of the EPL software, and certain specific requirements for object code and source code distribution, both of these requirements are explained in the subsequent chapters and summarized below.

First, Contributors may not remove or alter any copyright notices contained within the Program. This is a standard requirement found in most open source licenses, particularly historic licenses such as the BSD license. Second, the EPL requires each Contributor to identify itself as the originator of its Contribution, in a manner that reasonably allows subsequent Recipients to identify the originator of the Contribution. The requirement reflects what is considered to be a good practice in open source communities. The identification is normally done by placing appropriate copyright notices in the header of each source file and/or in separate contributor text files.

# **Object Code Distribution**

The EPL permits a Contributor to distribute the EPL program in object code form under its own license agreement provided that the Contributor complies with the EPL and the license agreement contains effective warranty disclaimers and liability exclusions. Section 3 of the EPL contains the precise wording of these requirements.

The EPL does not require the source code of the program to be made available together with the object code, but the Contributor's license agreement must state that the source code of the EPL program is available from the Contributor and inform licensees how to obtain it in a reasonable manner on or through a medium customarily used for software exchange. For this reason, it may sometimes be advisable to distribute the relevant source code simultaneously with the object code, especially if the distributor wishes to avoid the added work of having to monitoring future requests and dealing at a later date with its obligation to provide the source code. On the other hand, if the strategy is to deter users from making derivative works of the EPL software, it may be wise to only attach a pointer to the source code and thus require an explicit action by the user to obtain it.<sup>23</sup>

<sup>&</sup>lt;sup>22</sup> See Heather J. Meeker, supra note 14, at 183-221 (giving a further description of the "linking debate."); see also Lothar Determan, Dangerous Liaisons – Software Combinations as Derivative Works? Distribution, Installation and Execution of Linked Programs under Copyright Law, Commercial Licenses and the GPL, 21 BERKELEY TECH. L.J. 1421, 1291 (2006); Van Lindberg, Intellectual Property and Open Source, A Practical Guide to Protecting Code 226-238 (O'Reilly Media, Inc., 2008).

<sup>&</sup>lt;sup>23</sup> See Apache Software Foundation Legal Previously Asked Questions Page, <u>http://www.apache.org/legal/resolved.html#category-b</u> (last visited March 16, 2015)

# Source Code Distribution

When an EPL program is made available in source code form it must be made available under the terms of the EPL. Unlike the GPL 3.0, the EPL does not explicitly state that the distributor may not impose any other terms on others with respect to the Program. Further, in connection with source code distribution, a copy of the EPL must be included with each copy of the Program. The EPL does not specify exactly how the copy of the EPL must be included in the distribution.

# Specific Responsibility for Commercial Distributors

Section 4 of the EPL stipulates a specific additional responsibility for commercial distributors of EPL programs: Contributors who include the Program in a commercial product offering should do so in a manner that does not create potential liability for other Contributors. This implies that commercial distributors accept an indemnity obligation with respect to losses, damages and costs arising from claims against the other contributors. The indemnity obligation expressly excludes any claims or losses related to intellectual property infringement.<sup>24</sup>

# **2.6: Other Provisions**

# Warranty and Liability Disclaimers

Sections 5 and 6 of the EPL contain a warranty disclaimer and a limitation of liability which are not very different from those found in most other open source licenses. Furthermore, Section 2(c) contains language that overlaps somewhat with the aforementioned sections and stipulates that the Contributors provide no assurances that the Program does not infringe any third party intellectual property rights. The same section also clarifies that if a third party patent license is required to allow the Recipient to distribute the Program, then it is the Recipient's responsibility to acquire that license before distributing the Program.

#### Patent Retaliation

The EPL also contains a specific provision variably known as a patent termination, patent retaliation or patent defence clause. The basic message conveyed in such a clause is that a licensee cannot take advantage of both using the open source software and at the same time alleging that the software infringes his patents. This discourages patent litigation and is certainly not an unreasonable bargain. More specifically, Section 7 of the EPL provides that a Recipient that institutes patent litigation alleging that the EPL program infringes the Recipient's patent will see his patent license terminated. The EPL patent termination clause is often described as a "weak" one, mainly because it is triggered only by infringement actions concerning the licensed EPL program. This is contrary to the patent termination clause in the

<sup>(</sup>recommendation of Apache Software Foundation for usage of code subject to weak copyleft licenses).

<sup>&</sup>lt;sup>24</sup> For a further analysis of Section 4 of the EPL, see Lawrence Rosen, *supra* note 19, at 173.

EPL's predecessor, the CPL, as well as the MPL 1.1, where the patent license would terminate for the institution of patent litigation against a contributor with respect to any software (not only the licensed program). Such strong patent termination clauses were generally considered as as overbroad.

Further, under the EPL the institution of patent litigation would terminate the patent license only and not the copyright license. This is different from the MPL 2.0 and the Common Development and Distribution License ("CDDL"),<sup>25</sup> where both the copyright license and the patent license terminate if patent litigation is instituted. Finally, it should be mentioned that under the EPL a cross claim or counterclaim for patent infringement would also lead to the loss of the patent license. This is similar to the Apache License 2.0, but different from the MPL 2.0, which excludes declaratory judgments, cross claims and counterclaims alleging patent infringement from the scope of the patent retaliation clause.

# Governing Law and Disputes

Unlike most other Open Source licenses, the EPL includes a governing law clause. Section 7 of the EPL provides that the EPL is governed by the laws of the State of New York and the intellectual property laws of the Unites States of America. Furthermore, the same section of the EPL includes a mutual jury trial waiver.

# Time Bar

Section 7 of the EPL provides that "No party to this Agreement will bring a legal action under this Agreement more than one year after the cause arose". Note that the one year period begins to run when the claim arose, not when the potential claimant became aware of the claim. There is therefore no tolling of the one year time bar for failure to discover the claim. Such a clause is not common in other open source licenses.

# **3:** Compatibility

# 3.1: EPL and GPL

The EPL and GPL are generally considered to be incompatible. This means that components licensed under these licenses will be difficult to use in a common environment if they would interact in such a way that either of them would constitute a derivative of the other. According to the Eclipse Foundation, the EPL and GPL are not compatible in any combination where the result would be considered either (a) a "Contribution" under the EPL, or (b) a work "based on" the GPL program, as that phrase is used in the GPL.<sup>26</sup> Further, the foundation states that EPL and GPL code may not be combined in any scenario where source code governed by

<sup>&</sup>lt;sup>25</sup> The full text of the Common Development Distribution License is available at: <u>http://www.opensource.org/licenses/CDDL-1.0</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>26</sup> See Eclipse Public License (EPL) Frequently Asked Questions Page, *supra* note 7, question 32, available at <u>http://www.eclipse.org/legal/eplfaq.php#GPLCOMPATIBLE</u> (last visited March 16, 2015).

both licenses are found in the same source code module. This applies to both the GPL 2.0 and GPL 3.0. The Free Software Foundation shares the Eclipse Foundation's view.<sup>27</sup>

# **3.2: EPL and LGPL**

For the reasons given in chapter 3.1 above, the EPL and LGPL are also incompatible. However, since the LGPL copyleft is not as strong as that of the GPL, it is more likely that the LGPL and EPL components may be used in a common environment in a way that is compliant with both licenses. For instance, interaction between such components through dynamic linking should normally be permissible.

# 3.2: EPL and Apache License 1.1 and 2.0

The Apache Licenses 1.1 and 2.0 are on the current list of licenses approved for use by the Eclipse Foundation for use by third party code redistributed by Eclipse projects and further the EPL 1.0 is on the Apache Foundation's "Category B List", that is, the list of those licenses under which software may be included in binary form within an Apache Product (provided that the inclusion is appropriately labelled)<sup>28</sup>. Because the Apache License 2.0 expressly permits the user to relicense the Apache software under additional or different licensing terms, this means that if Apache code is combined with EPL code such that it forms part of a "Contribution", then the original Apache code must, if distributed, be licensed under the EPL.

# **4:** Conclusion

The EPL is a weak copyleft license that, in the author's opinion, successfully manages to balance the open source community's need to incentivize collaborative software development with participating companies' concerns about exposing their proprietary code and patent portfolio. This may mean that we will see increased usage of the EPL in the future, especially if the trend towards increased usage of weak copyleft licenses predicted by some influential Open Source bloggers becomes reality.<sup>29</sup> However, it should be noted that there are some features of the EPL that might play against it. For instance, the scope of the copyleft under the EPL is by no means crystal clear, e.g. because it relies on the concept of derivative work under US copyright law. As applied to software, that concept is very much open and unclear. Further, EPL is not compatible with the GPL 2.0 or GPL 3.0, which may limit its potential usage in software environments dominated by programs governed by these licenses. Thus, it may be argued that MPL 2.0 with its file-based copyleft approach and new-born GPL compatibility provides a more predictable solution for software developers.

<sup>&</sup>lt;sup>27</sup> See FSF's list of Various Licenses and Comments About Them, available at: <u>http://www.gnu.org/licenses/license-list.html#EPL</u> (last visited March 16, 2015).

<sup>&</sup>lt;sup>28</sup> See Eclipse Public License (EPL) Frequently Asked Questions Page, available at <u>http://www.eclipse.org/legal/eplfaq.php</u> (last visited March 16, 2015) and Apache Software Foundation Legal Previously Asked Questions Page, available at <u>http://www.apache.org/legal/resolved.html</u> (last visited March 16, 2015).

 <sup>&</sup>lt;sup>29</sup> See Simon Phipps, *What's next after GPL and Apache*? Infoworld (May 18, 2012) <u>http://www.infoworld.com/d/open-source-software/whats-next-after-gpl-and-apache-193376</u> (last visited March 16, 2015).

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# Strategic Discourse Around Open Source Governance in Asia

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# Abstract

Open Source governance in Asia is of importance for US and European technology businesses. However, the collaborative limits to formal contracts or international treaties require initiatives that facilitate the sharing of best practices in a manner more conducive to far reaching collaboration. With Asian companies increasingly visible around development in certain platform technologies, not least those related to mobile and cloud computing. the terrific opportunity that lies ahead for the global technology industry is to maximise collaboration. This article explains some initiatives that seek to bridge as much as possible the knowledge present in America, Europe and Asia so the most valuable ideas travel to all interested parties.

# Keywords

Law; information technology; Free and Open Source Software; governance; compliance, Asia

Open Source governance in Asia - whether framed from the perspective of compliance, supply chain management or IPR strategy - is a frequently cited topic of importance and potential concern for US and European technology businesses. It encompasses a wide range of interests whether framed from the perspective of suppliers or Eastern competition. However, there has been a certain disconnect in facilitating on-going dialogue between the operating entities across the continents, and there is a limit to what formal contracts or international treaties can accomplish.

The collaborative limits to formal contracts or international treaties are precisely the reason that certain developments in the field of Open Source governance have proven to be so popular and lasting in the Americas and in Europe. Two critical examples are the Linux Foundation Member Counsel Meetings and the European Legal Network, both of which facilitate the sharing of best practices in a manner more conducive to far reaching platform engagement than might be facilitated during traditional market transactions.

Asian companies, while occasionally being part of the above two cited initiatives, have historically been removed from the front lines of international information sharing. Quite a few factors may be behind this, from generic "cultural differences" through to assertions that Asian businesses have a fundamentally different approach to time management and contribution. Discounting more eclectic opinions expressed about the matter, there is probably a kernel of truth in the concept that Asian companies, and in particular Asian professionals, face slightly different motivations, constraints and priorities than their American or European counterparts.

In countries such as Japan and Korea many legal or engineering professionals are closely tied to their companies. When careers advance through internal promotion, it tends to foster a close identification with the culture of one company and this in turn understandably imparts a close alignment with the expectations of that company. While platforms such as Linux may be adopted for cost and convenience reasons, the "DNA" of such corporations, and therefore the primary motivational forces behind employee advocacy and decisions, tends to be focused on company R&D, products and ancillary services.

In countries such as China and much of the rest of the Asia-Pacific/South Asian region there is a higher rate of turnover in staff. Margins are extremely thin, competitive pressures are brutal, and companies appear to be in a race to the bottom in terms of pricing. While individual professionals in such an environment may be more willing to discuss new and better ways of doing things, if the underlying assumption is that time and resources exist to invest in a longterm manner, the explicit business requirements of their individual companies will make "ecosystem contribution" or "good citizenship" approaches a luxury that is simply unavailable.

Of course American and European companies have their differences in terms of both national concerns and larger trends on each continent. While capital and speculative investment may arguably have a tendency to be more readily available and more sustained in the USA compared to much of Europe, it could also be asserted that German and French companies may take a longer-view of engagement with platforms and partners compared to their American counterparts. Each approach has its advantages and disadvantages, and over time the better ideas tend to filter through businesses, sectors and geographies.

The question is therefore "why is it hard for ideas to filter back and forth between Western companies and Eastern companies?" We are facing a situation where communication is not necessarily as effective as it could be. This challenge is broader than Open Source or governance per se, but given that Open Source depends on collaboration for optimal efficiency, it defines the heart of the concern.

One answer to the question may be relatively simple. At meetings in Asia I am told that managers, lawyers and engineers perceive a certain inherent exclusion from discourse in fields such as Open Source. It is pointed out that assumptions regarding the use of English in programming, in strategy discussions and around legal discourse can be problematic. The leap for a German, Spanish or French speaker to discuss topics in English is far less than that which is required for a Chinese, Korean or Japanese native. This linguistic barrier remains a key item cited by Asia-Pacific company representatives for the hesitation or lack of

engagement so often identified as an industry concern.

Building bridges between stakeholders has long been a speciality of community organisations such as Linux Foundation, Open Invention Network, Free Software Foundation Europe and the Software Freedom Law Center. The topic of Open Source governance in Asia and the concept of finding ways to provide more effective dialogue and information sharing has therefore hardly been unaddressed. There are activities under way that are helping to connect parties from the East and West regardless of language, regardless of individual priority, and with the overarching goal of encouraging a shared perception of engagement and participation.

A key example in Asia-Pacific is an understated but important conference held in Japan each year called the Open Compliance Summit. This event is hosted by Linux Foundation Japan under the supervision of their director Noriaki Fukuyasu, and during its three years of existence has developed an explicit policy of encouraging speakers from China, Korea and Taiwan to attend along with experienced figures from major Japanese corporations. The result is the first environment where all of these stakeholders can meet and informally discuss governance issues, and it has proven to be a compelling venue to reiterate key developments from Linux Foundation Member Counsel or European Legal Network activities. While the language used is still primarily English, the environment is designed to support those who use it as a second or third language.

The value of the Open Compliance Summit is that it is perhaps the first event in Asia that fosters an environment where attendees are not expected to simply listen to speeches from international figures but are instead asked "what do you think?" The responses in previous years have revealed interest, comments and suggestions for topics ranging from Linux Foundation's SPDX initiative through to compliance process management inside large companies. The event perhaps most closely aligned in terms of value and desired approach in the Western hemisphere is the European Legal Network Conference, and the Open Compliance Summit provides an excellent cornerstone from which to launch meaningful discourse around Open Source governance concerns in the APEC region.

One challenge for the Open Compliance Summit - beyond the complexity of using the English language as the primary method of discourse - is that it only happens once a year. In a fast moving field such as Open Source, and particularly given the recent climate both of new market development and various IPR challenges, governance topics tend to unfold and benefit from analysis on a more frequent basis. To address this issue, some key stakeholders from the community side of Open Source legal strategy - namely Open Invention Network, Linux Foundation and Free Software Foundation Europe - launched the Asian Legal Network in the first quarter of 2014.

The Asian Legal Network, building on the template provided by the European Legal Network in providing a forum for discourse via round-tables, mailing list and conference, is an initiative to facilitate round-table meetings once per quarter in the Asia-Pacific region. The meetings rotate from country to country, with the focus in the first year of operating being China, Japan and Korea (the CJK nations), and expansion expected in the second year to potentially include India along with increased support for country-specific language use during presentations and round-table discussions.

As with the European Legal Network, the Asian Legal Network is not a formal legal entity and it does not require any formal commitment either on behalf of the individuals participating nor their companies beside one "gentleman's rule", namely adherence to Chatham House Rule to facilitate open discourse around governance topics and the maximisation of sharing around best practice. This is a rule or principle according to which information disclosed during a meeting may be reported by those present, but the source of that information may not be explicitly or implicitly identified.<sup>1</sup> During its first nine months of operation, Asian Legal Network round-tables have addressed the challenge speculative patent trolls can present to the Chinese market, the development of large initiatives and promises around patents in the international market, and an exploration of current trends in the field of copyright compliance.

Any discussion involving many stakeholders will tend to take a while. There are many perspectives to take into account, there is a continually evolving market to consider, and the development of consensus is a process rather than a top-down outcome. However, the Open Compliance Summit and the Asian Legal Network round-tables have already proven that collaborative dialogue around Open Source is both possible and desired in Asia, and they have set in motion a process that has been observed to result in deep and fruitful relationships both in the Americas and in Europe.

These events, primarily focused on legal strategy concerns, align neatly with older events focused more on platform development such as LinuxCon Japan, Korea Linux Forum (both Linux Foundation events) or COSCUP in Taiwan. While no single event covers all the topics of interest to a commercial stakeholder in Open Source, attending a combination of these events provides the opportunity to learn about Open Source technology, to learn how people are deploying such technology, and to understand how to balance risk and opportunity around adopted platforms.

It is probably not premature to suggest that 2015 is the year when Asian companies will be increasingly visible around development in certain platform technologies, not least those related to mobile and cloud computing. Whether considering Tizen and WebOS in Korea, Tencent or Alibaba's cloud infrastructure in China, or enterprise products from Hitachi and Fujitsu in Japan, there is a wealth of advanced technology with Asian companies positioned as lead stakeholders. It is therefore also reasonable to propose that 2015 will also be the year when governance from the perspective of community stakeholding takes deeper root in Asia. The terrific opportunity that lies ahead for the global technology industry is to maximise collaboration as this happens, and to bridge as much as possible the knowledge present in America, Europe and Asia so the most valuable ideas travel to all interested parties.

For those readers based in Asia, it is now a good time to consider whether attending the European Legal Network Conference in Spring 2016 or the Linux Foundation Member Counsel events around LinuxCon North America in Fall 2016 can fit into your schedule. For those readers based in the Americas or Europe, it is probably an excellent time to consider whether participation in a round-table in India or CJK nations (every quarter 2016) or at the Open Compliance Summit (Winter 2015/2016) aligns with your travel. As with the emergence of the European Legal Network events from 2007 onward, the increased discourse provided by new Asian events is playing an important role in connecting stakeholders, and there is substantial strategic value due to the enhanced networking opportunities and dissemination of best practice around governance. This applies equally to supply chain issues, code life cycle management, compliance and community engagement concerns.

<sup>1</sup> http://www.chathamhouse.org/about/chatham-house-rule

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You can learn more about the Open Compliance Summit at the Linux Foundation's dedicated website:

http://events.linuxfoundation.org/events/open-compliance-summit

You can learn more about the Asian Legal Network round-tables by contacting OIN:

http://www.openinventionnetwork.com/contact-us/

This article cited several development-focused events worthy of note in Asia. These are:

Korean Linux Forum:

http://events.linuxfoundation.org/events/korea-linux-forum

LinuxCon Japan:

http://events.linuxfoundation.org/events/linuxcon-japan

COSCUP:

http://coscup.org/

# About the author

Shane Coughlan is an expert in communication methods and business development. He is well known for building bridges between commercial and non-commercial stakeholders in the technology sector. His professional accomplishments include establishing a legal department for the primary NGO promoting Free Software in Europe, building a professional network of over 270 legal counsels and technical experts across 4 continents, and aligning corporate and community interests to launch both the first law journal and first legal book dedicated to Free/Open Source Software. He spearheaded the licensing outreach that elevated OIN into the largest patent non-aggression community in history from Fall 2013.

Shane has extensive knowledge of Internet technologies, management best practice, community building and Free/Open Source Software. His experience includes engagement with the server, desktop, embedded and mobile telecommunication industries. He does business in Europe, Asia and the Americas, and maintains a broad network of contacts.



# Free and Open Source Software & the Mystery of Software Patent Licenses

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# Abstract

Despite the fact that the first FOSS licenses were drafted nearly three decades ago, there still exists great confusion even among the experienced technology lawyers and IT professionals as to what are the actual (express or implied) patent license grants – if any – conferred under the most common FOSS licenses, such as the GPLv2, the BSD license and the MIT license. This article discusses the possible outcomes in the light of a recent FOSS case litigated in California.

# Keywords

Law; information technology; Free and Open Source Software; implied patent license

# After three decades of open source license construction – Still no clarity on the scope of the license grants

Use of free and open source software (FOSS) is wide spread – in fact, FOSS may be found almost everywhere: in operating systems, in business applications, and in many (if not most) consumer devices. The well-known advantages of FOSS include the low acquisition costs, innovative development model through collaboration, and maturity of the software due to reuse.

Despite the fact that the first FOSS licenses were drafted nearly three decades ago, there exists uncertainty even among some experienced technology lawyers and IT professionals as to what are the actual (express or implied) patent license grants – if any – conferred under some of the most common FOSS licenses: the GPLv2, the BSD and the MIT licenses. The reason for this is that there have been so few litigated cases and thus so few judicial decisions to provide needed clarity.

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For a software program to be correctly characterized as "open source", it must meet the Open Source Initiative's Open Source Definition, which requires the free use, copying, modification and distribution of the software.<sup>1</sup> However, the specific license grants under the GPLv2, the BSD and the MIT licenses were drafted using concepts derived mainly from copyright law and not patent law.<sup>2</sup> By way of example, the express license grants under the GPLv2 concern only the exclusive rights of a copyright holder, namely copying, modification and distribution of the code.<sup>3</sup> The exclusive rights of a patent holder as enumerated in 35 U.S.C. Sec. 271(a), *i.e.* the rights to make, use, sell, offer for sale and import, are not mentioned within the license grants of the GPLv2. On the other hand, the GPLv2 includes the so called Liberty or Death clause, which prohibits (also) patent holders from distributing code under the GPLv2 and simultaneously claiming patent royalties from the licensees.<sup>4</sup> Under the BSD license, in turn, redistribution and *use* of the software with or without modification is permitted subject to certain conditions. The BSD license therefore mentions only one of the five enumerated exclusive patent rights: "*use*." The MIT license recites both "*using*" and "*selling*" the software, and therefore mentions at least two of the five enumerated exclusive rights of a patent holder.

# The existence and scope of any patent license grants in popular open source licenses is, to date, unresolved

Due to the ambiguity in the license grants of the most common FOSS licenses, questions have been posed as to what is the actual scope of patent license rights granted under these FOSS licenses, either expressly or implicitly. Specifically, the long debated topic has been whether licensing of software subject to the terms and conditions of the most common FOSS licenses triggers either an express license (based on the use of patent exclusive right verbs like "use" or "sell") or at least an implied patent license under the patents held by the copyright holder(s) and/or the subsequent redistributor(s). To date, these questions remain unresolved, as there has been no definitive federal or state court decisions in the United States (or for that matter,

<sup>&</sup>lt;sup>1</sup> See the Open Source Definition by the Open Source Initiative at <u>http://opensource.org/osd</u>. (Last visited April 14, 2015).

Interestingly, in the 1970s, there was substantial doubt about whether U.S. federal patent, copyright or any other federal protection would extend to computer software; accordingly, most licensing of computer software was accomplished under state trade secret and state confidentiality law protections. In the 1980s, with the passage of the Computer Software Copyright Act Amendments of 1980 (following the CONTU Commission studies in the 1970s), it was made clear that computer software was automatically protected upon creation by the Federal Copyright Act, but the patentability of software remained unclear. It was only with a number of decisions by the Federal Circuit in the 1990s that computer software patent protection was put beyond doubt. Some twenty years later, following the U.S. Supreme Court's decision in Alice v. CLS, 134 U.S. 2347 (2014), there remains no doubt that copyright protection extends to computer software, but the extent to which patent protection is available in the face of subject matter objections under 35 U.S.C. Section 101 has reopened the debate. To date, most post-Alice Section 101 subject matter defence motions have succeeded in invalidating over 80% of the software patents challenged, on Rule 12(b)(6) motions to dismiss. It may be too early to tell if this is just the result of early challenges being against "bad" software patents improperly allowed by the PTO under historical norms, or whether a larger trend toward invalidating most software patents is occurring.

<sup>&</sup>lt;sup>3</sup> Sections 1 and 2 of the GPLv2.

<sup>&</sup>lt;sup>4</sup> Section 7 of the GPLv2.

so far anywhere in the world) directly addressing the scope of any patent rights granted, under or in connection with, FOSS licenses.

The drafters of the GPLv2 were aware of the patent license issue; indeed, to remove the ambiguity regarding the scope of the patent license rights granted under the GPL v2, an explicit patent license was added into the GPLv3 in 2007. However, tens of millions of lines of code may be still governed by the GPLv2; in addition, vast amounts of code are subject to the permissive BSD and MIT licenses, which also do not address patent rights directly. Therefore, even around three decades after drafting of the first of these licenses, a lack of clarity still remains. As one FOSS lawyer put it: "*The topic of what patent rights are licensed under GPLv2 is a subject of controversy—or better said, mystery*."<sup>5</sup>

What then should the FOSS community do to better understand the patent rights granted under, or in connection with, these licenses? Most FOSS compliance policies and procedures only address effectively the copyright issues, whereas the patent issues are often based upon educated guesses as to the exposure to one's own patent portfolio when contributing and/or distributing code under the GPLv2, the BSD and the MIT, or for that matter, what patent rights may have been received from third party patent holders under, or in connection with, these licenses.

The questions regarding any potential exposure to third party patents or to licensing one's own patents may not be of concern to many FOSS users and licensors, since it has not prevented the massive expansion of FOSS during the past three decades, by both independent software development projects as well as corporate users.<sup>6</sup> Nevertheless, due to potential patent exposure – particularly corporate users with large patent portfolios and financial exposure to the patent portfolios of others -- may be less willing to use, or may require more strict review and clearance processes when using, FOSS.

# **Recent FOSS litigations at a glance**

In order to provide some clarity to the unclear patent license grants in some of the commonlyused FOSS licenses, a few attempts have been made in the United States to analyze these licenses in light of patent case law of implied patent licensing and estoppel theories in

<sup>&</sup>lt;sup>5</sup> Meeker, Heather, J.: *Open Source and the Age of Enforcement*. Hastings Science and Technology Law Journal. (Vol. 4.2 Summer 2012) at 281.

<sup>&</sup>lt;sup>6</sup> According to Black Duck, more than 50 % of all corporations are expected to use open source. See Black Duck: 2014 Future of Open Source Survey Results. Available at <u>http://www.slideshare./net/blackducksoftware/2014-future-of-open-source-survey-results?</u> related=1 (Last visited April 9, 2015).

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general.<sup>7</sup> Analysis of this topic in light of European law is even scarcer.<sup>8</sup> Most often the question regarding potential implied patent licenses (under estoppel or other theories), and also patent exhaustion, in the context of FOSS licensing has been stated to be "beyond the scope of this article." While awaiting a definitive court decision on the specific questions regarding the scope of patent licenses under the most common FOSS licenses, guidance for the patent exposure analysis may only be found in court cases concerning implied patent licenses and estoppel in general, supplemented with analysis of the very few FOSS-related court decisions given so far.

Court decisions regarding construction of FOSS licenses are quite rare both in the United States and Europe, and at best give merely guidance on the very basic questions regarding FOSS licenses, such as enforceability, availability of injunctions for breach of license and the license condition versus contractual covenant debate. The first court decisions regarding enforcement of FOSS licenses were given in Europe. The primary issues resolved in early FOSS case law are that GPL is an enforceable license, and that injunctions are available for breach of GPL both in Europe<sup>9</sup> as well as in the United States.<sup>10</sup> Breach of FOSS license terms may also be considered as breach of license conditions may result in a finding of copyright infringement – thus making available the most powerful remedies, such as injunctions and statutory damages. The various benefits conferred by the FOSS licensing model may also constitute consideration – the third element required for enforceable contract in the United States in addition to the elements of offer and acceptance.<sup>11</sup>

# From FOSS enforcement for compliance to enforcement for commercial ends

The first wave of GPL enforcement actions were initiated in Europe by Harald Welte through his gpl-violations.org-project, and in the United States by Software Freedom Law Center (SFLC). These lawsuits have been characterized as "enforcement for compliance." Both Welte and SFLC were successful in requiring the counter parties to obey all the terms and conditions of the GPLv2. By way of example, all of the complaints filed by SFLC with the United States District Court for the Southern District of New York (SDNY) during its first round of GPL violation lawsuits were rapidly settled, and the defendants agreed to appoint Open Source

<sup>&</sup>lt;sup>7</sup> See for example the very often cited writing by Pugh, Adam and Majerus, Laura A.: *Potential Defenses of Implied Patent License Under the GPL* (October 31, 2006) available at <a href="http://www.fenwick.com/docstore/Publications/IP/potential\_defenses.pdf">http://www.fenwick.com/docstore/Publications/IP/potential\_defenses.pdf</a> (Last visited April 14, 2015). See also Haapanen, Anna: Patent Exhaustion and Implied Patent License in Connection with Free and Open Source Software. Research for the LL.M. Degree at Columbia Law School supervised by Professor Eben Moglen. (May 2009) and Nadan, Christian, H.: *Closing the Loophole: Open Source Licensing & the Implied Patent License*. The Computer & Internet Law (Volume 26. August 2009).

<sup>&</sup>lt;sup>8</sup> See Suchomski, Bernd: Proprietäres Patent Recht beim Einsatz von Open Source Software. Eine rechtiliche Analyse aus unternehmerischer sicht. (Medien, Internet und Recht 2011).

<sup>&</sup>lt;sup>9</sup> Welte v. Sitecom Deutschland GmbH, No. 21 O 6123/04 (District Court of Munich I) and Welte v. D-Link Deutschland GmbH, No. 2-6 0 224/06 (District Court of Frankfurt am Main).

<sup>&</sup>lt;sup>10</sup> Software Freedom Conservancy, Inc. v. Best Buy Co., Inc., No. 09 CV-10155 (S.D.N.Y. Jul 27, 2010).

<sup>&</sup>lt;sup>11</sup> Jacobsen v. Katzer, 535 F.3d 1373, (Fed. Cir. 2008).

Compliance Officers and publish the source code for the GPL-licensed programs they were distributing.<sup>12</sup> The second round of GPL enforcement complaints followed shortly thereafter in New York, at SDNY, resulting again in quick settlement of the complaints, and undertakings by the defendants to adhere to the obligations of the GPL.<sup>13</sup> In addition to the GPLv2, the Artistic License has been tested in United States courts. The Court of Appeals for the Federal Circuit held that the terms of the permissive-type Artistic License are enforceable copyright conditions, the breach of which constitutes copyright infringement.<sup>14</sup>

While there is enough case law to establish that FOSS licenses are enforceable, the existing FOSS case law does not yet give much guidance on the scope of license rights actually conferred under the most common FOSS licenses. However, the FOSS community is facing a shift in enforcement actions – from enforcement for compliance to enforcement for commercial ends. By way of example, XimpleWare Corporation sued Versata and Ameriprise – as well as certain other defendants – for copyright and patent infringement based on use of GPL-licensed software. These litigations were clearly initiated for commercial ends, not (merely) for FOSS license compliance.

# High hopes of the XimpleWare litigation to bring greater clarity

FOSS lawyers on the alert for a resolution of the patent issues in the GPLv2 have been waiting for a court decision in the XimpleWare litigation, anticipating that any decision could shed some light on the existence and scope of an implied patent license in the GPLv2. The XimpleWare litigation was mentioned as the number one of the top FOSS legal developments in year 2014, with anticipation that a court might finally interpret the scope of the license grants in the GPLv2.<sup>15</sup> Businesses dependent on GPLv2-licensed software were advised to "watch this case carefully."<sup>16</sup> Unfortunately, no guidance regarding interpretation of the GPLv2 license rights materialized in the form of a very detailed court opinion, since the XimpleWare litigation settled only a few weeks after being identified as a top 10 important case. However, it is still worth revisiting the case – both the Complaints and the various Motions to Dismiss submitted in the litigation – because they provide an interesting window into the arguments that might be made in the future for both rejecting and finding a patent license in the GPLv2.

Starting from the facts, XimpleWare had released an XML parser named VTD-XML under the GPLv2. XimpleWare was also granted three United States patents, and the VTD-XML software licensed under the GPLv2 was asserted by XimpleWare to practice each of the

<sup>&</sup>lt;sup>12</sup> The first round of complaints were filed by SFLC with the Southern District of New York in Fall of 2007 against Monsoon Multimedia Inc., Xterasys Corporation, High Gain Antennas, LLC and Verizon Communications Inc.

<sup>&</sup>lt;sup>13</sup> The second round of complaints were filed by SFLC with the Southern District of New York in summer 2008 against Bell Microproducts, Inc., Super Micro Computer, Inc. and Extreme Networks, Inc.

<sup>&</sup>lt;sup>14</sup> Jacobsen v. Katzer, 535 F.3d 1373 (Fed. Cir. 2008).

<sup>&</sup>lt;sup>15</sup> Radcliffe, Mark: Top 10 FOSS Legal Developments in 2014. (January 12, 2015) Available at: <u>http://opensource.com/law/15/1/top-foss-legal-developments-2014</u> (Last visited April 13, 2014).

<sup>&</sup>lt;sup>16</sup> Williamson, Aaron: Software Litigation Opens Pandora's Box of Key Open Source Issues. (January/February 2015. Landslide. Vol 7. No. 3.)

independent claims of those patents. XimpleWare sued, among others, Versata and its customer Ameriprise, for both copyright and patent infringement based on use of the GPLv2-licensed VTD-XML software.<sup>17</sup> Versata allegedly incorporated the VTD-XML software into its proprietary Distribution Channel Management (DCM) product in violation of the GPLv2 license requirements for source code disclosure and licensing of derivatives only under the GPLv2. Since the VTD-XML software was embedded in the DCM product, XimpleWare claimed that also Versata's products necessarily practiced the independent claims of the XimpleWare patents.

Versata licensed its DCM product to Ameriprise under a proprietary ink-signed (and presumably directly negotiated) Master Licensing Agreement. Ameriprise, in turn, provided the DCM product, including the GPL-licensed VTD-XML software included with it, further to thousands of its franchise-based financial advisors – again allegedly without adhering to the terms and conditions of the GPLv2. XimpleWare also made the VTD-XML software available under commercial license terms, but neither Versata nor Ameriprise had bought a commercial license from XimpleWare. According to XimpleWare, Versata's exploitation of VTD-XML in breach of the GPLv2 constituted wilful infringement of XimpleWare's intellectual property rights due to the unauthorized use, making and selling of the DCM product without abiding by the terms of the GPLv2 license.

Accordingly, XimpleWare brought a suit against Versata and some of its customers, including among others, Ameriprise, United Healthcare Services and MetLife, for copyright and patent infringement. Ximpleware also accused Versata of induced and contributory patent infringement. Further, XimpleWare sought preliminary and permanent injunctive relief against Versata and its customers, seeking to enjoin the manufacture, production and sale of products practicing XimpleWare's patents, as well as an award of treble damages based on wilful infringement of XimpeWare's patents.<sup>18</sup>

As the Court commentary was on early motions and without any trial or evidentiary hearing, the analysis below is based on the pleading stage only. Therefore, it may not be taken to be definitive as to what a Federal Court (or ultimately the U.S. Supreme Court) would decide in the evaluation of any dual licensing approach where FOSS licensing under the GPLv2 is undertaken concurrently with proprietary licensing.

# Arguments against and in favor of express or implied patent license grants in the GPLv2

XimpleWare's complaints, as amended, resulted in a few rounds of motions to dismiss by various defendants. The briefs in support of those motions provide an interesting preview for FOSS lawyers of how the issue of patent licenses in the GPLv2 might be argued. In its Second Amended Complaint against Versata, Ameriprise and other defendants, XimpleWare

<sup>&</sup>lt;sup>17</sup> For more detailed background of the case, see *Ibid*.

<sup>&</sup>lt;sup>18</sup> Complaint, Ximple WareCorp. v.Versata Software, Inc. (No. 3:13-cv-05160-SI) (N.D. Cal. Nov 5, 2013) (Copyright Complaint) and Complaint, XimpleWare Corp. v. Versata Software, Inc. (No. 5:13-cv-05160-SI-PSG) (N.D. Cal. Nov 5, 2013) (Patent Complaint). The Complaint(s) were amended on December 17, 2013 (Amended Complaint) and again on May 31, 2014 (Second Amended Complaint).

claimed that the GPLv2 does not include a patent license, and the Preamble of the GPLv2,<sup>19</sup> where it refers to patents, is not an operative part of the license. According to XimpleWare, only Sections 7<sup>20</sup> and 8<sup>21</sup> of the GPLv2 mention patents, but they do not grant a patent license. Accordingly, XimpleWare claimed that infringement of XimpleWare patents resulted from the use of Versata products without Versata or its customers entering a commercial license with XimpleWare.<sup>22</sup>

In its Motion to Dismiss the Second Amended Complaint, Versata and United Healthcare Services (UHS) noted that under Section 0 of the GPLv2,"the act of running a Program is not restricted." Therefore, any use of VTD-XML to perform the patented method was explicitly licensed under the GPL.<sup>23</sup> UHS also referred to the Court's earlier Order dismissing claims against UHS on this ground. The Court held that "Because an express license is a defense to patent infringement, XimpleWare's direct infringement claims against Versata's customers turn on whether the customers' distribution is licensed under the GPL." Thus, the Court found

If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

- <sup>22</sup> Second Amended Complaint, at 8, 10 and 20.
- <sup>23</sup> Versata Software, Inc., F/K/A Trilogy Software, Inc., Trilogy Development Group, Inc. and Aurea Sotware, Inc. A/K/A Aurea, Inc.'s Notice of Motion and Motion to Dismiss the Second Amended Compliant, No. 5:13-cv-05161-SI-PSG (N.D. Cal. June 13, 2014.) at 6.

<sup>&</sup>lt;sup>19</sup> The preamble of GPLv2 references patents as follows:

<sup>[</sup>A]ny free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

<sup>&</sup>lt;sup>20</sup> Section 7 of the GPLv2 states that:

If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program. If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances. It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

<sup>&</sup>lt;sup>21</sup> Under Section 8 of the GPLv2:

that mere use of XimpleWare's patented source code was explicitly permitted under the GPLv2, while unlicensed distribution of the source code is not allowed.<sup>24</sup> According to UHS, whether the provision in Section 0 of GPLv2 is termed a disclaimer, a waiver, or a statement estopping the licensor from later claiming a restriction against using the program, "GPL's language could not be clearer: running the software is categorically unrestricted." <sup>25</sup>

Other defendants argued that any and all use of the software is permitted by the GPLv2, and thus the patent infringement claims should fail.<sup>26</sup> MetLife and other defendants stated – with reference to the Court's earlier order – that the fact that a patent license is included in the GPLv2 was already decided by the Court. According to those defendants, "The law of the case here is unmistakable. The GPL includes a patent license." <sup>27</sup>

Ameriprise stated – in its first motion to dismiss XimpleWare's First Amended Complaint – that the entire point of open source software is that the software will be free to use. Accordingly, Ameriprise argued that the GPLv2 places no restrictions on any other use of the software, since activities other than copying, distribution and modification are not covered by the license – they are outside its scope, and because the act of running the program is not restricted. Further, according to Ameriprise, it became a licensed user of XimpleWare software when it received the software from Versata and thus retained its rights under the GPL, regardless of whether Versata lost its rights. As making use of the software was not contingent on compliance, and since Ameriprise did not modify the software or distribute copies of it, it had the right to use the GPL-licensed software without any restriction.<sup>28</sup>

UHS further argued that XimpleWare simply gave up its right to seek compensation for the mere use of that software, including compensation for any patent royalties, regardless of whether that use was authorized under a license, a waiver or an estoppel:<sup>29</sup>

Plaintiff chose to distribute its software to the public under the GPL for its own commercial reasons. In so doing, Plaintiff represented to the consuming public that mere use of its software was "not restricted." Plaintiff cannot wish that representation away now that it inconveniences its litigation strategy. Plaintiff's arguments amount to a "bait and switch," seeking to recover payment for mere use that Plaintiff, through its adoption of the GPL, told the world would be unrestricted.

<sup>&</sup>lt;sup>24</sup> Order Granting-in-Part Defendants' Motions to Dismiss, No. 5:13-cv-05161-SI-PSG (N.D. Cal. May 16, 2014) at. 9.

<sup>&</sup>lt;sup>25</sup> United Health Care Solutions' Notice of Motion and Motion to Dismiss the Second Amended Compliant, No. 5:13-cv-05161-SI-PSG (N.D. Cal. June 12, 2014.) at 9 and 10. See also Order Granting-in-Part Defendants' Motions to Dismiss, No. 5:13-cv-05161-SI-PSG (N.D. Cal May 16, 2014).

<sup>&</sup>lt;sup>26</sup> Waddel & Reed Financial Inc.'s Notice of Motion and Motion to Dismiss the Second Amended Compliant, No. 5:13-cv-05161-SI-PSG (N.D. Cal. June 13, 2014.) at 4.

<sup>&</sup>lt;sup>27</sup> Pacific Life Inc. Co., Metropolitan Life Inc. Co., the Prudential Inc. Co of America, Wellmark, Inc. and Aviva USA Corp.'s Notice of Motion and Motion to Dismiss the Second Amended Compliant, No. 5:13-cv-05161-SI-PSG (N.D. Cal. June 13, 2014) at 11.

<sup>&</sup>lt;sup>28</sup> Ameriprise Inc. and Ameriprise Financial Inc.'s Notice of Motion and Motion to Dismiss the Amended Compliant, No. 5:13-cv-05161-SI-PSG (N.D. Cal. Dec. 31, 2013).

<sup>&</sup>lt;sup>29</sup> United HealthCare Services, Inc.'s Reply in Support of its Motion to Dismiss Second Amended Complaint. No. 5:13-cv-05161-SI-PSG (N.D. Cal. July 3, 2013).

# **Decisions from the case**

The Court in the XimpleWare litigation confirmed again in November 2014 that use of software is unrestricted under the GPLv2 – but that distribution is not. According to the Court, the GPL permits distribution only if the distributing party satisfies several specific conditions, such as including a copy of the GPL along with the distributed program.<sup>30</sup> The Court dismissed XimpleWare's direct and wilful patent infringement claims against Versata's customers (except Ameriprise) and indirect patent infringement claims against Versata. However, the direct and wilful patent infringement claims against Versata. However, the case. The Court gave XimpleWare the chance to amend its Complaint for the third time. Before there was any chance to further brief or consider to what extent direct and wilful patent infringement occurred as the result of Versata and Ameriprise's distributions of the GPLv2 licensed software without complying with those licenses, the case was settled.

# Conclusion

The XimpleWare FOSS patent litigation was settled following Mediation on February 10, 2015 through the assistance of a retired federal judge, Hon. James Ware (Ret.), who was appointed as the Federal Mediator for the resolution of both the patent and the copyright claims brought by XimpleWare.<sup>31</sup> Absent settlement of both the patent and copyright infringement proceedings, the litigation would have consumed two trials of substantial duration in the Federal Courts. However, because of the settlement, no further clarification was ever gained in this FOSS litigation regarding the question on the scope of any patent license under the GPLv2, other than the ruling in defendant's earlier motions to dismiss that the right to use is retained, as long as the license conditions of the distribution right are not breached.<sup>32</sup> Therefore, one view of the decisions in the XimpleWare litigation is that it should be safe to assume that the GPLv2 does indeed include a right under the author's patents to at least use the software, since by the terms of the GPLv2, the right to use the software is explicitly unrestricted. Nevertheless, the other statutory patent rights – to make, to sell, to offer to sell, or to import – remain unresolved.

Another view is that the matter will not be settled until one or more definitive appellate rulings make clear whether the GPLv2 includes (or, based on the totality of the circumstances, may trigger) a patent license grant of any type (and if so, what is its scope). In reaching such a conclusion, the patent license grant would likely be analysed by implication – given that – unlike the GPLv3 – the grant would probably be found to not be expressly present in the GPLv2. However, in all cases, all licensing attorneys knowledgeable of the GPL should agree that distribution of the GPL-licensed software is subject to compliance with the terms and conditions of the license, and non-compliance may result in loss of all of the granted rights. Still, many questions regarding the scope and extent of the patent remain until further, more definitive rulings emerge from the courts.

<sup>&</sup>lt;sup>30</sup> Order Granting-In-Part Defendants' Motions to Dismiss. No. 5:13-cv-05161-SI-PSG (N.D. Cal. Nov 25, 2014) at 11.

<sup>&</sup>lt;sup>31</sup> Notice of Settlement. No. 5:13-cv-05161-SI-PSG (N.D. Cal. Feb 10, 2015)

<sup>&</sup>lt;sup>32</sup> Order Granting-in-Part Defendants' Motions to Dismiss, No. 5:13-cv-05161-SI-PSG (N.D. Cal. May 16, 2014) at 9.

# About the author

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# Driven to Tears – GPLv3 and the Automotive Industry

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# Abstract

The automotive industry is moving toward the use of Free and Open Source software (FOSS) in vehicles. GPLv3 is currently presenting a roadblock to greater adoption. Specifically the Installation Information requirement in GPLv3 Section 6 (sometimes called the "Anti-Tivoization" clause) is causing some car makers to fear GPLv3. These car-makers want to lock down all software installed on their cars against user modifications, but fear that using GPLv3 software will prevent them from doing so. Although there may be good reasons to lock down some software on cars, car-makers should not fear GPLv3. One solution the industry may wish to consider to allay concerns about the Installation Information requirement in GPLv3 is to adopt and advocate for use of an "Additional Permission" that excepts users from having to comply with that requirement.

# Keywords

GPLv3; Installation Information; Anti-Tivoization; automotive;

# Car makers and GPLv3: Current Concerns

In the last five years, the automotive industry has begun widely using Free Software.<sup>1</sup> Primarily used for handling media and providing services – such as navigation – FOSS has nonetheless made inroads into an industry that has historically relied on closed-source proprietary software. This cautious movement to Free and Open Source Software ("FOSS") has followed a predictable trajectory not unlike other industries which have discovered GNU/Linux and other FOSS software.<sup>2</sup> The embrace of FOSS software in the automotive industry, in particular software licensed under the GNU General Public License ("GPL"), has

<sup>&</sup>lt;sup>1</sup> E.g., <u>http://projects.genivi.org/what</u>

<sup>&</sup>lt;sup>2</sup> E.g., <u>http://www.comparebusinessproducts.com/fyi/50-places-linux-running-you-might-not-expect</u>

lead to a certain amount of cost savings and improved quality. However, this embrace has not included GPLv3 – and specifically the Anti-Tivoization clause in that license – and the rejection of GPLv3 has been vehement enough to result in "blacklisting".<sup>3</sup> This blacklisting is considered necessary by those who advocate for it in order to prevent users from modifying the software on their vehicle, which is generally prevented by the locking of software onto hardware using cryptographic keys.

Locking the software to the hardware – by signing the original software image with a cryptographic key so that only an image provided by the supplier will boot or install – is a common practice in embedded devices.<sup>4</sup> This process of signing software images – so only images with the right key will boot or install – effectively prevents a user from modifying the software on the device since they have no access to the key needed to allow their modified version to boot or install. This practice was considered by the author of the GPL – Richard Stallman – to violate the spirit of the GPL, and resulted in the addition of the "Installation Information" obligation in GPLv3.<sup>5</sup>

Car makers want the ability to Tivoize the software on their vehicles to ensure that the user does not modify the software on the vehicle's head unit. The major reason claimed by car makers for locking the software on their vehicles is safety.

# **ECU Remapping and Software Locking**

The claim that complying with GPLv3 to allow a user to modify the software in a vehicle based on safety concerns is disingenuous. Drivers have, for many years, replaced parts of their car, such as tires, brakes or sometimes even software.<sup>6</sup> In addition, drivers frequently use off-brand or non-original parts, often because they're considerably cheaper but just as safe and functional. There is even a large after-market for remapping Engine Control Units ("ECUs").<sup>7</sup> ECUs are microprocessors which control fuel mixture, turbo charging, transmission, and other drive train features of the car, almost all of which in some way affect safety and performance. This after-market sells services like ECU remapping to increase performance or to improve fuel economy.<sup>8</sup> While the ECU remapping business is something of a grey market – since it is not fully supported by car makers and can increase the cost of your insurance and void a car's warranty<sup>9</sup> – nonetheless car makers are tacitly supporting this market. Car makers support ECU remapping by making companies that provide that service part of their motor sports stable of advisers, by using data from the ECU re-mappers to understand performance changes resulting from remapping, and generally looking the other way if customers decide to install re-mapped ECUs.<sup>10</sup> Even car dealers may have a hard time

<sup>&</sup>lt;sup>3</sup> See "LFCS: GPLv3 and automobiles" <u>https://lwn.net/Articles/548212/</u>

<sup>&</sup>lt;sup>4</sup> See "It's not just TiVo locking down their hardware" <u>https://www.fsf.org/blogs/licensing/gplv3-lockdown</u>

<sup>&</sup>lt;sup>5</sup> See "Transcript of Richard Stallman on GPLv3 in Brussels, Belgium; 1st of April 2007" http://fsfe.org/campaigns/gplv3/brussels-rms-transcript#tivoisation

<sup>&</sup>lt;sup>6</sup> See "WTF! It Should Not Be Illegal to Hack Your Own Car's Computer" <u>http://www.wired.com/2015/01/let-us-hack-our-cars/</u>

<sup>&</sup>lt;sup>7</sup> See "What is Remapping, and is it Worthwhile?" <u>http://www.moneysupermarket.com/car-insurance/blog/what-is-remapping-and-is-it-worthwhile/</u>

<sup>&</sup>lt;sup>8</sup> *Ibid.* 

<sup>9</sup> Ibid.

<sup>&</sup>lt;sup>10</sup> See "Ford Racing really wants you to mod EcoBoost engines" http://www.roadandtrack.com/car-culture/buying-maintenance/news/a24602/ford-racing-really-

spotting a non-original ECU and would therefore likely not refuse warranty service on an ECU re-mapped vehicle.<sup>11</sup>

Remapping an ECU can be dangerous. Changing the fuel mixture may not cause safety issues, but if you were to significantly increase the power of a car without commensurate changes in handling characteristics you might increase the risk of an accident. Safety issues certainly need to be considered when remapping an ECU. For these reasons, one would expect a similar reaction from the car manufacturers to ECU remapping as the current position on modifications to head unit software; namely, that it is forbidden for safety reasons and technological measures like cryptographic keys would be used to prevent it. That this is not widely the case raises the suspicion that there may be other reasons – other that safety – motivating some car manufacturers to prevent user-modifiable software in the head unit of their cars.

# Software: A New Revenue Driver for Car Manufacturers?

Speculating on those reasons is not hard to do. Car makers are becoming software producers and they are using this new capacity to market modern cars to appeal to contemporary drivers. Software is an opportunity not just to increase safety and performance but to engage the driver and passengers in a way that builds a relationship. Each update is an opportunity to strengthen that relationship, each point where the driver or passenger engages the software is an opportunity for the car makers to build that relationship further, and that relationship can represent an opportunity for significant revenues. These revenues would not necessarily be significant if they are just gathered through sales via a bespoke app store; the revenues from such a bespoke app store may be too low – and the costs of alteration of the relationship between the car vendor and the driver or passenger could be too high – to justify allowing modified software or applications.

What car makers likely want is a way to market new vehicles to younger drivers and to provide seamless and easy to use services to their middle-age customers, as well as to integrate modern notions of mobility and connectivity into their vehicles to appeal to a broad range of customers. Software is a key part of that marketing strategy. In fact, advertising tomorrow's technology manages to sell cars today. This is why we see so much press on the Apple and Google entrance into the In-Vehicle Infotainment ("IVI") market; the anticipation of these companies being connected with systems in a vehicle sells cars now even though it likely won't be widely seen in cars for years.

Preventing a user from changing the software in their car is likely driven by the desire to keep the in-car experience branded. The consequences of diluting that brand, either by blocking branded content, or by causing branded content to work in ways different than the brand owner desires, could result in loss of revenue through diminished brand loyalty, lost accessory sales, and even lost advertising – a business some car companies have stated they'll go into. There is likely a rich trove of data waiting to mined in the vehicle that car makers and others are eager to get a hold of, so as to target advertising. Keeping control over the In-Vehicle Infotainment system, the system that provides media, navigation, and connectivity and runs on the "head unit," is desirable. There is likely an incentive for car makers to try to mitigate the effects any license – like GPLv3 – which facilitates a user's modification of

wants-you-to-mod-ecoboost-engines/

<sup>&</sup>lt;sup>11</sup> *Ibid*.

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software on the head unit in a way that could impede data collection or advertisement targeting.

# Safety: Is It An Issue?

There is, however, some merit to the view that the car makers are not dressing up a commercial need under the guise of a safety-critical concern. Those who stand in the second rank on legal issues – right after the automotive legal team – state that with regard to the GPLv3, the difficulty is with only the Anti-Tivoization clause, and the reason for disfavoring that license is safety. That proposition is worth taking at face value if only to test some of the assumptions made.

Modern cars have around 100 million lines of code running on them, <sup>12</sup> with 70% of that code being in the head unit. Complexity is a non-trivial issue in automotive software design. In addition to being complex, cars can be dangerous. The World Health Organization says that:

[R]oad traffic injuries are the eighth leading cause of death, and as such are an important global public health problem. They are the number one cause of death among those aged 15-29 years. There were approximately 1.24 million road traffic deaths in the world in 2010, 77% of which were among males. Middle-income countries had the highest burden and the highest road traffic death rates. <sup>13</sup>

In the United States deaths in motor vehicles are a serious problem. While the U.S. has reduced deaths by drunk driving over the last few decades via public health advertising, ignition locks, and sobriety checkpoints, deaths are still very high in comparison to other countries. Regulation has a role to play in reducing automobile deaths, and that regulation will directly affect car makers – both how they construct cars and how they are liable for malfunctions.

Regulation in the auto industry is not typically a consideration for many FOSS developers. The GPL and other open source licenses typically disclaim any liability, so when using FOSS, automotive companies may not have the expectation that their suppliers will assume liability for harms resulting from their software. Either the car manufacturers will need to become comfortable that they must assume any liability for the FOSS that they use, or they will have to educate and change the culture of the FOSS software development houses that they hope to work with so as to reduce the potential for the car manufacturers having to take on substantial liability for the use of FOSS.

If an automotive company has to go to court, it often requires its software suppliers, via a contractual indemnity, to shoulder some or all of the legal burden resulting from that software. This would not occur when one uses software that disclaims any liability. In addition, because a global car company is selling into (or having its products operate in) myriad jurisdictions with myriad different rules for liability for products, ensuring safety of those products so as to reduce the manufacturer's liability costs can be complex and costly.

<sup>&</sup>lt;sup>12</sup> See "Codebases: Millions of Lines of Code" <u>http://www.informationisbeautiful.net/visualizations/million-lines-of-code/</u> and "Genivi: BMW Case Study" <u>http://www.genivi.org/sites/default/files/BMW Case Study Download 040914.pdf</u>

http://www.genty.org/sites/default/mes/bitw\_Case\_study\_Download\_04091
http://www.who.int/gho/road\_safety/mortality/number\_text/en/

Automotive software has a role to play in the liability equation, both in the way in which it may affect the driver and the vehicle. Whether it is measuring the cognitive workload on the driver, or assisted driving through monitoring the car ahead, software will be able to greatly assist drivers to drive more safely. Not preventing a user from tampering with software that controls those features, be it driver workload assessment or an ignition lock, could have grievous results and possibly significant legal ramifications. As an example, software that permitted the user to disable a court-mandated ignition lock, which unlocks the ignition only if the driver has a detected blood alcohol content below the legal limit or none at all, could be argued to be contrary to public good, if not in violation of the initial order requiring the ignition lock. There are at least some circumstances where it is arguably quite reasonable for car companies to not want some of the software in the car to be modified.

# Addressing Anti-Tivoization in Automotive Software

GPLv3 includes a provision that allows a copyright holder to use that license but to include "Additional Permissions" granting additional rights to the licensee::

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law....

You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.<sup>14</sup>

This provision of GPLv3 also allows downstream licensees to remove these additional permissions, if they so desire;

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.)<sup>15</sup>

This provision of GPLv3 provides a mechanism by which a copyright holder who prefers GPLv3 for their code, but is concerned about the effect of the Installation Information requirement on its downstream customers or end users, to grant an additional permission that does not obligate a licensee to follow the Installation Information requirement. At least one project has adopted such an additional permission, which could serve as a template:

The copyright holders grant you an additional permission under Section 7 of the GNU General Public License, version 3, exempting you from the requirement in Section 6 of the GNU General Public License, version 3, to accompany Corresponding Source with Installation Information for the Program or any work based on the Program. You are still required to

<sup>&</sup>lt;sup>14</sup> GNU General Public License version 3.0, Section 7, <u>http://www.gnu.org/licenses/gpl-3.0.en.html</u>

<sup>&</sup>lt;sup>15</sup> *Ibid.* 

comply with all other Section 6 requirements to provide Corresponding Source.<sup>16</sup>

An additional permission under Section 7 of GPLv3 which exempts the licensee from the Installation Information requirement of that license, might allow for GPLv3 software to be used in automobiles while still locking down the software on the head unit to prevent the end user from changing and reinstalling the software.<sup>17</sup>

# Conclusion

GPLv3 compliance in automotive applications may hinge on mitigating the effects of GPLv3 Section 6 and the requirement for sharing of installation information. For many automobile makers, and perhaps the regulatory authorities which set standards for automobiles, the Anti-Tivoization clause of GPLv3 may be considered a deal breaker for reasons of safety. Use of an Additional Permission that exempts the licensee with complying with the Installation Information requirement may be a way to allow for use of GPLv3 in automotive applications while addressing these safety concerns. Other methods, of course, may also exist; the Free Software Foundation (FSF) believes legislation can help.<sup>18</sup> Free Software has the potential not just to play an important role in yet another industry, it has the potential to save lives, quite literally. Once licensing and compliance is understood I think a very strong case can be made that the transparency enabled by FOSS makes safety-critical devices easier to produce, of higher quality, and more effective. This is why there may be the need, at least at this time, to provide a mechanism by which GPLv3 can be used in the automotive industry while addressing their current concerns that the Anti-Tivoization clause may cause safety concerns.<sup>19</sup>

<sup>&</sup>lt;sup>16</sup> E.g., the Canola Project. See Edward T. Lima, "Additional Permissions to the GPLv3", <u>https://garage.maemo.org/forum/forum.php?forum\_id=3771</u>

<sup>&</sup>lt;sup>17</sup> Although Additional Permissions are explicitly allowed in the text of GPLv3, and have been used by projects to exempt licensees from the Installation Information obligation, see, ibid., the use of such an Additional Permission carries risks. First, making use of such a mechanism could require that all code (or at least all code for which it is not desired to provide Installation Information) in the software stack include this Additional Permission - a potentially difficult or impossible task if the stack is complex or requires code from a variety of different projects. There might also be the difficult issue of license incompatibility with code licensed under GPLv3 without such an Additional Permission. If the developer base for the components in the software stack are believers either in the value of the Installation Information requirement, or dislike any effort to alter the "purity" of GPLv3 with Additional Permissions, it may not be possible to make use of this proposal. In addition, any Additional Permission that exists in GPLv3 code may, per Section 7 of GPLv3, be removed by downstream licensees. This could also complicate the creation of a software stack not requiring compliance with the Installation Information requirement. Thus, although this article suggests that an Additional Permission exempting the licensees from complying with the Installation Information requirement might help address some concerns within the automobile industry with GPLv3, the logistics of using and maintaining the Additional Permission might present more complications than the value of the Additional Permission in the first place.

<sup>&</sup>lt;sup>18</sup> See "Volkswagen's Diesel Fraud Makes Critic of Secret Code a Prophet." <u>http://www.nytimes.com/2015/09/23/nyregion/volkswagens-diesel-fraud-makes-critic-of-secret-code-a-prophet.html?\_r=0</u>

<sup>&</sup>lt;sup>19</sup> Many thanks to the members of the Free Software Foundation Europe's safety-critical special interest mailing list and countless others who've helped me with this article.

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