# OSL-2012-Volume of Annexes

Open-source Licence - Task force

# Annexes to the Final Report from the Task Force on Open Source Software Licence at CERN

François Fluckiger, Editor 10 January 2012

Volume of Annexes

Following a proposal by the editor of this report, in March 2011 the Heads of FP Department and IT Department, recognizing that the situation regarding Open Source Software licensing at CERN needed clarification, created the Open Source Licence Task Force (OSL Task Force) to formulate recommendations on which licence should be used for software developed at CERN.

The present volume contains the Annexes to the final report of the OSL Task Force.

It complements the Main Volume of the final report.

These annexes provide three categories of information:

- a) Background educational and reference material on Open Source Licensing (the actors, glossary and explanation of terms)
- *b) Material for practical implementation of the recommendations (how to description cases, how to specify licence terms, ...)*
- *c)* The analysis of the current situation of Open Source Software licensing at CERN, which motivated the creation the OSL Task Force.

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# 1 Background educational and reference material

## 1.1 Glossary of key terms

This report uses key terms the meaning of which is essential for the understanding of the substance.

The table below explains **key** terms and acronyms and how they are used for the purpose of this document. These explanations do not constitute formal definitions (i.e. they are not necessarily expressed in a minimal *necessary* and *sufficient* form).

For most of these terms, there are different definitions and interpretations depending on the Open Source community, the licences themselves or the copyright applicable law.

Therefore, this table of key terms is complemented in section 1.2 by extended explanations on these terms as well as explanations on additional **less central terms.** 

Key Term	Explanation
Compatibility (between two licences)	Refers to the problem arising when combining programmes subject to two different licences which may contain contradictory requirements.
See "Additional explanations in section 1.2)"	As compatibility is not necessarily reciprocal, compatibility is generally described as a directional property between two licences. One direction of compatibility is usually referred to as <i>upstream compatibility</i> , as opposed to the reverse called <i>downstream compatibility</i>
	Examples on non-reciprocal compatibilities: Apache v2.0 is compatible with GPLv3 (that is "upstream- compatible"), but GPLv3 is not compatible (that is not "upstream- compatible"), with Apache v2.0.
Compatibility – Upstream (between licences)	The possibility for a any programme licensed under a given licence A to be combined with a programme licensed under another licence B, and the resulting work to be licensed under licence B ((in that case, A is said to be "compatible with B", or to be "B-compatible" or to be "upstream-compatible with B"). Example: Apache v2.0 is upstream- compatible with GPLv3
Compatibility – Downstream (between licences)	The possibility for a programme licensed under a given licence B to incorporate programmes licensed under a different licence A, and the resulting work to be still licensed under licence B. Example: GPLv3 is downstream-compatible with Apache v2.
Collective work See "Additional explanations in section 1.2)"	In the context of software, the assembling of independent and separately written programme components without modifying any of them, the whole being distributed as a single package.
Copyleft	Unlike copyright which exclusively addresses the right of the author, the Copyleft approach focuses on the right of the users. I short, a Copyleft licence means that derivative work can only be distributed under the same licence terms. Also called "strong Copyleft".
Copyright See "Additional explanations in section 1.2)"	A set of exclusive rights granted to the author or creator of an original work, including the right to copy, distribute and adapt the work.
Derivative work See "Additional explanations in section 1.2)"	A work that is "based upon one or more pre-existing works.
Distribution of software (valid for Communication of software)	Any act of selling, giving, lending, renting, distributing, communicating, transmitting, or otherwise making available, on-line or off-line, copies of the Work or providing access to its essential functionalities.
See "Additional explanations in section 1.2)"	Note that this definition is very large and covers more than just providing "copies" of the software. Someone who, as Internet service provider for example (Software as a Service), allows on-line users to work with the software, is "communicating to the public".

Free Open Source Software (FOSS)	Software which s distributed under a <i>Free Open Source licence</i> , that is, which is <i>free</i> (qualifies as Free Software by the <i>Free Software Foundations</i> , FSF) <b>and</b> <i>Open Source</i> (approved by the Open Source Software initiative, OSI)		
Free Open Source Software licence (FOSS licence)	Licence which is <i>free</i> (qualifies as <i>Free Software</i> by the <i>Free Software Foundation</i> , FSF) <b>and</b> Open Source (approved by the Open Source Software initiative, OSI)		
Free Software	Software distributed under a <i>Free Software Licence</i> (that is, licence that qualifies as following the <i>Free Software Definition</i> by the <i>Free Software Foundation</i> ).		
Free Software Definition (FSD) See "Additional explanations in section 1.2)"	List of criteria published by the <i>Free Software Foundation</i> for licences to qualify as <i>Free Software</i> .		
Free Software Licence	Software licence that qualifies as following the <i>Free Software Definition</i> as specified by the <i>Free Software Foundation</i>		
Free Software Foundation (FSF)	Free Software Foundation Released the GNU licence suite which includes GPLv2, GPLv2 and LGPL		
Intellectual Property (IP)	Creations of the human mind that benefit from the legal protection of a property right. The major legal mechanisms for protecting IP are copyrights, patents, and trademarks. IP rights enable owners to control access to, and use of their IP.		
Licensee	Any natural or legal person who makes any usage of a software distributed under the terms of a given licence		
Open Source Software (OSS) See "Additional explanations in section 1.2)"	Software distributed under a licence approved by the Open Source Initiative		
Open Source Initiative (OSI)	Organization which has defined the principles of <i>Open Source software</i> (published under the term <i>Open Source Definition</i> ) and delivers labels to licences		
Source programme See "Additional explanations in section 1.2)"	The human-readable form of a programme which is the most convenient for people to study and modify		

# **1.2** Additional explanations on terms used in the OSL-TF Final Report

In addition to the glossary of key terms in section 1.1, the table below provides extended explanations for some of these terms.

It also provides explanations of additional, less central terms which are important for the understanding of the substance of this report.

These explanations do not constitute formal definitions (i.e. They are not necessarily expressed in a minimal *necessary* and *sufficient* form).

Term	Extended Explanation
Aggregate work	In the context of software, two or more separate and independent programmes distributed together on the same media, but which are not combined as to form a larger
(Note that there are different definitions/interpretations depending on the copyright	programme (in practice, this means that the programmes part of the aggregate do and which do not communicate with one another).
applicable law)	Most licences (such as GPLv3) do not consider that aggregate works are <i>derivative</i> or <i>collective</i> works, and therefore so not impose to propagate to the aggregates the terms of
a	the components.
Compatibility (between two licences)	Refers to the problem arising when combining programmes subject to two different licences which may contain contradictory requirements.
	As compatibility is not necessarily reciprocal, compatibility is generally described as a directional property between two licences. One direction of compatibility is usually referred to a <i>upstream compatibility</i> , as opposed to the reverse called <i>downstream compatibility</i> .
	Note also that when the compatibility direction is not specified, as in the expression <i>"Licence A is compatible with licence B"</i> , this is usually understood as equivalent to upstream compatibility
	Examples on non-reciprocal compatibilities:
	Apache v2.0 is compatible with GPLv3 (that is "upstream- compatible"), but GPLv3 is not compatible (that is not "upstream- compatible"), with Apache v2.0.
Collective work Note that there are different definitions/interpretations	In the context of software, the assembling of independent and separately written programme components without modifying any of them, the whole being distributed as a single package.
depending on the copyright applicable law)	• A <i>Collective Work</i> is different from a <i>Derivative Work</i> , an <i>Aggregate work</i> and a <i>Compilation</i> .
	• A <i>Collective Work</i> is a sub-category of a <i>Compilation</i> .
	From US law (17 U.S.C. § 101)
	"A <i>collective work</i> is a work, such as a periodical issue, anthology, or
	encyclopaedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole."
Compilation	In the context of software, a programme formed by collecting pre-existing programmes.
(Note that there are different definitions/interpretations depending on the copyright applicable law)	From US law (17 U.S.C. § 101.): "A work formed by the collection and assembling of pre-existing materials [] that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship"
Сору	From US law (17 U.S.C. § 101 "Material object in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device. The term "Copies" includes the material object in which the work is first fixed."
Copyright	A set of exclusive rights granted to the author or creator of an original work, including

	the right to copy, distribute and adapt the work.
	Note that Copyright only protects against copying, not against someone writing the same expression independently, by coincidence. Plaintiffs may still have to prove actual copying.
Derivative work	A work that is "based upon one or more pre-existing works".
(Note that there are different definitions/interpretations depending on the copyright	"Based upon" is generally understood as implying modification (and/or translation, adaptation alteration, transformation) of one or more pre-existing programmes.
applicable law)	However, there are significant differences between copyright applicable laws, which are also are subject to different interpretations. One interpretation is that certain <i>collective works</i> are considered as <i>derivative works</i> (such as in GPL).
	Example
	• From US law: (17 U.S.C. § 101
	"A Derivative work is a work based upon one or more pre-existing works,
	such as a translation, musical arrangement, [], art reproduction, abridgment,
	condensation, or any other form in which a work may be recast, transformed, or
	adapted. A work consisting of editorial revisions, annotations, elaborations, or
	other modifications, which, as a whole, represent an original work of
	authorship, is a derivative work."
	Open-source licences themselves may give different definitions of Derivate Work .
	Examples
	• From Apache licence:
	"Any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this Licence, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof."
	For Apache, a <i>collective work</i> is not a category of derivative work.
	• From EUPL:
	"Software that could be created by a (natural or legal) person, based upon the Original Work or modifications thereof."
	For EUPL, a <i>collective work</i> is not a category of derivative work. The term <i>collective work</i> is not defined explicitly, but covered by the EUPL Compatibility clause.
	Note that:
	<ul> <li>The extent of modification or dependence on the Original Work required in order to classify a work as a Derivative Work is usually not part of the licence but determined by copyright applicable law (explanation based on EUPL definition)"</li> </ul>
	• Substantial similarities, standing alone, are never enough to characterize a derivative work. An independent creation is not a derivative work no matter how much it resembles a pre-existing work.
Distribution of software (also valid for Communication of software)	Any act of selling, giving, lending, renting, distributing, communicating, transmitting, or otherwise making available, on-line or off-line, copies of the Work or providing access to its essential functionalities.
	Note that this definition is very large and covers more than just providing "copies" of the software. Someone who, as Internet service provider for example (Software as a

	Service), allows on-line users to work with the software, is "communicating to the public".
Free Software Definition (FSD)	List of criteria published by the <i>Free Software Foundation</i> for licences to qualify as <i>Free Software</i> :
	Users should have (from "Quick Guide to GPLv3, FSF"):
	• the freedom to <b>use</b> the software for any purpose;
	• the freedom to <b>change</b> the software to suit your needs (access to the source
	code is a precondition for this)
	<ul> <li>the freedom to share the software with your friends and neighbours,</li> <li>the freedom to share the changes you make (by doing this you can give the whole community a chance to benefit from your changes; access to the source code is a precondition for this)</li> </ul>
Licensor	The natural or legal person that distributes and/or communicates the software under a licence.
Open Source Definition (OSD)	The Open Source Initiative (OSI) has listed ten criteria that an Open Source licence must comply with.
	• licence must allow for free redistribution of the software
	• source code of software must be made available
	• licence permits the creation of derived works
	• integrity of author's source code is maintained
	• software can be used by any person or group
	• software can be used in any field of endeavour
	• rights attached to the program are transferable
	<ul> <li>licence must not be specific to a product</li> </ul>
	licence must not restrict other software
	licence must be technology-neutral
Open Source Definition compliant licence	A licence which complies with the <i>Open Source Definition</i> of the <i>Open Source Initiative</i> .
	Note that being compliant with the <i>Open Source Definition</i> is not a condition for a licence to be approved by the <i>Open Source Initiative</i> and therefore to be called Open Source licence.
Open Source Licence	In the context of the CERN Open Source Licensing task Force: A licence which is an <i>Open Source Definition compliant licence</i> and furthermore has been approved by the <i>Open Source Initiative</i> .
	In a general context, sometimes understood as is the way a copyright owner grants permission to others to use his intellectual property in such a way that software freedom is protected for all.
Open Source Software (OSS)	Software distributed under a licence approved by the <i>Open Source Initiative</i> .
	Note that some organization may adopt a broader definition (Example: US DoD 16 October2009: "Software for which the human-readable source code is available for use, study, re-use, modification, enhancement, and re-distribution by the users of that software.")
Proprietary Licence	In the context of the CERN Open Source Licensing task Force: A licence which is not
	an Open Source Licence.
	In a general context, sometimes understood as the way a copyright owner grants
	permission to others to use his <i>intellectual property</i> in a restricted way, through secrecy
Source programme	or other limitations, so that software freedom is not protected.The human-readable form of a programme which is the most convenient for people to study and modify.

For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to
control compilation and installation of the executable.

# 1.3 The Open Source Initiative (OSI) Definition criteria and the most widely used OSI licences

The Open Source Initiative (OSI) has listed ten criteria that an Open Source licence must comply with:

- licence must allow for free redistribution of the software
- source code of software must be made available
- licence permits the creation of derived works
- integrity of author's source code is maintained
- software can be used by any person or group
- software can be used in any field of endeavour
- rights attached to the program are transferable
- licence must not be specific to a product
- licence must not restrict other software
- licence must be technology-neutral

Today, more than 70 licences have been approved by OSI. are in use, a quite unwieldy number.

The OSI also categorizes licences by perceived level of utility. In particular, one relevant category for the OSL Task Force is the "popular and widely used or with strong communities licences" category. At the present time, nine licences are categorised as widely used and/or have strong communities associated with them.

- GNU General Public Licence (GPL)
- GNU Library or "Lesser" General Public Licence (LGPL)
- Apache Licence, 2.0 (Apache-2.0)
- BSD 3-Clause "New" or "Revised" licence (BSD-3-Clause)
- BSD 3-Clause "Simplified" or "FreeBSD" licence (BSD-2-Clause)
- MIT licence (MIT)
- Mozilla Public Licence 1.1 (MPL-1.1)
- Common Development and Distribution Licence (CDDL-1.0)
- Eclipse Public Licence (EPL-1.0)

#### 1.4 The Free Software Foundation (FSF) definition of Free Software

The Free Software Foundation (FSF) has provided a definition of Free Software. The definition is copied verbatim below.

"The Free Software Definition

We maintain this free software definition to show clearly what must be true about a particular software program for it to be considered free software. From time to time we revise this definition to clarify it. If you would like to review the changes we've made, please see the <u>History section</u> below for more information.

"Free software" is a matter of liberty, not price. To understand the concept, you should think of "free" as in "free speech," not as in "free beer."

Free software is a matter of the users' freedom to run, copy, distribute, study, change and improve the software. More precisely, it means that the program's users have the four essential freedoms:

- The freedom to run the program, for any purpose (freedom 0).
- The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
- The freedom to redistribute copies so you can help your neighbor (freedom 2).

• The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

A program is free software if users have all of these freedoms. Thus, you should be free to redistribute copies, either with or without modifications, either gratis or charging a fee for distribution, to <u>anyone anywhere</u>. Being free to do these things means (among other things) that you do not have to ask or pay for permission to do so.

You should also have the freedom to make modifications and use them privately in your own work or play, without even mentioning that they exist. If you do publish your changes, you should not be required to notify anyone in particular, or in any particular way.

The freedom to run the program means the freedom for any kind of person or organization to use it on any kind of computer system, for any kind of overall job and purpose, without being required to communicate about it with the developer or any other specific entity. In this freedom, it is the *user's* purpose that matters, not the *developer's* purpose; you as a user are free to run the program for your purposes, and if you distribute it to someone else, she is then free to run it for her purposes, but you are not entitled to impose your purposes on her.

The freedom to redistribute copies must include binary or executable forms of the program, as well as source code, for both modified and unmodified versions. (Distributing programs in runnable form is necessary for conveniently installable free operating systems.) It is OK if there is no way to produce a binary or executable form for a certain program (since some languages don't support that feature), but you must have the freedom to redistribute such forms should you find or develop a way to make them.

In order for freedoms 1 and 3 (the freedom to make changes and the freedom to publish improved versions) to be meaningful, you must have access to the source code of the program. Therefore, accessibility of source code is a necessary condition for free software. Obfuscated "source code" is not real source code and does not count as source code.

Freedom 1 includes the freedom to use your changed version in place of the original. If the program is delivered in a product designed to run someone else's modified versions but refuse to run yours — a practice known as "tivoization" or "lockdown", or (in its practitioners' perverse terminology) as "secure boot" — freedom 1 becomes a theoretical fiction rather than a practical freedom. This is not sufficient. In other words, these binaries are not free software even if the source code they are compiled from is free.

One important way to modify a program is by merging in available free subroutines and modules. If the program's license says that you cannot merge in a suitably licensed existing module — for instance, if it requires you to be the copyright holder of any code you add — then the license is too restrictive to qualify as free.

Freedom 3 includes the freedom to release your modified versions as free software. A free license may also permit other ways of releasing them; in other words, it does not have to be a <u>Copyleft</u> license. However, a license that requires modified versions to be nonfree does not qualify as a free license.

In order for these freedoms to be real, they must be permanent and irrevocable as long as you do nothing wrong; if the developer of the software has the power to revoke the license, or retroactively change its terms, without your doing anything wrong to give cause, the software is not free.

However, certain kinds of rules about the manner of distributing free software are acceptable, when they don't conflict with the central freedoms. For example, Copyleft (very simply stated) is the rule that when redistributing the program, you cannot add restrictions to deny other people the central freedoms. This rule does not conflict with the central freedoms; rather it protects them.

"Free software" does not mean "noncommercial." A free program must be available for commercial use, commercial development, and commercial distribution. Commercial development of free software is no longer unusual; such free commercial software is very important. You may have paid money to get copies of free software, or you may have obtained copies at no charge. But regardless of how you got your copies, you always have the freedom to copy and change the software, even to <u>sell copies</u>.

Whether a change constitutes an improvement is a subjective matter. If your modifications are limited, in substance, to changes that someone else considers an improvement, that is not freedom.

However, rules about how to package a modified version are acceptable, if they don't substantively limit your freedom to release modified versions, or your freedom to make and use modified versions privately. Thus, it is acceptable for the license to require that you change the name of the modified version, remove a logo, or identify your modifications as yours. As long as these requirements are not so burdensome that they effectively hamper you from releasing your changes, they are acceptable; you're already making other changes to the program, so you won't have trouble making a few more.

Rules that "if you make your version available in this way, you must make it available in that way also" can be acceptable too, on the same condition. An example of such an acceptable rule is one saying that if you have distributed a modified version and a previous developer asks for a copy of it, you must send one. (Note that such a rule still leaves you the choice of whether to distribute your version at all.) Rules that require release of source code to the users for versions that you put into public use are also acceptable.

In the GNU project, we use <u>Copyleft</u> to protect these freedoms legally for everyone. But <u>nonCopylefted free software</u> also exists. We believe there are important reasons why <u>it is better to use Copyleft</u>, but if your program is nonCopylefted free software, it is still basically ethical. (See <u>Categories of Free Software</u> for a description of how "free software," "Copylefted software" and other categories of software relate to each other.)

Sometimes government export control regulations and trade sanctions can constrain your freedom to distribute copies of programs internationally. Software developers do not have the power to eliminate or override these restrictions, but what they can and must do is refuse to impose them as conditions of use of the program. In this way, the restrictions will not affect activities and people outside the jurisdictions of these governments. Thus, free software licenses must not require obedience to any export regulations as a condition of any of the essential freedoms.

Most free software licenses are based on copyright, and there are limits on what kinds of requirements can be imposed through copyright. If a copyright-based license respects freedom in the ways described above, it is unlikely to have some other sort of problem that we never anticipated (though this does happen occasionally). However, some free software licenses are based on contracts, and contracts can impose a much larger range of possible restrictions. That means there are many possible ways such a license could be unacceptably restrictive and nonfree.

We can't possibly list all the ways that might happen. If a contract-based license restricts the user in an unusual way that copyright-based licenses cannot, and which isn't mentioned here as legitimate, we will have to think about it, and we will probably conclude it is nonfree.

When talking about free software, it is best to avoid using terms like "give away" or "for free," because those terms imply that the issue is about price, not freedom. Some common terms such as "piracy" embody opinions we hope you won't endorse. See <u>Confusing Words and Phrases that are Worth Avoiding</u> for a discussion of these terms. We also have a list of proper <u>translations of "free software"</u> into various languages.

Finally, note that criteria such as those stated in this free software definition require careful thought for their interpretation. To decide whether a specific software license qualifies as a free software license, we judge it based on these criteria to determine whether it fits their spirit as well as the precise words. If a license includes unconscionable restrictions, we reject it, even if we did not anticipate the issue in these criteria. Sometimes a license requirement raises an issue that calls for extensive thought, including discussions with a lawyer, before we can decide if the requirement is acceptable. When we reach a conclusion about a new issue, we often update these criteria to make it easier to see why certain licenses do or don't qualify.

If you are interested in whether a specific license qualifies as a free software license, see our <u>list of licenses</u>. If the license you are concerned with is not listed there, you can ask us about it by sending us email at <u><licensing@gnu.org></u>.

If you are contemplating writing a new license, please contact the Free Software Foundation first by writing to that address. The proliferation of different free software licenses means increased work for users in understanding the licenses; we may be able to help you find an existing free software license that meets your needs.

If that isn't possible, if you really need a new license, with our help you can ensure that the license really is a free software license and avoid various practical problems."

#### 1.5 EUPL: The European Union Public Licence

In this section we extend the explanations given in the main volume of the final report and provide the EUPL Licence text.

#### 1.5.1 Background

The **EUPL** is an outcome of the IDABC programme of the European Union. They produced the original **EUPL** aims to stimulate the development of interoperable online delivery platforms for public services in the European Union. This was intended not only to help the EU's citizens but also to make public service delivery more uniform across the Union. This in turn was intended to make it easier for individuals to work anywhere they chose, and encourage companies to invest in multi-site European installations.

This licence is the outcome of three years of study and analysis of several existing FOSS licences, which had determined that there were still needs unmet by existing licences. Version 1.1 of the European Union Public Licence was approved by the Open Source Initiative on 4 March 2009.

The EUPL is available in twenty two translations1. Indeed, the EUPL had to be legally valid in all the official languages of the European Union, in respect of the principle of linguistic diversity, as recognized by the Charter of Fundamental Rights of the European Union.

#### 1.5.2 Licence category: Interoperable Copyleft

**EUPL** is a **Free**<sup>2</sup>, **Open Source**<sup>3</sup> and Copyleft licence (Strong Copyleft) drafted to be fully compatible with European law. However, it is a very innovative licence which created the concept of "Copyleft Interoperability" to overcome some of the difficulties arsing when merging programmes licences under incompatible Copyleft licences.

Indeed, **EUPL** gives recipients ways to relicense larger derivative works under the terms of another Copyleft licence (selected from a list) in case the work covered by the **EUPL** is merged with another work covered by this other license (and when what is distributed is the derivative work as a whole). This provides what is called a downstream compatibility (see Glossary in the Appendix) of the licences which are part of the explicit compatibility list with **EUPL**. The list includes GPLv.2 (and indirectly GPLv3), OSLv.2.1 and v.3.0, CPLv.1.0, Eclipse Public Licence v1.0, CeCILLv.2.0

As an Interoperable-Copyleft licence, EUPL protects the licensor against appropriation. When prioritising a licence that was protecting against appropriation, the European de-facto legally eliminated the risk, even weak, for licensors of having to purchase a solution made of components developed with their own money.

Another feature of **EUPL** is that it is an extremely condensed and carefully written text (four times shorter than GPL).

#### 1.5.3 Guiding principles of EUPL, status and prospects

#### Sharing philosophy

Central to the development of the EUPL licence is the position of the European Union to defend the *sharing* philosophy of Copyleft licensing and collaborative dissemination:

"Sharing software, which is a fundamental principle of "Free or Open Source software" is one of the most efficient ways of increasing its use, reinforcing its quality (allowing other developers to check, improve or increase functionalities) and saving costs by avoiding reinventing the wheel."

Such sharing was unanimously recommended to public administrations by the European ministers responsible for eGovernment policy. Ministerial Declaration approved unanimously on 24 November 2005 in Manchester, United Kingdom

(http://archive.cabinetoffice.gov.uk/egov2005conference/documents/proceedings/pdf/051124declaration.pdf).

<sup>&</sup>lt;sup>1</sup> The EUPL had to be legally valid in all the official languages of the European Union, in respect of the principle of linguistic diversity, as recognized by the Charter of Fundamental Rights of the European Union.

<sup>&</sup>lt;sup>2</sup> Recognized by the Free Software Foundation as following the Free Software Definition (see Glossary in the Appendix)

<sup>&</sup>lt;sup>3</sup> Following the Open Source Definition and Approved by the Open-Source Initiative

For the EU, Interoperability is built on 12 underlying principles. In particular, the "Reusability principle" (N° 10) means that public administrations must be willing to share with others their solutions, concepts, frameworks, specifications, tools and components, applying the principle of "Openness" (N° 9).

#### **Adoption in Europe**

The EUPL, though recent, has been adopted by several national public administrations.

At the time of this being written:

- Spain decided that "The EUPL will be procured, without prejudice of other licences that can guarantee the same rights",
- The Netherlands "Recommends the EUPL for software owned by the government"
- Estonia, Malta, have formally included the EUPL in their national interoperability framework
- EU itself has included the EUPL in the European interoperability framework (European Interoperability Framework EIF v2 of December 2010)
- In other countries like Italy, specific software procurement process request for software delivery "*under the EUPL or licence(s) granting the same rights*".

Note also that he Oxford University OSS-Watch centre, funded by the UK Government, listed in 2011 the EUPL among the ten most popular OSS licences today.

#### 1.5.4 The incompatibility of EUPL with CERN's status as an intergovernmental organization

The **EUPL** had to consider the specificity and diversity of Member States Law and Community Law (copyright terminology, information, warranty, liability but also applicable law and jurisdiction).

As a result, and unlike other Open Source licences like GPL, LGPL or Apache, **EUPL** has two explicit provisions: one for the applicable law and the other for the jurisdiction in case or litigation resulting from the interpretation of the licence.

Although EUPL has many advantages, as explained in section 4.3 of the OSL Task Force report, it is currently not compatible with CERN's status as an Intergovernmental Organization. EUPL may therefore <u>not</u> be selected by CERN in its current form.

Considering that EUPL is a promising, modern, flexible and easy to use Copyleft licence, the OSL Task Force recommends that CERN approach the European Commission on a possible change of the licence, to make it compatible with the particular legal status of Intergovernmental Organizations.

#### 1.6 EUPL Licence text

# European Union Public Licence v. 1.1

EUPL © the European Community 2007

This European Union Public Licence (the "EUPL") applies to the Work or Software (as defined below) which is provided under the terms of this Licence. Any use of the Work, other than as authorised under this Licence is prohibited (to the extent such use is covered by a right of the copyright holder of the Work).

The Original Work is provided under the terms of this Licence when the Licensor (as defined below) has placed the following notice immediately following the copyright notice for the Original Work:

Licensed under the EUPL V.1.1

or has expressed by any other mean his willingness to license under the EUPL.

#### **1. Definitions**

In this Licence, the following terms have the following meaning:

- The Licence: this Licence.

- *The Original Work* or *the Software*: the software distributed and/or communicated by the Licensor under this Licence, available as Source Code and also as Executable Code as the case may be.

- *Derivative Works*: the works or software that could be created by the Licensee, based upon the Original Work or modifications thereof. This Licence does not define the extent of modification or dependence on the Original Work required in order to classify a work as a Derivative Work; this extent is determined by copyright law applicable in the country mentioned in Article 15.

- The Work: the Original Work and/or its Derivative Works.

- *The Source Code*: the human-readable form of the Work which is the most convenient for people to study and modify.

- *The Executable Code:* any code which has generally been compiled and which is meant to be interpreted by a computer as a program.

- *The Licensor*: the natural or legal person that distributes and/or communicates the Work under the Licence.

- *Contributor(s):* any natural or legal person who modifies the Work under the Licence, or otherwise contributes to the creation of a Derivative Work.

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- *Distribution* and/or *Communication*: any act of selling, giving, lending, renting, distributing, communicating, transmitting, or otherwise making available, on-line or off-line, copies of the Work or providing access to its essential functionalities at the disposal of any other natural or legal person.

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The Licensor grants to the Licensee royalty-free, non exclusive usage rights to any patents held by the Licensor, to the extent necessary to make use of the rights granted on the Work under this Licence.

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Any litigation arising between Parties, other than the European Commission, and resulting from the interpretation of this License, will be subject to the exclusive jurisdiction of the competent court where the Licensor resides or conducts its primary business.

#### **15. Applicable Law**

This Licence shall be governed by the law of the European Union country where the Licensor resides or has his registered office.

This licence shall be governed by the Belgian law if:

- a litigation arises between the European Commission, as a Licensor, and any Licensee;
- the Licensor, other than the European Commission, has no residence or registered office inside a European Union country.

#### Appendix

# "Compatible Licences" according to article 5 EUPL are:

- GNU General Public License (GNU GPL) v. 2
- Open Software License (OSL) v. 2.1, v. 3.0
- Common Public License v. 1.0
- Eclipse Public License v. 1.0
- Cecill v. 2.0

- 2 Material for practical implementation of the recommendations
- 2.1 Draft Form to document software cases submitted for Open Source distribution

# OSL-2011-11

Open Source Licence - Task force

# Form to document software cases submitted for Open Source distribution

François Fluckiger, 20 September 2011 Draft: 4

Distribution: Public

Name of the Program subject to Open Source release and licensing				
Unit requesting Open Source release				
	Section			
Name of the person requesting Open Source release				
Names of other CERN persons associated to the SW <sup>4</sup>				

Date of the request		
Status of the Request Sent by requester to IT KTT Departmental Officer		Y (date) / N
	Sent by IT KTT Departmental Officer to FP-KT	Y (date) / N
	Final licensing details agreed between IT and FP-KT	Y (date) / N

# General features of the program proposed for Open Source distribution

Is the program to be	A <b>Compiled</b> language (e.g. C, C <sup>++</sup> )				
released written in	(program in source form and executable form)?				
	An Interpreted language (e.g. shell scripts, Java, Perl)				
	(program in source	form only)?			
What would you	The <b>source</b> only?		Y/N		
wish to release,	Both source and binary (if	applicable)?	Y/N		
Is the program you	Designed as a stand-alone p	program (i.e. not as a component for other programs)?	Y/N		
wish to release	Designed as a component o	f other programs (e.g. a library or a library component, to	Y/N		
	be linked to other programs)	?			
	A mix of stand-alone program(s) and libraries				
Is the program you	A genuine <b>original</b> work <sup>5</sup> ?		Y/N		
wish to release	A derivative work by	Inclusion only of CERN program(s)	Y/N		
	inclusion only <sup>6</sup>	Inclusion only of outside program(s)	Y/N		
	A derivative work by	Modification of CERN program(s)	Y/N		
	inclusion and	Modification of outside program(s)	Y/N		
	modification <sup>7</sup>				
Is the program you	A program which does not r	equire other programs in order to run as designed	Y/N		
wish to release A program that makes		Is the use of the other programs(s) compulsory for your	Y/N		
	of or communicate with	programme to run as planned?			
	other programs?	Is the use of the other programs(s) optional?			
If the program makes Do you plan to distribute		Your program only?			
use of or		Your program and other programs which make use or			
communicate with		communicate with it.			
other programs ,	Are these other programs	From within CERN <sup>8</sup> ?	Y/N		
	From outside CERN <sup>9</sup> ?	Y/N			

<sup>&</sup>lt;sup>4</sup> Co-authors, supervisor, ...

<sup>&</sup>lt;sup>5</sup> The program you wish to distribute does not incorporate any other programs, be they from CERN or from the outside, be they simply included unchanged or modified by you.

 $<sup>^{6}</sup>$  The program you wish to distribute incorporates unchanged other programs, be they from CERN or from the outside

<sup>&</sup>lt;sup>7</sup> The program you wish to distribute is a version modified by yourself of an existing programs or it incorporates modules modified by yourself, be they from CERN or from the outside

<sup>&</sup>lt;sup>8</sup> i.e. They belong to CERN as developed and copyrighted by CERN, either solely or in collaboration with other partners

<sup>&</sup>lt;sup>9</sup> i.e They do not belong to CERN, which has no copyright on them

Licensing				
Regarding the licence to be used, do you	Have no reservation in usit licence (GPLv3)	ave no reservation in using the CERN <i>default</i> Open Source cence (GPLv3)		
	Have a wish, a weak or strong opinion to use a particular Open Source licence If so, is this licence	The CERN alternate	e licence (LGPLv3)	Y/N
particula		The CERN <i>exception</i> v2)	<i>n</i> licence (Apache	Y/N
		Another Open Source licence?	If so, provide the name of this licence	
		Provide the reason(s proposal <sup>10</sup>	) of your	
How do you plan to make the program	nake the program CERN?	If so, provide the ser	ver name	
available <sup>11</sup>	On a Open Source distribution external site (e.g. SourceForge)	If so, provide the nar site	me of the external	

Be as explicit as possible if you have a strong opinion
 The two options are not mutually exclusive

# Details of other programs included, modified or communicating with your program

Is a derivative	If it includes	<b>P</b> 1	The name of this other program	
work by	CERN		The name of the licence under which it is distributed	
inclusion	programs,		by CERN (if applicable)	
only <sup>12</sup>	provide	P2	The name of this other program	
			The name of the licence under it is distributed by	
			CERN (if applicable)	
	If it includes	<b>P</b> 1	The name of this other program	
	outside		The name of the licence under which it has been	
	programs,		obtained	
	provide	P2	The name of this other program	
		The r	The name of the licence under which it has been	
			obtained	
Is a derivative	If it includes	<b>P</b> 1	The name of this other program	
work by	modified CERN		The name of the licence under which is distributed by	
inclusion and	programs,		CERN (if applicable)	
modification <sup>13</sup>	provide		The type of modification you did (change of part or	
			all, addition, suppression,)	
		P2	The name of this other program	
			The name of the licence under which is distributed by	
			CERN (if applicable)	
			The type of modification you did (change of part or	
			all, addition, suppression,)	
modified outside		<b>P</b> 1	The name of this other program	
			The name of the license under which it has been	
			obtained	
	programs,		The type of modification you did (change of part or	
	provide		all, addition, suppression,)	
		P2	The name of this other program	
			The name of the licence under which it has been	
			obtained	
			The type of modification you did (change of part or	
Malaanaa	TC dia con	D1	all, addition, suppression,)	X7 /N1
Makes use of		P1	Is Statically linked to this other program	Y/N V/N
or communicate	programs are from within		Is Dynamically linked to this other program (e.g.	Y/N
with other	CERN <sup>14</sup>		using shared libraries)? Is Partly Statically linked and partly Dynamically	V/N
programs.			linked?	Y/N
programs.		P2	Statically linked to this other program	Y/N
	Jour program is	12	Dynamically linked to this other program (e.g. using	Y/N
			shared libraries)?	1/1N
			Partly Statically linked and partly Dynamically	Y/N
			linked?	1/11
	If these	<b>P</b> 1	In a tightly-coupled way <sup>16</sup> Please specify	
	programs are		In a loosely-coupled way <sup>17</sup> Please specify	
	1 0	P2	In a tightly-coupled way <sup>16</sup> . Please specify In a loosely-coupled way <sup>17</sup> . Please specify In a tightly-coupled way <sup>18</sup> . Please specify In a loosely-coupled way <sup>19</sup> . Please specify	
	CERN <sup>15</sup>	1 2	In a loosely-coupled way <sup>19</sup> Please specify	
	CLIU,		In a loosely-coupled way . I lease specify	

The program you wish to release ...

<sup>12</sup> The program you wish to distribute incorporates unchanged other programs, be they from CERN or from the outside

<sup>13</sup> The program you wish to distribute is a version modified by yourself of an or incorporates existing programs modified by yourself, be they from CERN or from the outside I.e. They belong to CERN as developed and copyrighted by CERN, either solely or in collaboration with other partners

<sup>14</sup> 

<sup>15</sup> I.e. They belong to CERN as developed and copyrighted by CERN, either solely or in collaboration with other partners

<sup>&</sup>lt;sup>16</sup> E.g. integrated in the same executable, linked together in a shared address space, ...

<sup>17</sup> E.g. using pipes, sockets and command-line arguments, ...

<sup>18</sup> E.g. integrated in the same executable, linked together in a shared address space, ...

	indicate whether			
	your program			
	communicates			
	with them			
	If these	P1	Statically linked to this other program	Y/N
	programs are from outside CERN <sup>20</sup> indicate whether your		Dynamically linked to this other program (e.g. using shared libraries)?	Y/N
			Partly Statically linked and partly Dynamically linked?	Y/N
	program is	P2	Statically linked to this other program	Y/N
			Dynamically linked to this other program (e.g. using shared libraries)?	Y/N
			Partly Statically linked and partly Dynamically linked?	Y/N
	If these	P1	In a tightly-coupled way <sup>22</sup> . Please specify	
	programs are		In a loosely-coupled way <sup>23</sup> . Please specify	
	from outside CERN <sup>21</sup> indicate	P2	In a tightly-coupled way <sup>24</sup> . Please specify	
			In a loosely-coupled way <sup>25</sup> . Please specify	
	whether your			
	program			
	communicates			
	with them			

<sup>&</sup>lt;sup>19</sup> E.g. using pipes, sockets and command-line arguments, ... <sup>20</sup> i.e They do not belong to CERN, which has no copyright on them <sup>21</sup> i.e They do not belong to CERN, which has no copyright on them <sup>22</sup>

 <sup>&</sup>lt;sup>22</sup> E.g. integrated in the same executable, linked together in a shared address space, ...
 <sup>23</sup> E.g. using pipes, sockets and command-line arguments, ...

<sup>&</sup>lt;sup>24</sup> E.g. integrated in the same executable, linked together in a shared address space, ...

 <sup>&</sup>lt;sup>25</sup> E.g. using pipes, sockets and command-line arguments, ...

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Version 3, 29 June 2007

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"

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#### 1. Source Code.

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# **3 OSS at CERN: The current formal and de-facto situation**

Making software (SW) developed by CERN available free of charge to the outside has been a tradition over the past four decades. One of the most prominent examples on the 70s and 80s was the CERNLIB library or programmes. Though free-of-charge distribution of CERN Software was a common practice, this did not derive from a clear and stated policy.

#### 3.1 Consequences of de-facto practices without de-jure policy

The lack of stated policies and processes had 5 consequences

#### 3.1.1.1 A variety of methods for making CERN software available to the outside ...

... without clear reasons for using one or the other. This included:

- Binary Code only
  - Downloadable by any third-party
  - Available through formal bilateral agreements
- Source Code and Binary Code
  - Downloadable by any third-party (Open Source principles)
  - Available through formal bilateral agreements

#### 3.1.1.2 A frequent lack of consideration for Intellectual Property (IP)

- Copyright statements (e.g. © CERN) were sometimes omitted, or referred to non-existing legal bodies (e.g. © Collaboration xyz where the membership of the xyz collaboration is fuzzy, amorphous).
- CERN IP was sometimes deliberately relinquished. The most famous example is the nearly fatal decision of CERN in March 1993 to place version 0 of the web software (HTTP server) in the "Public Domain", i.e. relinquishing CERN IP.

#### 3.1.1.3 The lack of consideration for liabilities

• Sometimes, disclaimer and liability statements were absent from the released software, or more frequently were copied from other licences without full consideration of the legal status of CERN.

#### 3.1.1.4 The fuzziness of the conditions of use

• It was not always clear what were the rights and duties of those using the CERN software (rights and duties for the use, further distribution, re-selling, modification, incorporation, derivative work, ...)

#### 3.2 The policy as defined in 2005

In 2004, the TT group drafted a report called "*Proposed Policy for Software Development* @ CERN" that the departments were asked to comment. This resulted at the end of 2004 in a document called "*Policy for Software Dissemination* @ CERN - The CERN Approach".

#### **3.2.1.1** Policy adopted by to the Finance Committee

As a result of this effort, the CERN/FC/4920 document called "*Technology Transfer at CERN: Elements of Policy and Practice*" was presented the 16<sup>th</sup> of March 2005 to the FC. The document contains a section of Software Strategy (section 1.4).

In substance, the document states the following:

- SW made available to the outside must contain proper licence and copyright statements
- True "free-software" licences ("Copyleft licences" called in the FC document "licences with viral properties") such as GPL should be avoided.
- A licence template specially developed by CERN should be used (this licence template belongs to the category sometimes called "fully permissive" or "industry-friendly licences", as companies may exploit commercially their derivative work without publishing the source of their work.

The paper stated that a fully explanatory document would be "*drafted in due course and communicated to all affected personnel*".

# **3.2.1.2** The aftermath of the FC policy document

- The fully explanatory document mentioned above was not distributed within CERN.
- The specially-developed CERN licence template did not receive the Open-source Initiative (OSI) label (the reason being that there were already multiple similar OSI certified public licences). As a result the IT-based EGEE project, which needed a "fully permissive" OSI-certified licence, adopted an existing OSI-certified public licence (the Apache licence).
- A number of major CERN software packages (developed solely by CERN or in collaboration with other institutes) are distributed under true "Copyleft" licence, usually GPL, consistently with the CERN Open Access policy.

#### 3.3 The CERN Open-Access policy

In the meantime, CERN adopted a general policy in favour of open access and undertook a series of actions. CERN supports the <u>SCOAP<sup>3</sup> initiative</u> and the PH Department publishing policy strongly recommends publishing papers under Open Access conditions.

#### 3.4 Summary of the situation

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- The use of "Copyleft" Licences (such as GPL) is dis-recommended by the FC/4920 Policy document.
   However a number of major CERN and "CERN community" packages are distributed under GPL.
  - The Template Licence recommended in 2005 by FC/4920 has no official OSI approval.
    - It has been de-facto replaced by a public OSI-Approved licence (Apache), which is used by EGEE and many other IT software (particularly for small modules like library elements).
    - However, it may be desirable to check whether the Apache disclaimer and liability clauses are compatible with the CERN status.
- To sum up, there is no clear guidance to departments neither on which licence to use for which cases, nor on the decision making process to be followed.
  - In IT, attempts are made to centralize through the Departmental KTT Officer (DKTTO) all new cases of Open Source SW. The DKTTO and the SW author(S) discuss the licence options. Then, the case is systematically presented by the DKTTO to the KTT legal adviser.
- Cases where CERN-developed software is in fact a compound work that incorporates external Open Source components themselves available as Open Source are more and more frequent.
  - These cases require special attention to check that the chosen licence for the overall compound work is compatible with those of the incorporated components.
  - Such cases in IT are handled to the KTT legal adviser who verifies the licence compatibilities. In cases of conflicts, this analysis may result in the choice of an unusual licence for the CERN compound work or even in the withdrawal of the idea of open-sourcing the work.
- More and more frequently, the SW packages are made available through Source distribution Sites such as (Source Forge) so has to maximize their dissemination.