A Compendium of Material on

Open Source Software / Free Software OSS/FS

Definitions, Licences, and Implications





The Open Source Initiative

http://www.opensource.org/

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Open Source Initiative (OSI) is a non-profit corporation dedicated to managing and promoting the <u>Open Source Definition</u> for the good of the community, specifically through the OSI Certified Open Source Software <u>certification mark and program</u>. You can read about successful <u>software products</u> that have these properties, and about our certification mark and program, which allow you to be confident that software really is "Open Source." We also make copies of <u>approved open source licenses</u> here.

The **basic idea behind open source** is very simple: When programmers can read, redistribute, and modify the source code for a piece of software, the software evolves. People improve it, people adapt it, people fix bugs. And this can happen at a speed that, if one is used to the slow pace of conventional software development, seems astonishing.

Recommended Reading

- Open Source Citizenship
- <u>Technology trends</u> that will affect your business and how you do business.
- Shared Source: A Dangerous Virus
- Why Open Source Software / Free Software (OSS/FS)? Look at the Numbers!
- A Business Case Study of Open Source Software
- Our own <u>Halloween Documents</u>. Where will Microsoft try to drag you today? Do you really want to go there?
- <u>Yahoo! and FreeBSD</u>: a co-founder of Yahoo! explains why they gave up on closed Internet platforms and made Yahoo! a success with FreeBSD.

The Open Source Definition

Version 1.9

The indented, italicized sections below appear as annotations to the Open Source Definition (OSD) and are **not** a part of the OSD.

Introduction

Open source doesn't just mean access to the source code. The distribution terms of open-source software must comply with the following criteria:

1. Free Redistribution

The license shall not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources. The license shall not require a royalty or other fee for such sale.

Rationale: By constraining the license to require free redistribution, we eliminate the temptation to throw away many long-term gains in order to make a few short-term sales dollars. If we didn't do this, there would be lots of pressure for cooperators to defect.

2. Source Code

The program must include source code, and must allow distribution in source code as well as compiled form. Where some form of a product is not distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost—preferably, downloading via the Internet without charge. The source code must be the preferred form in which a programmer would modify the program. Deliberately obfuscated source code is not allowed. Intermediate forms such as the output of a preprocessor or translator are not allowed.

Rationale: We require access to un-obfuscated source code because you can't evolve programs without modifying them. Since our purpose is to make evolution easy, we require that modification be made easy.

3. Derived Works

The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.

Rationale: The mere ability to read source isn't enough to support independent peer review and rapid evolutionary selection. For rapid evolution to happen, people need to be able to experiment with and redistribute modifications.

4. Integrity of The Author's Source Code

The license may restrict source-code from being distributed in modified form only if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time. The license must explicitly permit distribution of software built from modified source code. The license may require derived works to carry a different name or version number from the original software.

Rationale: Encouraging lots of improvement is a good thing, but users have a right to know who is responsible for the software they are using. Authors and maintainers have reciprocal right to know what they're being asked to support and protect their reputations.

Accordingly, an open-source license **must** guarantee that source be readily available, but **may** require that it be distributed as pristine base sources plus patches. In this way, "unofficial" changes can be made available but readily distinguished from the base source.

5. No Discrimination Against Persons or Groups

The license must not discriminate against any person or group of persons.

Rationale: In order to get the maximum benefit from the process, the maximum diversity of persons and groups should be equally eligible to contribute to open sources. Therefore we forbid any open-source license from locking anybody out of the process.

Some countries, including the United States, have export restrictions for certain types of software. An OSD-conformant license may warn licensees of applicable restrictions and remind them that they are obliged to obey the law; however, it may not incorporate such restrictions itself.

6. No Discrimination Against Fields of Endeavor

The license must not restrict anyone from making use of the program in a specific field of endeavor. For example, it may not restrict the program from being used in a business, or from being used for genetic research.

Rationale: The major intention of this clause is to prohibit license traps that prevent open source from being used commercially. We want commercial users to join our community, not feel excluded from it.

7. Distribution of License

The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.

Rationale: This clause is intended to forbid closing up software by indirect means such as requiring a non-disclosure agreement.

8. License Must Not Be Specific to a Product

The rights attached to the program must not depend on the program's being part of a particular software distribution. If the program is extracted from that distribution and used or distributed within the terms of the program's license, all parties to whom the program is redistributed should have the same rights as those that are granted in conjunction with the original software distribution.

Rationale: This clause forecloses yet another class of license traps.

9. License Must Not Restrict Other Software

The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be open-source software.

Rationale: Distributors of open-source software have the right to make their own choices about their own software.

Yes, the GPL is conformant with this requirement. Software linked with GPLed libraries only inherits the GPL if it forms a single work, not any software with which they are merely distributed.

10. License Must Be Technology-Neutral

No provision of the license may be predicated on any individual technology or style of interface.

Rationale: This provision is aimed specifically aimed at licenses which require an explicit gesture of assent in order to establish a contract between licensor and licensee. Provisions mandating so-called "click-wrap" may conflict with important methods of software distribution such as FTP download, CD-ROM anthologies, and web mirroring; such provisions may also hinder code re-use. Conformant licenses must allow for the possibility that (a) redistribution of the software will take place over non-Web channels that do not support click-wrapping of the download, and that (b) the covered code (or re-used portions of covered code) may run in a non-GUI environment that cannot support popup dialogues.

Open Source Software / Free Software (OSS/FS)

"OSS/FS programs are programs whose licenses give users the freedom to run the program for any purpose, to study and modify the program, and to redistribute copies of either the original or modified program (without having to pay royalties to previous developers).

. . .

Note that those who use the term <u>"open source software"</u> tend to emphasize technical advantages of such software (such as better reliability and security), while those who use the term <u>"Free Software"</u> tend to emphasize freedom from control by another and/or ethical issues.

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Many OSS/FS programs are commercial programs, so don't make the mistake of thinking OSS/FS is equivalent to "non-commercial" software (indeed, any article making this mistake should be ignored since it is obviously poorly researched). Almost no OSS/FS programs are in the "public domain" (which has a specific legal meaning), so avoid that term as well.

. . .

The most popular OSS/FS license is the General Public License (GPL); all software released under the GPL is OSS/FS, but not all OSS/FS software uses the GPL; nevertheless, some people do inaccurately use the term "GPL software" when they mean OSS/FS software.

. . .

There are dozens of OSS/FS licenses, but the vast majority of OSS/FS software uses one of the four major licenses: the GNU General Public License (GPL), the GNU Lesser (or Library) General Public License (LGPL), the MIT (aka X11) license, and the BSD-new license. Indeed the Open Source Initiative refers to these four licenses as the classic open source licenses. The GPL and LGPL are termed "copylefting" licenses (also called "protective" licenses), that is, these licenses are designed to prevent (protect) the code from becoming proprietary. Here is a short description of these licenses:

- 1. The GPL allows anyone to use the program and modify it, but prevents code from becoming proprietary once distributed and it also forbids proprietary programs from "linking" to it.
- 2. The MIT and BSD-new licenses let anyone do almost anything with the code except sue the authors. One minor complication: there are actually two "BSD" licenses, sometimes called "BSD-old" and "BSD-new"; new programs should use BSD-new instead of BSD-old.
- 3. The LGPL is a compromise between the GPL and the MIT/BSD-new approaches, and was originally intended for code libraries. Like the GPL, LGPL-licensed software cannot be changed and made proprietary, but the LGPL does permit proprietary programs to link to the library, like the MIT/BSD-new licenses.

Note that all of these licenses (the GPL, MIT, BSD-new, and LGPL) permit the commercial sale and the commercial use of the software, and many such programs as sold and used that way. See Perens' paper for more information comparing these licenses."

(extracted from Why Open Source Software / Free Software (OSS/FS)? Look at the Numbers!)

Open Source Case for Business

Supportive Documents:

- <u>Ernie Ball</u> (guitar string manufacturer) switches to open source and saves \$80,000.
- Open Source-onomics: Examining some pseudo-economic arguments about Open Source.
- MITRE REPORT: "A Business Case Study of Open Source Software".
- "Your Open Source Plan" from CIO magazine.

The open-source model has a lot to offer the business world. It's a way to build open standards as actual software, rather than paper documents. It's a way that many companies and individuals can collaborate on a product that none of them could achieve alone. It's the rapid bug-fixes and the changes that the user asks for, done to the user's own schedule.

The open-source model also means increased security; because code is in the public view it will be exposed to extreme scrutiny, with problems being found and fixed instead of being kept secret until the wrong person discovers them. And last but not least, it's a way that the little guys can get together and have a good chance at beating a monopoly.

Of all these benefits, the most fundamental is increased reliability. And if that's too abstract for you, you should think about how closed sources made the Year 2000 problem worse and why they might have very well killed your business.

The Reliability Problem

Gerald P. Weinberg once famously observed that, "If builders built houses the way programmers built programs, the first woodpecker to come along would destroy civilization." He was right. Up to now, the reliability of most software has been atrociously bad.

The foundation of the business case for open-source is high reliability. Open-source software is peer-reviewed software; it is more reliable than closed, proprietary software. Mature open-source code is as bulletproof as software ever gets.

Until recently this was a radical idea to many businesspeople; many had a belief that open-source software is necessarily not "professional," that it is shoddily made and more prone to fail than closed software.

But the Internet's infrastructure makes the best possible refutation, and since OSI was founded in 1998 many people have been paying attention. Consider DNS, sendmail, the various open-source TCP/IP stacks and utility suites, and the open-source scripting languages such as Perl that are behind most "live" content on the Web. These are the running gears of the Internet. (Read this for a look at what would happen if they disappeared).

These open-source programs have demonstrated a level of reliability and robustness under fast-changing conditions (including a huge and rapid increase in the Internet's size) that, considered against the performance record of even the best closed commercial software, is nothing short of astonishing.

You can read an extended technical argument for the superior reliability of general open-source software in "The Cathedral and the Bazaar". This paper was behind Netscape's pioneering decision to take its client software open-source. It describes a bazaar style of managing software development that depends on open source and leads to high reliability and quality.

The real-world evidence backs this up. In an independent head-to-head reliability test, open-source Unix systems and utilities were less fragile – crashed or hung less often – than their proprietary counterparts. The paper describing this test is available <u>here</u>.

The business implication of this technical case is clear. Eventually, bazaar-mode peer review will come to be considered a necessary condition for highest quality. In many market niches, software that has not been peer-reviewed simply won't be perceived as good enough to compete.

The Payoff for Software Producers

Bazaar-mode development seems to reverse our normal expectations about software development; more programmers are better (at least, as long as the capacity of the project leader or project core group to handle integration isn't exceeded). Even a small open-source project can muster more brains to improve a piece of software than most development shops can possibly afford.

You'll see the following gains under the open-source model whether you're producing software for internal use or for resale.

Advantage: Development Speed

It follows that commercial developers leveraging the bazaar mode should be able to grab, and keep, a substantial initiative advantage over those that don't. But there's more; the first commercial developer in a given market niche to switch to this mode may gain substantial advantages over later ones.

Why? Because the pool of talent available for bazaar recruitment is limited. The first bazaar project in a given niche is more likely to attract the best co-developers to invest time in it. Once they've invested the time, they're more likely to stick with it.

Advantage: Lower Overhead

Switching to the open-source model should also be good for a significant overhead reduction in per-project software production costs.

The open-source model allows software shops to (in effect) outsource some of their work, paying for it in values less tangible than money. (But perhaps not less

economically significant; the increased speed with which an outside co-developer can have a needed bug fix will often translate into a substantial opportunity gain for that customer.)

This means smaller shops will be able to handle bigger projects.

The Payoff for Software Merchants

If you produce software for sale, you'll see two more advantages:

Advantage: Closeness to the Customer

One of the most often-repeated pieces of management advice is "Stay close to the customer." In today's fast-moving, short-product-cycle business climate it's more important than ever to do that – to understand almost as soon as they do what the customers want and be able to rapidly respond to those needs.

If you sell software, what better way to do this than by co-opting your customers' engineers to help your development?

It's worth pointing out that the open-source, bazaar method resembles the way many successful Japanese companies have done consumer product development; get a product to market that works but is not perfect, and iterate quickly based upon customer feedback to reach the combination of features that the customers need and want. This has turned out to be especially valuable for high technology products (laptops, personal assistants, cellphones, etc) that people don't know they need, or what features they need.

Advantage: Broader Market

An important side-effect of the open-source model will be a much wider platform range for your product. Open-source authors frequently find themselves receving, for free, port changes for operating systems and environments they barely know exist and can't afford developers to support. Each such port, of course, widens the market appeal of the product.

The Payoff for Entrepreneurs

For an entrepreneur or start-up software producer, going open-source is a way to grab mind-share. The best new concept in the world won't make money unless people know it's interesting.

Whether this makes sense as a strategy depends on whether you think your main value proposition is in the software itself or in service and the expertise associated with the software. More often than one might think, the value is actually in service and integration.

This, to give one recent example, the startup <u>Digital Creations</u> open-sourced its flagship project <u>Zope</u> on the advice of its venture capitalists. The VCs projected that going open-source would actually increase the value of the company.

For full discussion see Paul Everitt's <u>business decision</u> essay. It makes an eloquent case.

You can also read *Wired* magazine's tour of open-source startups...

Four Ways To Win

Now for a higher-level, investor's point of view. There are at least four known business models for making money with open source:

- 1. Support Sellers (otherwise known as "Give Away the Recipe, Open A Restaurant"): In this model, you (effectively) give away the software product, but sell distribution, branding, and after-sale service. This is what (for example) Red Hat does.
- 2. **Loss Leader**: In this model, you give away open-source as a loss-leader and market positioner for closed software. This is what Netscape is doing.
- 3. **Widget Frosting**: In this model, a hardware company (for which software is a necessary adjunct but strictly a cost rather than profit center) goes open-source in order to get better drivers and interface tools cheaper. Silicon Graphics, for example, supports and ships Samba.
- 4. **Accessorizing**: Selling accessories books, compatible hardware, complete systems with open-source software pre-installed. It's easy to trivialize this (open-source T-shirts, coffee mugs, Linux penguin dolls) but at least the books and hardware underly some clear successes: O'Reilly Associates, SSC, and VA Research are among them.

The open-source culture's exemplars of commercial success have, so far, been service sellers or loss leaders. Nevertheless, there is good reason to believe that the clearest near-term gains in open-source will be in widget frosting.

For widget-makers (such as semiconductor or peripheral-card manufacturers), interface software is not even potentially a revenue source. Therefore the downside of moving to open source is minimal.

(Frank Hecker of Netscape proposes more models and discusses them in detail in his paper <u>Setting Up Shop</u>.)

There are even, as it turns out, people willing to argue that the open-source model could work well economically for hardware design.

Standard Objections

There are a couple of standard business objections to the open-source model that deserve to be exploded. We cover these on the <u>Frequently Asked Questions</u> list.

Why "Free" Software is too Ambiguous

What Does "Free" Mean, Anyway?

Some software is called "free" because it costs no money to download or use – but source code is not available. The license that covers Microsoft Internet Explorer is a good example.

Some software is called "free" because it (and the source code for it) has been placed in the "public domain", free from copyright restrictions.

A lot of software is called "free" even though the source code for it is covered by copyright and a license agreement. The license usually includes a disclaimer of reliability, and may contain additional restrictions.

The restrictions on non-public-domain "free" software range from mild to severe. Some licenses may prohibit (or require a fee for) commercial use or redistribution. Some licenses may prohibit distributing modified versions. Some licenses may contain "copyleft" restrictions requiring that the source code must always be made available, and that derived products must be released under the exact same license. Some licenses may discriminate against individuals or groups.

And Who Does It Mean It To?

Many different groups or people use different definitions of what constitutes "free software."

As a result, communication is hampered due to arguments over whether a particular piece of software is "free" or not. This is bad enough when the argument is between people who basically agree that source should be available, but it could get worse.

If the "free software" label were ever to catch on in the corporate world, it all would be all too easy to imagine Microsoft claiming Internet Explorer is "free software" because its cost is zero dollars. Would we really want that?

The Real-World Evidence

In mid-2004, the President of OSI did a statistical Web-content analysis on the usage frequencies of the phrases "open source" and "free software. You can read that analysis here. A summary of the conclusions:

- Among software developers and in the technology trade press, use of the term "open source" dominates use of the term "free software" by 95%-5% or more.
- On the general Web, the ratio is 80%-20% or more.
- The gratis/libre ambiguity in the term "free software" produces about an 80% false-positive rate in Web searches.
- Use of the term "free software" is in long-term decline, and older or obsolete pages form a larger part of its share than for "open source".

The clear message is that six more years has done nothing to resolve the ambiguity of the phrase "free software".

From the FAQ page

How do I make money on software if I can't sell my code?

You can sell your code. Red Hat does it all the time. What you can't do is stop someone else from selling your code as well. That just says that you need to add extra value to your code, by offering service, or printed documentation, or a convenient medium, or a certification mark testifying to its quality.

Can you give me some open-source sound bites to use?

The one-sentence version:

Open source promotes software reliability and quality by supporting independent peer review and rapid evolution of source code.

The one-paragraph version:

Open source promotes software reliability and quality by supporting independent peer review and rapid evolution of source code. To be OSI certified, the software must be distributed under a license that guarantees the right to read, redistribute, modify, and use the software freely.

The Approved Licenses

For your convenience, we have collected here copies of the licenses approved by OSI. If you distribute your software under one of these licenses, you are permitted to say that your software is "OSI Certified Open Source Software."

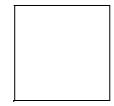
The "classic" licenses, GPL, LGPL, BSD, and MIT, were the most commonly used for open-source software before the Mozilla release in early 1998. The Mozilla Public License has since become widely used. Many other licenses have been submitted for review and approval by OSI. As you can see, the list of approved licenses is growing.

If you can, use one of the already-approved licenses for distributing your software. But be sure that you read and understand the license terms completely. We encourage you to select a license that is consistent with your business model. And consult with your own attorney, because OSI does not provide legal advice.

- *Academic Free License
- *Apache Software License
- *Apache License, 2.0
- *Apple Public Source License
- *Artistic license
- *Attribution Assurance Licenses
- *BSD license
- *Common Public License
- *CUA Office Public License Version 1.0
- *EU DataGrid Software License
- *Eclipse Public License
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- *GNU General Public License (GPL)
- *GNU Library or "Lesser" General Public License (LGPL)
- *Lucent Public License (Plan9)
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- *IBM Public License
- *Intel Open Source License
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- *MIT license
- *MITRE Collaborative Virtual Workspace License (CVW License)
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- *Python license (CNRI Python License)
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- *wxWindows Library License
- *X.Net License
- *Zope Public License
- *zlib/libpng license

GNU Operating System - Free Software Foundation



Free as in Freedom

Welcome to the GNU Project web server, **www.gnu.org**. The <u>GNU Project</u> was launched in 1984 to develop a complete UNIX style operating system which is <u>free software</u>: the GNU system. (GNU is a recursive acronym for "GNU's Not UNIX"; it is pronounced "guh-noo.") Variants of the GNU operating system, which use the kernel Linux, are now widely used; though these systems are often referred to as "Linux," they are more accurately called <u>GNU/Linux systems</u>.

This is also the web site of the Free Software Foundation (FSF). FSF is the principal organizational sponsor of the GNU Project. FSF receives very little funding from corporations or grant-making foundations. We rely on support from individuals like you who support FSF's mission to preserve, protect and promote the freedom to use, study, copy, modify, and redistribute computer software, and to defend the rights of Free Software users. Last year, over 67% of our operating funds came from individual donors. That ongoing support is the primary way we can continue our work. Please consider making a donation today, becoming an Associate Member of FSF, ordering a copy of Free Software, Free Society, and/or <a href="making a copy of Free Software, Free Society, and/or encouraging your company to become a Corporate Patron of FSF.

The FSF supports the <u>freedoms of speech, press, and association</u> on the Internet, <u>the right to use encryption software for private communication</u>, and the <u>right to write software</u> unimpeded by private monopolies.

- What we provide
- Why we exist
- Where we are going
- How you can help us get there
- Who we are
- What users think of GNU software

The Free Software Definition

(http://www.fsf.org/philosophy/free-sw.html)

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.

"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 refers to four kinds of freedom, for the users of the software:

- The freedom to run the program, for any purpose (freedom 0).
- The freedom to study how the program works, and adapt it to your needs (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 improve the program, and release your improvements to the public, so that the whole community benefits (freedom 3). 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.

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 use a 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 without being required to communicate subsequently with the developer or any other specific entity.

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 the freedoms to make changes, and 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.

In order for these freedoms to be real, they must be irrevocable as long as you do nothing wrong; if the developer of the software has the power to revoke the license, without your doing anything 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.

Thus, 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 sell copies.

``Free software" does not mean ``non-commercial". 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.

Rules about how to package a modified version are acceptable, if they don't effectively block your freedom to release modified versions. Rules that ``if you make the program available in this way, you must make it available in that way also" can be acceptable too, on the same condition. (Note that such a rule still leaves you the choice of whether to publish the program or not.) It is also acceptable for the license to require that, if you have distributed a modified version and a previous developer asks for a copy of it, you must send one.

In the GNU project, we use <u>``copyleft"</u> to protect these freedoms legally for everyone. But <u>non-copylefted free software</u> also exists. We believe there are important reasons why <u>it is</u> better to use copyleft, but if your program is non-copylefted free software, we can still use it.

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.

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 non-free.

We can't possibly list all the possible contract restrictions that would be unacceptable. 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 decide it is non-free.

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 Confusing Words and Phrases that are Worth Avoiding for a discussion of these terms. We also have a list of translations of "free software" 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>clicensing@gnu.org></u>.

If you are contemplating writing a new license, please contact the FSF 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.

What Is Copyleft?

http://www.gnu.org/licenses/licenses.html#WhatIsCopyleft

Copyleft is a general method for making a program free software and requiring all modified and extended versions of the program to be free software as well.

The simplest way to make a program free is to put it in the <u>public domain (18k characters)</u>, uncopyrighted. This allows people to share the program and their improvements, if they are so minded. But it also allows uncooperative people to convert the program into <u>proprietary software (18k characters)</u>. They can make changes, many or few, and distribute the result as a proprietary product. People who receive the program in that modified form do not have the freedom that the original author gave them; the middleman has stripped it away.

In the <u>GNU project</u>, our aim is to give *all* users the freedom to redistribute and change GNU software. If middlemen could strip off the freedom, we might have many users, but those users would not have freedom. So instead of putting GNU software in the public domain, we ``copyleft" it. Copyleft says that anyone who redistributes the software, with or without changes, must pass along the freedom to further copy and change it. Copyleft guarantees that every user has freedom.

Copyleft also provides an <u>incentive</u> for other programmers to add to free software. Important free programs such as the GNU C++ compiler exist only because of this.

Copyleft also helps programmers who want to contribute <u>improvements</u> to <u>free software</u> get permission to do that. These programmers often work for companies or universities that would do almost anything to get more money. A programmer may want to contribute her changes to the community, but her employer may want to turn the changes into a proprietary software product.

When we explain to the employer that it is illegal to distribute the improved version except as free software, the employer usually decides to release it as free software rather than throw it away.

To copyleft a program, we first state that it is copyrighted; then we add distribution terms, which are a legal instrument that gives everyone the rights to use, modify, and redistribute the program's code *or any program derived from it* but only if the distribution terms are unchanged. Thus, the code and the freedoms become legally inseparable.

Proprietary software developers use copyright to take away the users' freedom; we use copyright to guarantee their freedom. That's why we reverse the name, changing ``copyright" into ``copyleft."

Copyleft is a general concept; there are many ways to fill in the details. In the GNU Project, the specific distribution terms that we use are contained in the GNU General Public License, the GNU Lesser General Public License and the GNU Free Documentation License.

The appropriate license is included in many manuals and in each GNU source code distribution.

The GNU GPL is designed so that you can easily apply it to your own program if you are the copyright holder. You don't have to modify the GNU GPL to do this, just add notices to your program which refer properly to the GNU GPL. Please note that you must use the entire text of the GPL, if you use it. It is an integral whole, and partial copies are not permitted. (Likewise for the LGPL and the FDL.)

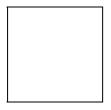
Using the same distribution terms for many different programs makes it easy to copy code between various different programs. Since they all have the same distribution terms, there is no need to think about whether the terms are compatible. The Lesser GPL includes a provision that lets you alter the distribution terms to the ordinary GPL, so that you can copy code into another program covered by the GPL.

http://wv	/w.fsf.org/philos	sophy/selling.htr

Selling Free Software

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Many people believe that the spirit of the GNU project is that you should not charge money for distributing copies of software, or that you should charge as little as possible -- just enough to cover the cost.

Actually we encourage people who redistribute <u>free software</u> to charge as much as they wish or can. If this seems surprising to you, please read on.

The word ``free" has two legitimate general meanings; it can refer either to freedom or to price. When we speak of ``free software", we're talking about freedom, not price. (Think of ``free speech", not ``free beer".) Specifically, it means that a user is free to run the program, change the program, and redistribute the program with or without changes.

Free programs are sometimes distributed gratis, and sometimes for a substantial price. Often the same program is available in both ways from different places. The program is free regardless of the price, because users have freedom in using it.

Non-free programs are usually sold for a high price, but sometimes a store will give you a copy at no charge. That doesn't make it free software, though. Price or no price, the program is non-free because users don't have freedom.

Since free software is not a matter of price, a low price isn't more free, or closer to free. So if you are redistributing copies of free software, you might as well charge a substantial fee and *make some money*. Redistributing free software is a good and legitimate activity; if you do it, you might as well make a profit from it.

Free software is a community project, and everyone who depends on it ought to look for ways to contribute to building the community. For a distributor, the way to do this is to give a part of the profit to the Free Software Foundation or some other free software development project. By funding development, you can advance the world of free software.

Distributing free software is an opportunity to raise funds for development. Don't waste it!

In order to contribute funds, you need to have some extra. If you charge too low a fee, you won't have anything to spare to support development.

Will a higher distribution price hurt some users?

People sometimes worry that a high distribution fee will put free software out of range for users who don't have a lot of money. With <u>proprietary software (18k characters)</u>, a high price does exactly that -- but free software is different.

The difference is that free software naturally tends to spread around, and there are many ways to get it.

Software hoarders try their damnedest to stop you from running a proprietary program without paying the standard price. If this price is high, that does make it hard for some users to use the program.

With free software, users don't *have* to pay the distribution fee in order to use the software. They can copy the program from a friend who has a copy, or with the help of a friend who has network access. Or several users can join together, split the price of one CD-ROM, then each in turn can install the software. A high CD-ROM price is not a major obstacle when the software is free.

Will a higher distribution price discourage use of free software?

Another common concern is for the popularity of free software. People think that a high price for distribution would reduce the number of users, or that a low price is likely to encourage users.

This is true for proprietary software -- but free software is different. With so many ways to get copies, the price of distribution service has less effect on popularity.

In the long run, how many people use free software is determined mainly by *how much free* software can do, and how easy it is to use. Many users will continue to use proprietary software if free software can't do all the jobs they want to do. Thus, if we want to increase the number of users in the long run, we should above all *develop more free software*.

The most direct way to do this is by writing needed <u>free software</u> or <u>manuals</u> yourself. But if you do distribution rather than writing, the best way you can help is by raising funds for others to write them.

The term "selling software" can be confusing too

Strictly speaking, ``selling" means trading goods for money. Selling a copy of a free program is legitimate, and we encourage it.

However, when people think of <u>``selling software"</u>, they usually imagine doing it the way most companies do it: making the software proprietary rather than free.

So unless you're going to draw distinctions carefully, the way this article does, we suggest it is better to avoid using the term ``selling software" and choose some other wording instead. For example, you could say ``distributing free software for a fee"--that is unambiguous.

High or low fees, and the GNU GPL

Except for one special situation, the <u>GNU General Public License (20k characters)</u> (GNU GPL) has no requirements about how much you can charge for distributing a copy of free

software. You can charge nothing, a penny, a dollar, or a billion dollars. It's up to you, and the marketplace, so don't complain to us if nobody wants to pay a billion dollars for a copy.

The one exception is in the case where binaries are distributed without the corresponding complete source code. Those who do this are required by the GNU GPL to provide source code on subsequent request. Without a limit on the fee for the source code, they would be able set a fee too large for anyone to pay--such as a billion dollars--and thus pretend to release source code while in truth concealing it. So in this case we have to limit the fee for source, to ensure the user's freedom. In ordinary situations, however, there is no such justification for limiting distribution fees, so we do not limit them.

Sometimes companies whose activities cross the line of what the GNU GPL permits plead for permission, saying that they ``won't charge money for the GNU software' or such like. They don't get anywhere this way. Free software is about freedom, and enforcing the GPL is defending freedom. When we defend users' freedom, we are not distracted by side issues such as how much of a distribution fee is charged. Freedom is the issue, the whole issue, and the only issue.

Why you shouldn't use the Library GPL for your next library

http://www.fsf.org/licenses/why-not-lgpl.html

by Richard Stallman

me the

The GNU Project has two principal licenses to use for libraries. One is the GNU Library GPL; the other is the ordinary GNU GPL. The choice of license makes a big difference: using the Library GPL permits use of the library in proprietary programs; using the ordinary GPL for a library makes it available only for free programs.

Which license is best for a given library is a matter of strategy, and it depends on the details of the situation. At present, most GNU libraries are covered by the Library GPL, and that means we are using only one of these two strategies, neglecting the other. So we are now seeking more libraries to release **under the ordinary GPL**.

Proprietary software developers have the advantage of money; free software developers need to make advantages for each other. Using the ordinary GPL for a library gives free software developers an advantage over proprietary developers: a library that they can use, while proprietary developers cannot use it.

Using the ordinary GPL is not advantageous for every library. There are reasons that can make it better to use the Library GPL in certain cases. The most common case is when a free library's features are readily available for proprietary software through other alternative libraries. In that case, the library cannot give free software any particular advantage, so it is better to use the Library GPL for that library.

This is why we used the Library GPL for the GNU C library. After all, there are plenty of other C libraries; using the GPL for ours would have driven proprietary software developers to use another--no problem for them, only for us.

However, when a library provides a significant unique capability, like GNU Readline, that's a horse of a different color. The Readline library implements input editing and history for interactive programs, and that's a facility not generally available elsewhere. Releasing it under the GPL and limiting its use to free programs gives our community a real boost. At least one application program is free software today specifically because that was necessary for using Readline.

If we amass a collection of powerful GPL-covered libraries that have no parallel available to proprietary software, they will provide a range of useful modules to serve as building blocks in new free programs. This will be a significant advantage for further free software development, and some projects will decide to make software free in order to use these libraries. University projects can easily be influenced; nowadays, as companies begin to consider making software free, even some commercial projects can be influenced in this way.

Proprietary software developers, seeking to deny the free competition an important advantage, will try to convince authors not to contribute libraries to the GPL-covered

collection. For example, they may appeal to the ego, promising "more users for this library" if we let them use the code in proprietary software products. Popularity is tempting, and it is easy for a library developer to rationalize the idea that boosting the popularity of that one library is what the community needs above all.

But we should not listen to these temptations, because we can achieve much more if we stand together. We free software developers should support one another. By releasing libraries that are limited to free software only, we can help each other's free software packages outdo the proprietary alternatives. The whole free software movement will have more popularity, because free software as a whole will stack up better against the competition.

Since the name "Library GPL" conveys the wrong idea about this question, we are planning to change the name to "Lesser GPL." Actually implementing the name change may take some time, but you don't have to wait--you can release GPL-covered libraries now.

[Historical note: The Lesser GPL is now available.]

Why ``Free Software" is better than ``Open Source"

While free software by any other name would give you the same freedom, it makes a big difference which name we use: different words *convev different ideas*.

In 1998, some of the people in the free software community began using the term <u>``open source software"</u> instead of <u>``free software"</u> to describe what they do. The term ``open source" quickly became associated with a different approach, a different philosophy, different values, and even a different criterion for which licenses are acceptable. The Free Software movement and the Open Source movement are today <u>separate movements</u> with different views and goals, although we can and do work together on some practical projects.

The fundamental difference between the two movements is in their values, their ways of looking at the world. For the Open Source movement, the issue of whether software should be open source is a practical question, not an ethical one. As one person put it, ``Open source is a development methodology; free software is a social movement." For the Open Source movement, non-free software is a suboptimal solution. For the Free Software movement, non-free software is a social problem and free software is the solution.

Relationship between the Free Software movement and Open Source movement

The Free Software movement and the Open Source movement are like two political camps within the free software community.

Radical groups in the 1960s developed a reputation for factionalism: organizations split because of disagreements on details of strategy, and then treated each other as enemies. Or at least, such is the image people have of them, whether or not it was true.

The relationship between the Free Software movement and the Open Source movement is just the opposite of that picture. We disagree on the basic principles, but agree more or less on the practical recommendations. So we can and do work together on many specific projects. We don't think of the Open Source movement as an enemy. The enemy is proprietary software.

We are not against the Open Source movement, but we don't want to be lumped in with them. We acknowledge that they have contributed to our community, but we created this community, and we want people to know this. We want people to associate our achievements with our values and our philosophy, not with theirs. We want to be heard, not obscured behind a group with different views. To prevent people from thinking we are part of them, we take pains to avoid using the word ``open" to describe free software, or its contrary, ``closed", in talking about non-free software.

So please mention the Free Software movement when you talk about the work we have done, and the software we have developed--such as the GNU/Linux operating system.

Comparing the two terms

This rest of this article compares the two terms ``free software" and ``open source". It shows why the term ``open source" does not solve any problems, and in fact creates some.

Ambiguity

The term ``free software" has an ambiguity problem: an unintended meaning, ``Software you can get for zero price," fits the term just as well as the intended meaning, ``software which gives the user certain freedoms." We address this problem by publishing a more precise definition of free software, but this is not a perfect solution; it cannot completely eliminate the problem. An unambiguously correct term would be better, if it didn't have other problems.

Unfortunately, all the alternatives in English have problems of their own. We've looked at many alternatives that people have suggested, but none is so clearly ``right" that switching to it would be a good idea. Every proposed replacement for ``free software" has a similar kind of semantic problem, or worse--and this includes ``open source software."

The official definition of ``open source software," as published by the Open Source Initiative, is very close to our definition of free software; however, it is a little looser in some respects, and they have accepted a few licenses that we consider unacceptably restrictive of the users. However, the obvious meaning for the expression ``open source software" is ``You can look at the source code." This is a much weaker criterion than free software; it includes free software, but also includes semi-free programs such as Xv, and even some proprietary programs, including Qt under its original license (before the QPL).

That obvious meaning for ``open source" is not the meaning that its advocates intend. The result is that most people misunderstand what those advocates are advocating. Here is how writer Neal Stephenson defined ``open source":

Linux is ``open source" software meaning, simply, that anyone can get copies of its source code files.

I don't think he deliberately sought to reject or dispute the ``official" definition. I think he simply applied the conventions of the English language to come up with a meaning for the term. The state of Kansas published a similar definition:

Make use of open-source software (OSS). OSS is software for which the source code is freely and publicly available, though the specific licensing agreements vary as to what one is allowed to do with that code.

Of course, the open source people have tried to deal with this by publishing a precise definition for the term, just as we have done for ``free software."

But the explanation for ``free software" is simple--a person who has grasped the idea of ``free speech, not free beer" will not get it wrong again. There is no such succinct way to explain the official meaning of ``open source" and show clearly why the natural definition is the wrong one.

Fear of Freedom

The main argument for the term ``open source software" is that ``free software" makes some people uneasy. That's true: talking about freedom, about ethical issues, about responsibilities as well as convenience, is asking people to think about things they might rather ignore. This can trigger discomfort, and some people may reject the idea for that. It does not follow that society would be better off if we stop talking about these things.

Years ago, free software developers noticed this discomfort reaction, and some started exploring an approach for avoiding it. They figured that by keeping quiet about ethics and freedom, and talking only about the immediate practical benefits of certain free software, they might be able to ``sell" the software more effectively to certain users, especially business. The term ``open source" is offered as a way of doing more of this--a way to be ``more acceptable to business." The views and values of the Open Source movement stem from this decision.

This approach has proved effective, in its own terms. Today many people are switching to free software for purely practical reasons. That is good, as far as it goes, but that isn't all we need to do! Attracting users to free software is not the whole job, just the first step.

Sooner or later these users will be invited to switch back to proprietary software for some practical advantage. Countless companies seek to offer such temptation, and why would users decline? Only if they have learned to *value the freedom* free software gives them, for its own sake. It is up to us to spread this idea--and in order to do that, we have to talk about freedom. A certain amount of the ``keep quiet" approach to business can be useful for the community, but we must have plenty of freedom talk too.

At present, we have plenty of ``keep quiet", but not enough freedom talk. Most people involved with free software say little about freedom--usually because they seek to be ``more acceptable to business." Software distributors especially show this pattern. Some GNU/Linux operating system distributions add proprietary packages to the basic free system, and they invite users to consider this an advantage, rather than a step backwards from freedom.

We are failing to keep up with the influx of free software users, failing to teach people about freedom and our community as fast as they enter it. This is why non-free software (which Qt was when it first became popular), and partially non-free operating system distributions, find such fertile ground. To stop using the word ``free" now would be a mistake; we need more, not less, talk about freedom.

If those using the term ``open source" draw more users into our community, that is a contribution, but the rest of us will have to work even harder to bring the issue of freedom to those users' attention. We have to say, ``It's free software and it gives you freedom!"--more and louder than ever before.

Would a Trademark Help?

The advocates of ``open source software" tried to make it a trademark, saying this would enable them to prevent misuse. This initiative was later dropped, the term being too descriptive to qualify as a trademark; thus, the legal status of ``open source" is the same as that of ``free software": there is no *legal* constraint on using it. I have heard reports of a number of companies' calling software packages ``open source" even though they did not fit the official definition; I have observed some instances myself.

But would it have made a big difference to use a term that is a trademark? Not necessarily.

Companies also made announcements that give the impression that a program is ``open source software" without explicitly saying so. For example, one IBM announcement, about a program that did not fit the official definition, said this:

As is common in the open source community, users of the \dots technology will also be able to collaborate with IBM \dots

This did not actually say that the program was ``open source", but many readers did not notice that detail. (I should note that IBM was sincerely trying to make this program free software, and later adopted a new license which does make it free software and ``open source"; but when that announcement was made, the program did not qualify as either one.)

And here is how Cygnus Solutions, which was formed to be a free software company and subsequently branched out (so to speak) into proprietary software, advertised some proprietary software products:

Cygnus Solutions is a leader in the open source market and has just launched two products into the [GNU/]Linux marketplace.

Unlike IBM, Cygnus was not trying to make these packages free software, and the packages did not come close to qualifying. But Cygnus didn't actually say that these are ``open source software", they just made use of the term to give careless readers that impression.

These observations suggest that a trademark would not have truly prevented the confusion that comes with the term ``open source".

Misunderstandings(?) of ``Open Source"

The Open Source Definition is clear enough, and it is quite clear that the typical non-free program does not qualify. So you would think that ``Open Source company" would mean one whose products are free software (or close to it), right? Alas, many companies are trying to give it a different meaning.

At the ``Open Source Developers Day" meeting in August 1998, several of the commercial developers invited said they intend to make only a part of their work free software (or ``open source"). The focus of their business is on developing proprietary add-ons (software or manuals) to sell to the users of this free software. They ask us to regard this as legitimate, as part of our community, because some of the money is donated to free software development.

In effect, these companies seek to gain the favorable cachet of ``open source" for their proprietary software products--even though those are not ``open source software"--because they have some relationship to free software or because the same company also maintains some free software. (One company founder said quite explicitly that they would put, into the free package they support, as little of their work as the community would stand for.)

Over the years, many companies have contributed to free software development. Some of these companies primarily developed non-free software, but the two activities were separate; thus, we could ignore their non-free products, and work with them on free software projects. Then we could honestly thank them afterward for their free software contributions, without talking about the rest of what they did.

We cannot do the same with these new companies, because they won't let us. These companies actively invite the public to lump all their activities together; they want us to regard their non-free software as favorably as we would regard a real contribution, although it is not one. They present themselves as ``open source companies," hoping that we will get a warm fuzzy feeling about them, and that we will be fuzzy-minded in applying it.

This manipulative practice would be no less harmful if it were done using the term ``free software." But companies do not seem to use the term ``free software" that way; perhaps its association with idealism makes it seem unsuitable. The term ``open source" opened the door for this.

At a trade show in late 1998, dedicated to the operating system often referred to as <u>``Linux"</u>, the featured speaker was an executive from a prominent software company. He was probably invited on account of his company's decision to ``support" that system. Unfortunately, their form of ``support" consists of releasing non-free software that works with the system--in other words, using our community as a market but not contributing to it.

He said, ``There is no way we will make our product open source, but perhaps we will make it `internal' open source. If we allow our customer support staff to have access to the source code, they could fix bugs for the customers, and we could provide a better product and better service." (This is not an exact quote, as I did not write his words down, but it gets the gist.)

People in the audience afterward told me, ``He just doesn't get the point." But is that so? Which point did he not get?

He did not miss the point of the Open Source movement. That movement does not say users should have freedom, only that allowing more people to look at the source code and help improve it makes for faster and better development. The executive grasped that point completely; unwilling to carry out that approach in full, users included, he was considering implementing it partially, within the company.

The point that he missed is the point that ``open source" was designed not to raise: the point that users *deserve* freedom.

Spreading the idea of freedom is a big jobit needs your help. That's why we stick to the term
`free software" in the GNU Project, so we can help do that job. If you feel that freedom and
community are important for their own sakenot just for the convenience they bringplease
oin us in using the term ``free software".

Joe Barr wrote an article called <u>Live and let license</u> that gives his perspective on this issue.

Lakhani and Wolf's <u>paper on the motivation of free software developers</u> says that a considerable fraction are motivated by the view that software should be free. This was despite the fact that they surveyed the developers on SourceForge, a site that does not support the view that this is an ethical issue.

The GNU General Public License

Extracted from 'The Open Source Definition', Bruce Perens http://www.oreilly.com/catalog/opensources/book/perens.html

Please see Appendix B for the full text of the GPL. The GPL is a political manifesto as well as a software license, and much of its text is concerned with explaining the rationale behind the license. This political dialogue has put some people off, and thus provided some of the reason that people have written other free software licenses. However, the GPL was assembled with the assistance of law professors, and is much better written than most of its ilk. I'd strongly urge that you use the GPL, or its library variant the LGPL, if you can. If you choose another license, or write your own, be sure about your reasons. People who write their own licenses should consider that this is not a step to be taken lightly. The unexpected complications of an ill-considered license can create a decades-long burden for software users.

The text of the GPL is not itself under the GPL. Its license is simple: Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed. An important point here is that the text of the licenses of Open Source software are generally not themselves Open Source. Obviously, a license would offer no protection if anyone could change it.

The provisions of the GPL satisfy the Open Source Definition. The GPL does not require any of the provisions permitted by paragraph 4 of the Open Source Definition, *Integrity of the Author's Source Code*.

The GPL does not allow you to *take modifications private*. Your modifications must be distributed under the GPL. Thus, the author of a GPL-ed program is likely to receive improvements from others, including commercial companies who modify his software for their own purposes.

The GPL doesn't allow the incorporation of a GPL-ed program into a proprietary program. The GPL's definition of a proprietary program is any program with a license that doesn't give you as many rights as the GPL.

There are a few loopholes in the GPL that allow it to be used in programs that are not entirely Open Source. Software libraries that are normally distributed with the compiler or operating system you are using may be linked with GPL-ed software; the result is a partially-free program. The copyright holder (generally the author of the program) is the person who places the GPL on the program and has the right to violate his own license. This was used by the KDE authors to distribute their programs with Qt before Troll Tech placed an Open Source license on Qt. However, this right does not extend to any third parties who redistribute the program--they must follow all of the terms of the license, even the ones that the copyright holder violates, and thus it's problematical to redistribute a GPL-ed program containing Qt. The KDE developers appear to be addressing this problem by applying the LGPL, rather than the GPL, to their software.

The political rhetoric in the GPL puts some people off. Some of them have chosen a less appropriate license for their software simply because they eschew Richard Stallman's ideas and don't want to see them repeated in their own software packages.

The GNU Library General Public License

The LGPL is a derivative of the GPL that was designed for software libraries. Unlike the GPL, a LGPL-ed program can be incorporated into a proprietary program. The C-language library provided with Linux systems is an example of LGPL-ed software--it can be used to build proprietary programs, otherwise Linux would only be useful for free software authors.

An instance of an LGPL-ed program can be converted into a GPL-ed one at any time. Once that happens, you can't convert that instance, or anything derived from it, back into an LGPL-ed program.

The rest of the provisions of the LGPL are similar to those in the GPL--in fact, it includes the GPL by reference.

Open Source and Free Software

http://www.slackware.com/book/index.php?source=x68.html

Within the Linux community, there are two major ideological movements at work. The Free Software movement, which we'll get into in a moment, is working toward the goal of making all software free of intellectual property restrictions, which it believes hamper technical improvement and work against the good of the community. The Open Source movement is working toward most of the same goals, but takes a more "pragmatic" approach to them, preferring to base its arguments on the economic and technical merits of making source code freely available, rather than the moral and ethical principles that drive the Free Software Movement.

The Free Software movement is headed up by the Free Software Foundation, which is a fund-raising organization for the GNU project. Free software is more of an ideology. The oft-used expression is "free speech, not free beer". In essence, free software is an attempt to guarantee certain rights for both users and developers. These freedoms include the freedom to run the program for any reason, the freedom to study and modify the source code, the freedom to redistribute the source, and the freedom to share any modifications you make. In order to guarantee these freedoms, the GNU General Public License (GPL) was created. The GPL, in brief, provides that anyone distributing a compiled program which is licensed under the GPL must also provide source code, and is free to make modifications to the program as long as those modifications are also made available in source code form. This guarantees that once a program is "opened" to the community, it cannot be "closed" except by consent of every author of every piece of code (even the modifications) within it. Most Linux programs are licensed under the GPL.

It is important to note that the GPL does not say anything about price. As odd as it may sound, you can charge for free software. The "free" part is in the liberties you have with the source code, not in the price you pay for the software. (However, once someone has sold you, or even given you, a compiled program licensed under the GPL they *are* obligated to provide its source code as well.)

At the forefront of the younger Open Source movement, the Open Source Initiative is an organization that solely exists to gain support for open source software. That is, software that has the source code available as well as the ready-to-run program. They do not offer a specific license, but instead they support the various types of open source licenses available.

The idea behind the OSI is to get more companies behind open source by allowing them to write their own open source licenses and have those licenses certified by the Open Source Initiative. Many companies want to release source code, but do not want to use the GPL. Since they cannot radically change the GPL, they are offered the opportunity to provide their own license and have it certified by this organization.

While the Free Software Foundation and the Open Source Initiative work to help each other, they are not the same thing. The Free Software Foundation uses a specific license and provides software under that license. The Open Source Initiative seeks

support for all open source licenses, including the one from the Free Software Foundation. The grounds on which each argues for making source code freely available sometimes divides the two movements, but the very fact that two ideologically diverse groups are working toward the same goal lends credence to the efforts of each.

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If you have Invariant Sections without Cover Texts, or some other combination of the three, merge those two alternatives to suit the situation.

If your document contains nontrivial examples of program code, we recommend releasing these examples in parallel under your choice of free software license, such as the GNU General Public License, to permit their use in free software.