



Free and Open Source Software Fact Sheet

What is "Free Software"?

The term "Free Software" really doesn't have anything to do with how much money you paid for the software... it's actually about the rights or "freedom" the authors of that software grant to you in the software licence.

Conventional "shrink -wrapped" software usually involves a licence that restricts your rights — for example:

- You must not copy this software
- You don't have the right to see how this software was written

Conversely, a Free Open Source Software (FOSS) licence explicitly grants both of these rights to everyone! The fact that most FOSS is available at no cost is just a bonus!

Why is Free Software important?

Free and Open Source Software (FOSS) has a property that no other kind of software can provide: transparency. Because the code for FOSS is publicly available, it allows it to be scrutinised by anyone to see exactly what it will do when it is run. It avoids nasty surprises, such as spyware, result rigging and all kinds of issues that we can't be absolutely sure to avoid in closed software, where the source code is not publicly available. You can be sure that when you're using FOSS, you are in control of your computer. Your private data stays private. You can be sure that the software is not reporting you or what you do on your computer to some one else via the internet.

Transparency also makes FOSS software better - from finding and fixing bugs, to adding new features, to improving the software's documentation, or even creating artwork to be used in the software - anyone who wants to contribute to improving the software can do so.

Free and Open Source Software FAQ

I bought software. Why can't I share it?

You may think that when you pay for software that you own it; you don't. Software you use isn't sold to you, it is licensed for you to use. Users are only granted permission to use the software under specific conditions laid out in a End User License Agreement (EULA).

An example from Windows XP license: (<http://www.microsoft.com/windowsxp/home/eula.mspx>) :

"1.1 Installation and use.

You may install, use, access, display and run one copy of the Software on a single computer, such as a workstation, terminal or other device ("Workstation Computer").

The Software may not be used by more than one processor at any one time on any single Workstation Computer."



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What is Proprietary Software?

Proprietary software (also called non-free software) is software with restrictions on using, copying and modifying as enforced by the proprietor (i.e. the owner or creator of the software). Restrictions on use, modification and copying is achieved by either legal or technical means and sometimes both.

"Technical means" include releasing machine-readable binaries to users and withholding the human-readable source code. (See "Source Code" below for more details.) "Legal means" can involve software licensing, copyright, and patent law. (From : http://en.wikipedia.org/wiki/Proprietary_software)

What is Source code?

A key feature of proprietary software is that the the source code is not available and is kept secret. The source code is the human editable blueprints to alter the software. With source code, you can modify the program's behaviour and how the program operates.

Think of a software program as a cake: the recipe for the "cake" determines how the cake (program) will turn out. Once the cake has been baked, you can't separate it into its ingredients. You can, however, change the recipe, and modify how the cake turns out. Similarly with Open Source software, you are allowed access to the "recipe" called "source code", so that if you are capable of doing programming, you can modify it to suit your needs. This is not normally possible with proprietary software.

Disadvantages of proprietary software

- The cost of software license fees which must be paid for each machine it is installed on; if it's installed on 10 computers, you pay 10 times for the licence.
- Closed formats - data created by proprietary applications can only be read by the vendor's application. As such, you can only pay for/upgrade to whatever the vendor offers. And the vendor could withdraw support or go out of business. Then you may be unable to read your own data!
- anti-piracy methods to prevent software piracy can lock you out of your data (sometimes accidentally) and frustrate legitimate use.
- No access to the source code means you can't modify the program to suit your needs.

So what exactly is “Free” software? And why is free in quotes?

“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.



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But “Free” software still only licenses, doesn’t it?

A free software license is a software license which grants recipients rights to modify and redistribute the software which would otherwise be prohibited by copyright law. A free software license grants, to the recipients, freedoms in the form of permissions to modify or distribute copyrighted work. (From : http://en.wikipedia.org/wiki/Free_software_license)

Free licenses

The GPL - One of the most popular Free Software Licenses is the GNU General Public License (GPL) originally written by Richard Stallman. The GPL grants the recipients of a computer program the rights of the free software definition and requires derived works to be available under the same license.

What’s the difference between free software and Open Source software?

Open Source software treats free software's precondition to see/alter/distribute source code as more of a practical value rather than a moral necessity for users. Put another way, free software is a social movement while open source is a development methodology.

The Open Source Initiative (OSI ; <http://opensource.org/>) organisation was formed in 1998 to promote and advocate open source. It also publishes a definition which lists 10 criteria for software to be considered open source.

What are the Benefits of Free and Open Source software?

- no per user license fees for each machine.
- multi-platform - most application software is available for different operating systems - Windows, MacOS X and GNU/Linux
- data formats are specified - other applications (even on other operating systems) can be developed to read/alter them.