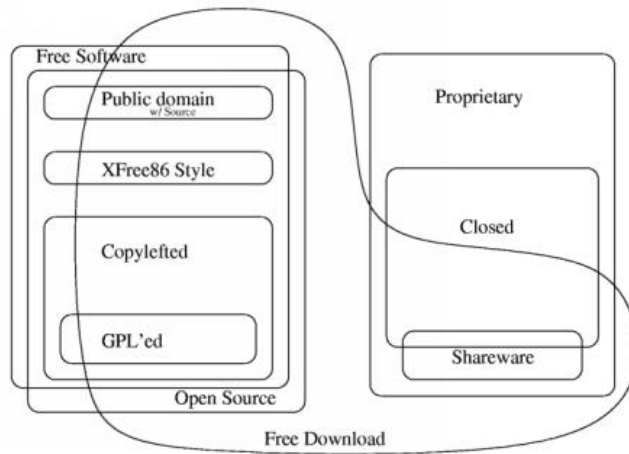**Translations of this page**

Categories of Free and Non-Free Software

Also note Confusing Words which You Might Want to Avoid.

This diagram by Chao-Kuei explains the different categories of software. It's available as an XFig file, as a JPEG picture and as a 1.5 magnified PNG image, under the terms of any of the GNU GPL v2 or later, the GNU FDL v1.2 or later, or the Creative Commons Attribution-Share Alike v2.0 or later.

Free software

Free software is software that comes with permission for anyone to use, copy, and distribute, either verbatim or with modifications, either gratis or for a fee. In particular, this means that source code must be available. "If it's not source, it's not software." This is a simplified definition; see also the full definition.
If a program is free, then it can potentially be included in a free operating system such as GNU, or free versions of the GNU/Linux system.

There are many different ways to make a program free—many questions of detail, which could be decided in more than one way and still make the program free. Some of the possible variations are described below. For information on specific free software licenses, see the license list page.

Free software is a matter of freedom, not price. But proprietary software companies sometimes use the term "free software" to refer to price. Sometimes they mean that you can obtain a binary copy at no charge; sometimes they mean that a copy is included on a computer that you are buying. This has nothing to do with what we mean by free software in the GNU project.

Because of this potential confusion, when a software company says its product is free software, always check the actual distribution terms to see whether users really have all the freedoms that free software implies. Sometimes it really is free software; sometimes it isn't.

Many languages have two separate words for "free" as in freedom and "free" as in zero price. For example, French has "libre" and "gratuit". Not so English; there is a word "gratis" that refers unambiguously to price, but no common adjective that refers unambiguously to freedom. So if you are speaking another language, we suggest you translate "free" into your language to make it clearer. See our list of translations of the term "free software" into various other languages.

Free software is often more reliable than non-free software.

Open Source software

The term "open source" software is used by some people to mean more or less the same category as free software. It is

not exactly the same class of software: they accept some licenses that we consider too restrictive, and there are free software licenses they have not accepted. However, the differences in extension of the category are small: nearly all free software is open source, and nearly all open source software is free.

We prefer the term "free software" because it refers to freedom—something that the term "open source" does not do.

Public domain software

Public domain software is software that is not copyrighted. If the source code is in the public domain, that is a special case of non-copylefted free software, which means that some copies or modified versions may not be free at all. In some cases, an executable program can be in the public domain but the source code is not available. This is not free software, because free software requires accessibility of source code. Meanwhile, most free software is not in the public domain; it is copyrighted, and the copyright holders have legally given permission for everyone to use it in freedom, using a free software license.

Sometimes people use the term "public domain" in a loose fashion to mean "free" or "available gratis." However, "public domain" is a legal term and means, precisely, "not copyrighted". For clarity, we recommend using "public domain" for that meaning only, and using other terms to convey the other meanings.

Under the Berne Convention, which most countries have signed, anything written down is automatically copyrighted. This includes programs. Therefore, if you want a program you have written to be in the public domain, you must take some legal steps to disclaim the copyright on it; otherwise, the program is copyrighted.

Copylefted software

Copylefted software is free software whose distribution terms ensure that all copies of all versions are free software. This means, for instance, that copyleft licenses generally disallow others to add additional requirements to the software (though a limited set of safe added requirements can be allowed) and require making source code available. Some copyleft licenses, such as GPL version 3, block other means of turning software proprietary. In the GNU Project, we copyleft almost all the software we write, because our goal is to give *every* user the freedoms implied by the term "free software." See Copylefted for more explanation of how copyleft works and why we use it.

Copyleft is a general concept; to actually copyleft a program, you need to use a specific set of distribution terms. There are many possible ways to write copyleft distribution terms, so in principle there can be many copyleft free software licenses. However, in actual practice nearly all copylefted software uses the GNU General Public License. Two different copyleft licenses are usually "incompatible", which means it is illegal to merge the code using one license with the code using the other license; therefore, it is good for the community if people use a single copyleft license.

Non-copylefted free software

Non-copylefted free software comes from the author with permission to redistribute and modify, and also to add additional restrictions to it. If a program is free but not copylefted, then some copies or modified versions may not be free at all. A software company can compile the program, with or without modifications, and distribute the executable file as a proprietary software product.

The X Window System illustrates this. The X Consortium releases X11 with distribution terms that make it non-copylefted free software. If you wish, you can get a copy which has those distribution terms and is free. However, there are non-free versions as well, and there are popular workstations and PC graphics boards for which non-free versions are the only ones that work. If you are using this hardware, X11 is not free software for you. The developers of X11 even made X11 non-free for a while.

GPL-covered software

The GNU GPL (General Public License) is one specific set of distribution terms for copylefting a program. The GNU Project uses it as the distribution terms for most GNU software.

The GNU system

The GNU system is the Unix-like operating system, which is entirely free software, that we in the GNU Project have developed since 1984.
A Unix-like operating system consists of many programs. The GNU system includes all the GNU software, as well as many other packages such as the X Window System and TeX which are not GNU software.

The first test release of the complete GNU system was in 1996. This includes the GNU Hurd, our kernel, developed since 1990. In 2001 the GNU system (including the GNU Hurd) began working fairly reliably, but the Hurd still lacks some important features, so it is not widely used. Meanwhile, the GNU/Linux system, an offshoot of the GNU system which uses Linux as the kernel instead of the GNU Hurd, has been a great success since the 90s.

Since the purpose of GNU is to be free, every single component in the GNU system has to be free software. They don't all have to be copylefted, however; any kind of free software is legally suitable to include if it helps meet technical goals. And it isn't necessary for all the components to be GNU software, individually. GNU can and does include non-copylefted free software such as the X Window System that were developed by other projects.

GNU programs

"GNU programs" is equivalent to GNU software. A program Foo is a GNU program if it is GNU software. We also sometimes say it is a "GNU package".

GNU software

GNU software is software that is released under the auspices of the GNU Project. If a program is GNU software, we also say that it is a GNU program or a GNU package. The README or manual of a GNU package should say it is one; also, the Free Software Directory indentifies all GNU packages.
Most GNU software is copylefted, but not all; however, all GNU software must be free software.

Some GNU software is written by staff of the Free Software Foundation, but most GNU software is contributed by volunteers. Some contributed software is copyrighted by the Free Software Foundation; some is copyrighted by the contributors who wrote it.

Non-free software

Non-free software is any software that is not free. This includes semi-free software and proprietary software.

Semi-free software

Semi-free software is software that is not free, but comes with permission for individuals to use, copy, distribute, and modify (including distribution of modified versions) for non-profit purposes. PGP is an example of a semi-free program.
Semi-free software is much better ethically than proprietary software, but it still poses problems, and we cannot use it in a free operating system.

The restrictions of copyleft are designed to protect the essential freedoms for all users. For us, the only justification

for any substantive restriction on using a program is to prevent other people from adding other restrictions. Semi-free programs have additional restrictions, motivated by purely selfish goals.

It is impossible to include semi-free software in a free operating system. This is because the distribution terms for the operating system as a whole are the conjunction of the distribution terms for all the programs in it. Adding one semi-free program to the system would make the system *as a whole* just semi-free. There are two reasons we do not want that to happen:

- We believe that free software should be for everyone—including businesses, not just schools and hobbyists. We want to invite business to use the whole GNU system, and therefore we must not include a semi-free program in it.

- Commercial distribution of free operating systems, including the GNU/Linux system, is very important, and users appreciate the convenience of commercial CD-ROM distributions. Including one semi-free program in an operating system would cut off commercial CD-ROM distribution for it.

The Free Software Foundation itself is non-commercial, and therefore we would be legally permitted to use a semi-free program "internally". But we don't do that, because that would undermine our efforts to obtain a program which we could also include in GNU.

If there is a job that needs doing with software, then until we have a free program to do the job, the GNU system has a gap. We have to tell volunteers, "We don't have a program yet to do this job in GNU, so we hope you will write one." If we ourselves used a semi-free program to do the job, that would undermine what we say; it would take away the impetus (on us, and on others who might listen to our views) to write a free replacement. So we don't do that.

Proprietary software

Proprietary software is software that is not free or semi-free. Its use, redistribution or modification is prohibited, or requires you to ask for permission, or is restricted so much that you effectively can't do it freely.
The Free Software Foundation follows the rule that we cannot install any proprietary program on our computers except temporarily for the specific purpose of writing a free replacement for that very program. Aside from that, we feel there is no possible excuse for installing a proprietary program.

For example, we felt justified in installing Unix on our computer in the 1980s, because we were using it to write a free replacement for Unix. Nowadays, since free operating systems are available, the excuse is no longer applicable; we have eliminated all our non-free operating systems, and any new computer we install must run a completely free operating system.

We don't insist that users of GNU, or contributors to GNU, have to live by this rule. It is a rule we made for ourselves. But we hope you will decide to follow it too.

Freeware

The term "freeware" has no clear accepted definition, but it is commonly used for packages which permit redistribution but not modification (and their source code is not available). These packages are *not* free software, so please don't use "freeware" to refer to free software.

Shareware

Shareware is software which comes with permission for people to redistribute copies, but says that anyone who continues to use a copy is *required* to pay a license fee.
Shareware is not free software, or even semi-free. There are two reasons it is not:

- For most shareware, source code is not available; thus, you cannot modify the program at all.

- Shareware does not come with permission to make a copy and install it without paying a license fee, not even for individuals engaging in nonprofit activity. (In practice, people often disregard the distribution terms and do this anyway, but the terms don't permit it.)

Private software

Private or custom software is software developed for one user (typically an organization or company). That user keeps it and uses it, and does not release it to the public either as source code or as binaries.
A private program is free software in a trivial sense if its unique user has full rights to it. However, in a deeper sense, it does not really make sense to pose the question of whether such a program is free software or not.

In general we do not believe it is wrong to develop a program and not release it. There are occasions when a program is so useful that withholding it from release is treating humanity badly. However, most programs are not that marvelous, and withholding them is not particularly harmful. Thus, there is no conflict between the development of private or custom software and the principles of the free software movement.

Nearly all employment for programmers is in development of custom software; therefore most programming jobs are, or could be, done in a way compatible with the free software movement.

Commercial Software

Commercial software is software being developed by a business which aims to make money from the use of the software. "Commercial" and "proprietary" are not the same thing! Most commercial software is proprietary, but there is commercial free software, and there is non-commercial non-free software.
For example, GNU Ada is always distributed under the terms of the GNU GPL, and every copy is free software; but its developers sell support contracts. When their salesmen speak to prospective customers, sometimes the customers say, "We would feel safer with a commercial compiler." The salesmen reply, "GNU Ada *is* a commercial compiler; it happens to be free software."

For the GNU Project, the emphasis is in the other order: the important thing is that GNU Ada is free software; whether it is commercial is not a crucial question. However, the additional development of GNU Ada that results from its being commercial is definitely beneficial.

Please help spread the awareness that commercial free software is possible. You can do this by making an effort not to say "commercial" when you mean "proprietary."

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Translations of this page

العربية [ar] Català [ca] Česky [cs] Deutsch [de] Greek [el] English [en] Español [es] Français [fr] Bahasa Indonesia [id] Italiano [it] 日本語 [ja] Nederlands [nl] Polski [pl] português do Brasil [pt-br] Română [ro] Русский [ru] Slovensko [sl] Српски [sr] தமிழ் [ta] Türkçe [tr]