how does free Software work?

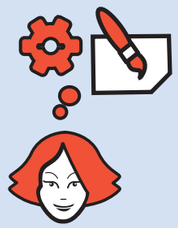
Free Software is a computer program which methods and design are available and can be modified by anyone. It gives four fundamental freedoms to users:

- **the right to use it without any restriction,**
- **the right to study its functionning by providing its recipe (its source code),**
- **the right to distribute it to its friends or any other person,**
- **the right to modify it and adapt it to ones own needs.**

The design process

1 The beginning of Free Software

A programmer conceives a draft of the software either partially functional or with a limited number of functions. Even unfinished, it is published on the Internet with its source code in order to get as many inputs as possible. This first release is the opportunity for other programmers to participate and to accelerate the development of that software.



2 The first contributions

The source code's availability allows other programmers to study the design and how the software works. They can suggest improvements, add new functions or take over part of the programming. After multiple technical tests made by programmers to check the proper working of the software, it is submitted to users.

3 The first tests regarding functioning

The users download and install the software. They test the new functions and can, if they wish, participate in the pinpointing of bugs by reporting the issues they encoutered. Reporting these disfunctions allows programmers to improve the software. They can also suggest adding new functionalities to broaden the software's scope of use.

4 Modifications to be made

The programmers correct the bugs, plug the security holes, add progressively new functionalities following requests or according to a roadmap they established. The directions regarding the software's future are determined in coordination with the different programmers of the project and the most involved users.

5 Widespread use

The software is used by a larger number of users, and those who wish can still report encountered problems. Some offer translations in various languages, others can choose to write the user manual. They ensure its distribution by recommending it to future users.

6 Rapid evolution of functionalities

After adding functions, integrating new languages and adding a user manual, the software is released again. The improvement cycle continues amongst users, programmers, translaters and any other person wishing to join the project to help it evolve. The whole of these contributors now form a community around that software.

To learn more about Free Software, you can go to: http://www.april.org.
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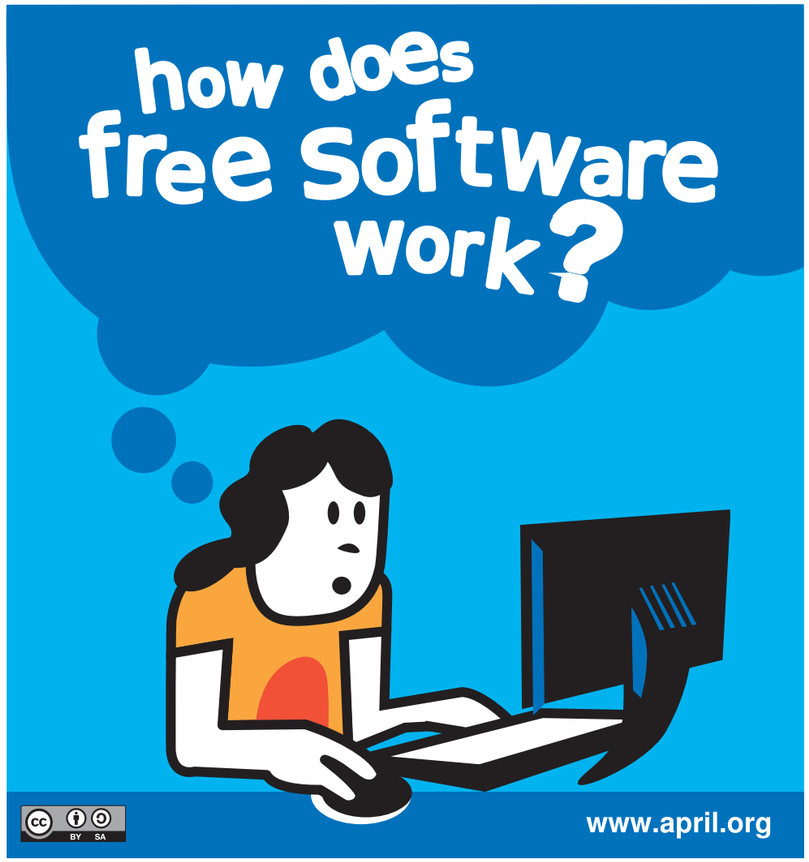


More about it:

What is "source code"?
Software is written in programming languages that are understandable for human beings as text files that constitute is "recipe": it is the source code. This source code must be translated into machine code (a series of digits) in order for it to be understood by a computer and to function. The reverse process, finding the understandable code from the machine code, is impossible. Most pieces of software on the market are available in that form, which excludes the possibility of knowing how they were programmed, how they work and if they spy onto you.

Why would programmers work for free?
Even it's often the case, Free Software isn't always free of charge. The sale of courses, support, insurances or any other service is commonplace. There are various economic models allowing to earn money from Free Software. The majority of these programmers are employed by companies to contribute and to help in the evolution of the software in which these companies are interested in. Free Software allows to mutualize everybody's efforts and to benefit from the improvements of all the contributors.

Where to find Free Software?
You can find a French directory of Free Software at:
http://www.framasoft.net

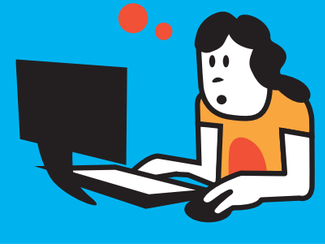
April edits a catalog of Free Software:
http://www.april.org/Catalogue_Libre

how does free Software work?

I create a software!

the programmer

I use it and I wish to participate!



the user

Creation of the first software blocks by a programmer.

1 **Distribution of a draft with its recipe (the source code)...**

2 **First functional version release...**

The availability of the software's source allows anybody to study its design.

Contribution from other programmers to the software.

Free Software is usable by anybody without any restriction.

Users try it. They can suggest improvements.

3 **Improvement suggestions, bugs identification...**

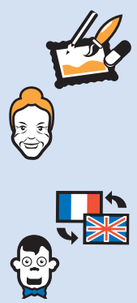
4 **Improved software, with new functionalities...**

Access to the source code allows others to improve the software.

New functions, other programme fixes.

You have the right to copy it for other users.

Use of the software. Users can contribute to translations and documentation.



5 **Translations, writing of the documentation, requests for new functions...**

6 **The improvement cycle goes on...**

Improvements, inclusion of translations, documentation inclusion by programmers

Free Software respects the users' freedom, it allows them to use it, study it, distribute it and improve it...