

# Free & Open-source Software

The software that you use everyday is generally proprietary. This means that you can never see the original code that went into making the programs you run. Most people may not see this as an issue but a proprietary program could be doing anything in the background with your data and hardware. If you, or others, could audit and modify this code then you could ensure that you are happy with what you are running and also enables you to modify the software as you see fit. There are two main organisations who aim to combat this issue: Free Software Foundation; Open Source Initiative.



As defined in their open source definition: [<https://opensource.org/osd>], the OSI believes that there are 10 defining factors that make a piece of software open source. The primary factor is that the source code for a piece of software must be available freely and without obfuscation. Additionally, software must be freely distributed, allow for modifications via the source (by patches or redistribution), and not discriminate against any persons, groups, fields, software platform or hardware. Additionally, the open source license must apply to any distributed copies, not be attached to any software package and not restrict other software. The OSI support several licenses such as the MIT, Apache 2.0 and GPL.

The FSF places less importance on viewing the source of programs but instead about the freedoms in using software. This means having all control about the software that we use and being free from surveillance and artificial restrictions. The definition given at: <https://www.gnu.org/philosophy/free-sw.html> is that, "users [should] have the freedom to run, copy, distribute, study, change and improve software." They have four essential freedoms based around this statement at the above website. You can view these at the site above. To further their freedoms the GPL was made. This gives developers a general license, which integrate the freedoms which the FSF promote.



The Linux kernel and GNU core utilities are both free and open-source under the GPL. Linux is a very popular alternative to Windows and MacOS. It can be installed on almost any computer and makes using free software easy for anyone.



Audacity is an audio recording and editing utility. Many agree that it is the best tool for light audio work and it is both free and open source under the GPL. In addition, it is simple and easy to pick up with many tutorials online.

