

FOSS

Free and Open Source Software



What is the Free and Open Source Software

It is mentioned that GIS, QGIS, GeoNetwork, and others are free or open source software, but what is exactly this kind of software?



What is the Free and Open Source Software

- First it should be mentioned that in the strictly technical aspects, free software is just like any other software.
- Like the software with proprietary or commercial license, free software is also the set of programs, computer instructions and rules that make it possible to perform specific tasks within a computer.
- It is also developed using any of the many existing programming languages and compiled to generate an executable binary that the user can use.

Differences with Proprietary or Commercial Software

The real difference has to do with the type of licensing, because typically the license of proprietary or commercial software limits the user rights on the software while the license of free software or open source protects the rights of the user who uses it. In particular protects the user's right to use the software for any purpose, to study the program and modify it, to suit their own needs, to distribute copies of the software to any other user, and to improve the software, such as bug fixes and make public these improvements .



Differences with Proprietary or Commercial Software

To better understand the above, in the following tables are listed, without pretending to be an exhaustive list, some typical differences between a proprietary or commercial license and a free software or open source license.



Differences with Proprietary or Commercial Software

Proprietary or Commercial Software License	Free and Open Source Software License
<p>Some licenses allow the use of the software on only one computer, if you want to use on another computer you must uninstall or disable use in the original computer.</p>	<p>There is no limitation on the number of computers that can be installed and used simultaneously.</p>



Differences with Proprietary or Commercial Software

Proprietary or Commercial Software License	Free and Open Source Software License
<p>Some licenses only allow the use on a server with the number of processors / cores stipulated when the license was acquired, if you want to use on a server with greater processing capacity must purchase a new licensing.</p>	<p>There are no limitations on the number of processing cores, memory or any other feature of the server on which the software runs.</p>



Differences with Proprietary or Commercial Software

Proprietary or Commercial Software License	Free and Open Source Software License
Some licenses allow the use of software only for certain specific uses, such as for teaching but not for professional work.	There are no limitations on the use given to the software.



Differences with Proprietary or Commercial Software

Proprietary or Commercial Software License	Free and Open Source Software License
<p>Some server software licenses allow maximum user connected, if required be entitled to have more connected users must purchase a new licensing.</p>	<p>There are no limitations, beyond technical ones, for the number of simultaneous users.</p>



Differences with Proprietary or Commercial Software

Proprietary or Commercial Software License	Free and Open Source Software License
<p>Typically this type of licensing does not allow copies of software and distribute them either in the workplace or to other institutions.</p>	<p>There are no limitations as to make copies of the software and distribute.</p>



Differences with Proprietary or Commercial Software

Proprietary or Commercial Software License	Free and Open Source Software License
Typically you do not have access to the source code with this type of software licensing so you can not improve or correct any error.	The free or open source software license assures the user the right to have access to the source, modify and distribute code.



Why Free Software?

It is worth mentioning some important aspects when choosing a solution based on free or open source software.

There are a number of myths caused by ignorance, which are summarized in the false belief that free software should only be used if you do not have money to purchase a proprietary software license.



Why Free Software?

Although in some cases licensing savings is significant, many times this is not the most important criterion when a solution is selected in free software.

In many cases the free software is selected by evaluating criteria such as quality, flexibility, scalability, functionality, etc.



Why Free Software?

As an example we can mention that in the world of supercomputing free software is the software of choice. In fact, in the list of the 500 most powerful supercomputers in the world (<http://www.top500.org>), approximately 80% of them use the free operating system GNU / Linux, the rest uses some implementations of the Unix operating system.



Why Free Software?

In particular we can mention the two supercomputers currently on top of the list: the Chinese super-computer Tianhe-2, which currently holds the record of 33.86 petaflops thanks to its 3,120,000 cores, followed by the US super-computer Titan which achieves 17.59 petaflops thanks to the efficient use of 560.640 cores, their operating systems are Kylin Linux and Cray Linux Environment respectively. In fact, the top ten super-computers on the list uses a GNU/Linux distribution as the operating system.



Why Free Software?

Free software is also present in the heart of the Internet, the highest percentage of web servers in the world use Apache HTTP Server (free software) to serve its pages to users:

<http://news.netcraft.com/archives/2015/11/16/november-2015-web-server-survey.html>



To know more...

Free Software Foundation

<http://www.fsf.org/>

Open Source Initiative

<https://opensource.org/>

Free Software, Free Society

<https://www.gnu.org/philosophy/fsfs/rms-essays.pdf>

The Cathedral and the Bazaar

<http://www.catb.org/esr/writings/cathedral-bazaar/>

OSGeo

<http://www.osgeo.org/>



Association of Caribbean States
Asociación de Estados del Caribe
Association des Etats de la Caraïbe



Thank you!

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