

Introduktion till FOSS

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Free and Open Source Software – FOSS

eller

Free, Libre and Open Source Software – **FLOSS**

“Fri programvara” handlar om frihet, inte pris. För att förstå begreppet, tänk “fri” som i “yttrandefrihet”, inte som i “kostnadsfri/gratis”.

De fyra friheterna

- [frihet 0] Friheten att köra programmet som du önskar, för ett godtyckligt syfte.
- [frihet 1] Friheten att studera hur programmet fungerar och att anpassa det för sina behov. Tillgång till källkoden är ett villkor för detta.
- [frihet 2] Friheten att vidare distribuera kopior så att användaren kan hjälpa sin nästa.
- [frihet 3] Friheten att förbättra programmet och att ge sina förbättringar till allmänheten så att hela samhället drar nytta. Tillgång till källkoden är ett villkor för detta.

Märk : Inget säger att man inte får tjäna pengar!

Starten: MIT Media Lab



Historia

- [-70th] Source code common way of distribution
- [70-80] Binärer började skickas ut
- [1983] IBM - Object code only
- [1983] Richard Stallman(RMS) : The GNU project
- [1984] GNU Operating System
- [1985] Free Software Foundation FSF och the GNU Manifesto
- [1991] The Linux kernel
- [1998] Open Source Initiative (OSI) was formed
- [2013] Ubuntu Marks 'Bug No. 1' As Fixed. **Bug no. 1:** "Microsoft has a majority market share."
- [2017] FOSS användning uppskattat till 94%

The Open Source Definition (by OSI)

- 1 Free Redistribution
- 2 Source Code
- 3 Derived Works
- 4 Integrity of The Author's Source Code
- 5 No Discrimination Against Persons or Groups
- 6 No Discrimination Against Fields of Endeavor
- 7 Distribution of License
- 8 License Must Not Be Specific to a Product
- 9 License Must Not Restrict Other Software
- 10 License Must Be Technology-Neutral

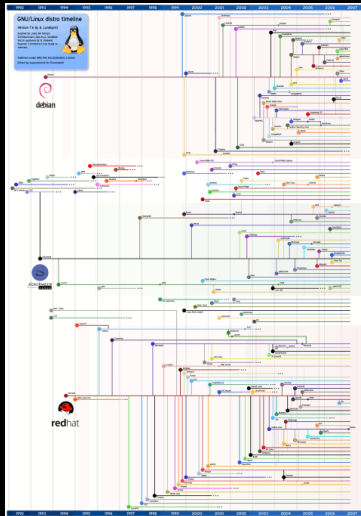
FOSS diskuteras flitigt!

FRI eller ÖPPEN mjukvara?

FOSS är VÄLDIGT vanligt!

- Apache web server
- Content Managment Systems (tex swereas hemsida)
- I princip allt inom Molntjänster
- Nästan all IoT-devices
- Linux (Vanligaste OS-kärnan)
- .NET
- Firefox
- VLC
- MySQL
- MediaWiki (Wikipedia, virtwiki)
- Android

Linux är ett FOSS-projekt och har hållt på ett tag



Vad gör en programvara fritt?

Licensen!

- GNU
 - GPL v2, v3
 - LGPL
- MIT
- BSD
- Apache
- Python
- CC
- Et tutto il resto



Licensen säger hur du får använda programmet

FOSS licenser finns i två typer

- Copyleft
 - typiskt GPL...
- eller
- “Gör vad du vill med texten”
 - typiskt MIT och BSD



Some Rights
Reserved



utdrag ur EULA : WINDOWS OPERATING SYSTEM July 2017

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- 5 use the software as server software, for commercial hosting, make the software available for simultaneous use by multiple users over a network, install the software on a server and allow users to access it remotely, or install the software on a device for use only by remote users;
- 6 reverse engineer, decompile, or disassemble the software, or attempt to do so, except and only to the extent that the foregoing restriction is (a) permitted by applicable law; (b) permitted by licensing terms governing the use of open-source components that may be included with the software; or (c) required to debug changes to any libraries licensed under the GNU Lesser General Public License which are included with and linked to by the software; and
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Utdrag ur GPLv3

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Skillnad GPL och LGPL

GPL

Programmet som byggs med GPL-kod förblir GPL-licensierat

LGPL (Lesser GPL)

Programmet som byggs med LGPL-kod behöver inte vara FOSS. LGPL-koden i sig är dock alltid LGPL.

Samma program kan ha flera licenser

Exempel: **PyQt**

- Normalt **GPLv3**
 - Fritt, öppet, Behöver ej betala något
 - Används för att skapa GPLv3-icensierade program, som *FAME*
- Kan köpa kommersiell licens
 - kostar approx 300 Euro för ett år och en utvecklare
 - Utvecklarlicens ger **LGPL**
 - Kan då skapa slutna program

FOSS som kan vara användbara:

- Octave
- Libre Office
- Python
- GIMP
- Blender
-

Annan viktig FOSS programvara

- gcc
- gfortran
- och väldigt många andra kompilatorer
- GTK, Tk, Qt, ...



Image by Jurgen Appelo -
www.noop.nl

Vi använder mycket FOSS

Denna presentation t.ex. är skapad med FOSS

- emacs
- markdown
- pandoc
- latex/beamer

Swerea KIMAB har utvecklat FOSS

<https://github.com/swerea>

- FAME (GPLv3)
 - använder:
 - CalculiX (GPLv2)
 - PyQt (GPLv3)
 - python3 (python lic)
 - stl-to-voxel (MIT lic)
- SPHgen (GPLv3)
 - använder:
 - python3 (python lic)
 - stl-to-voxel (MIT lic)

Arbete pågår att stärka öppenheten

T.ex:

Red Hat Press release March 19, 2018:

CA Technologies, Cisco, HPE, Microsoft, SAP, and SUSE commit to providing a cure period for correcting license compliance issues in GPLv2 software

Finns konferenser

- Varje större projekt har “sin” konferens
- Universella konferenser:
 - FOSDEM
 - Libre Planet
 - ...

Föredalar med FOSS

- Användning utan förbehåll
 - Installera, kör, använd alla CPUer du har
- Ofta användarutvecklat
 - Snabbt, direkt, enkelt
- Får använda som bas för egna program
 - Snabbare utveckling
- Får skriva om efter eget huvud.
 - Kustomisering
- Ingen försöker aktivt hindra dig

Varför är FOSS SÅ populärt som det är?

- Frihet
- Kontroll
- Kostnad
- “Community”

Varför är FOSS SÅ populärt som det är?

Jim Whitehurst, CEO Red Hat:

"About five or six years ago, something changed. Large corporations, including Google and Facebook, started open sourcing their own projects because they didn't look at some of the infrastructure technologies they opened up as competitive advantages. Instead, having them out in the open allowed them to profit from the ecosystems that formed around that."

Vad är FOSS community?

- **Personerna som hjälper utvecklingen**

- Programmerare
- Dokumentatörer

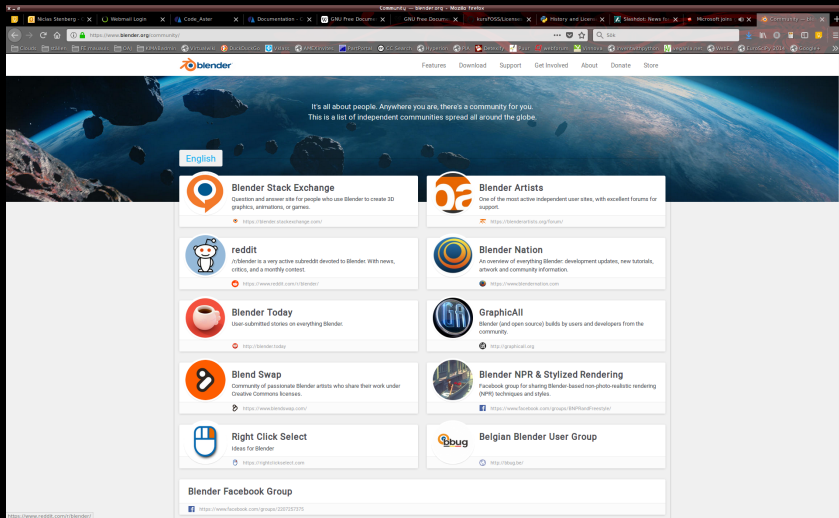
De förbättrar hela tiden

- **Användare**

- Bugg-rapportörer
- Feedback

De svarar på användarfrågor

Som exempel: Blender communities



Mer Blender : Utveckling

The screenshot shows the Blender.org website's 'Get Involved' page. The browser's address bar displays 'https://www.blender.org/get-involved'. The page has a top navigation bar with links: Features, Download, Support, Get Involved (active), About, Donate, and Store. Below this is a large banner image with the text 'Get Involved' and sub-links: Development, Documentation, and Blender Conference. The main content area is divided into four columns:

- Development:** States Blender is an open source project licensed under the GNU GPL, written in C, C++ and Python. It mentions that volunteers and professionals alike contribute to the official Blender release, including developers, scripters, technical documenters, translators, designers, and users testing the software and giving feedback. It encourages reading on to find out how to get involved, report bugs, see what's happening, and discover resources and documentation. A 'Read more >' link is provided.
- Documentation:** Mentions a large number of people helping with the Blender Manual to organize and write our complete and freely available end-user documentation. It invites volunteers interested in documentation translations to contact the team as well. A 'Read more >' link is provided.
- Education:** States the Blender Foundation considers education and training projects crucial for a successful Open Source project. It mentions currently coordinating knowledge in this area, sharing experiences, and evaluating proposals for official (certified) training programs on the bf-education mailing list. Everyone interested in the topic is free to join. It encourages finding more information about the Blender Foundation Certified Trainer program.
- Donations and Sponsors:** States the Blender Foundation is an independent public-benefit corporation, to facilitate the open source Blender projects. Individuals or companies interested in supporting this financially can contact the foundation or visit the donations page. It also mentions running an e-shop where documentation and Blender goodies are sold, with profits used to cover Foundation expenses and support Blender Institute projects.

Below the main content is a footer with links organized into columns: Blender (Download, Features, Source, License), Organization (Foundation, Institute, Conference, Blender Network), Get Involved (Donations, Community, Development, Documenters, Education), Support (Manual, Tutorials, Python API), blender.org (News, Jobs, Contact, Logo & Trademark), and Follow Blender (YouTube, Facebook, Twitter icons).

Tankarna bakom FOSS

- Jag behöver denna funktion
- kanske andra också behöver den?
- Med FOSS-licens kan jag dela med mig och få ta del av andras tillägg
- Vi hjälper varandra

Använd FOSS!

Använd **INTE** *Freeware!* - Ofta skadliga program!

Tack för att ni lyssnade



Ett tips: lägg till *gpl* när ni söker program för att hitta FOSS