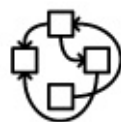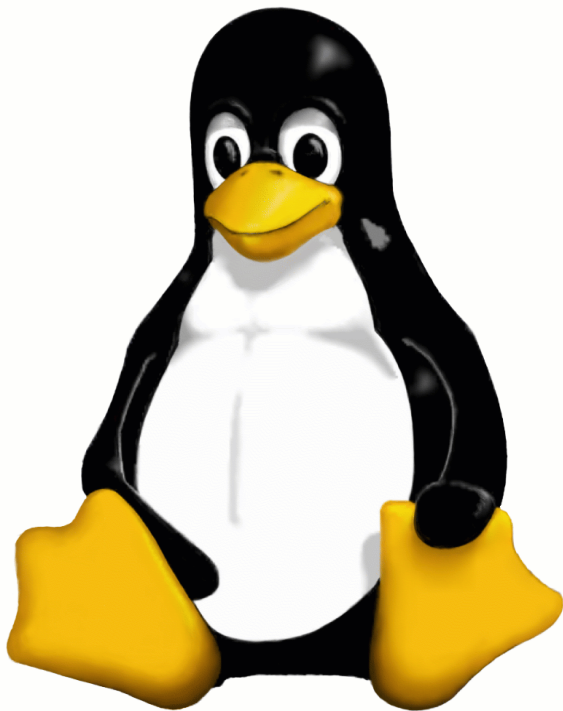# Úvod do GNU

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1.11.2003

Niekoľko vulgarizmov úvodom

- UNIX
- POSIX
- SYSTEM V, SVR
- BSD
- GNU

Na počiatku bolo GNU

Richard Stallman, 1984

- GNU = **G**NU is **N**ot Unix
- GPL licencia
- založenie Free Software Foundation

Free software

The term free software is sometimes misunderstood it has nothing to do with price. It is about freedom. Here, therefore, is the definition of free software: a program is free software, for you, a particular user, if:

- You have the freedom to run the program, for any purpose.

- You have the freedom to modify the program to suit your needs. (To make this freedom effective in practice, you must have access to the source code, since making changes in a program without having the source code is exceedingly difficult.)

- You have the freedom to redistribute copies, either gratis or for a fee.

- You have the freedom to distribute modified versions of the program, so that the community can benefit from your improvements.

Copyleft and the GNU GPL

The goal of GNU was to give users freedom, not just to be popular. So we needed to use distribution terms that would prevent GNU software from being turned into proprietary software. The method we use is called "copyleft".

Copyleft uses copyright law, but flips it over to serve the opposite of its usual purpose: instead of a means of privatizing software, it becomes a means of keeping software free. The central idea of copyleft is that we give everyone

permission to run the program, copy the program, modify the program, and distribute modified versions but not permission to add restrictions of their own. Thus, the crucial freedoms that define free software are guaranteed to everyone who has a copy; they become inalienable rights.

Prvý GNU software

- Multiplatformný prekladač – gcc
- GNU emacs

Operačný systém

- Jadro

- Systémové programy

- Knižnice

- Aplikačné programy

GNU dnes

GNU je kompletný operačný systém.

- fileutils, binutils, modutils
- GNU C Library
- množstvo systémových programov
- tisíce aplikácií s licenciou GNU GPL
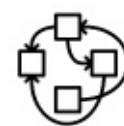- viac jadier (Linux, HURD, NetBSD)

HURD

The GNU Hurd is the GNU project s replacement for the Unix kernel. The Hurd is a collection of servers that run on the Mach microkernel to implement file systems, network protocols, file access control, and other features that are implemented by the Unix kernel or similar kernels (such as Linux).

silne výskumný projekt

v niektorých smeroch nejasná koncepcia

nulová šanca masového využitia

HURD

Linux

From: Linus Benedict Torvalds (torvalds@klaava.Helsinki.FI)
Subject: Free minix-like kernel sources for 386-AT
Newsgroups: comp.os.minix
Date: 1991-10-05 08:53:28 PST

...

I'm also interested in hearing from anybody who has written
any of the utilities/library functions for minix. If your
efforts are freely distributable (under copyright or even
public domain), I'd like to hear from you, so I can add them
to the system. I'm using Earl Chews estdio right now (thanks
for a nice and working system Earl), and similar works will be
very wellcome. Your (C)'s will of course be left intact. Drop
me a line if you are willing to let me use your code.

EOF