

LINUX

FOR BEGINNERS

Course plan

- Introduction - what is Linux, short history
- Basic information about Linux systems
- Pros and cons of Linux systems
- Installation of Linux
- Typical Linux operations
- Available software
- Linux system safety
- System management
- Linux console



Introduction

What is Linux?

- Linux is a free and open kernel of an operating system, available at <http://kernel.org>
- It originates from UNIX systems, from which it gets its main idea and principles
- Colloquially, we use the Linux name with regard to operating systems based on this kernel
- Works on the kernel have been ongoing since 1991, when Linus Torvalds published its first version
- Linus has supervised the works on the kernel to this day
- Initially, Linux worked only on computers with the CPU Intel 386 and was entirely non-transferable.
- Due to the involvement of a wide community, currently the Linux kernel can be run on practically any device based on any hardware architecture, including computers, consoles, mobile phones, TVs etc.



How come it's so popular?

- Linux was created at a time when the hacker movement was very strong
- Linux is an Open Source software, which means it's distributed together with the source code which can be freely modified according to one's needs and the changes can be further shared—the only condition here being the parallel distribution of the modified code
- Linux was released on GNU (General Public License), the current code version is available on the basis of the version 2.1 of this license.
- Linux is neither a property of any company nor person – it belongs to the entire community, the thousands of people who have been developing it since 1991. Linus himself also isn't the owner of Linux (but he owns the trademark).



How come it's so popular? (continued)

- Linux was created by hackers for hackers, but nowadays it's created by users for users, its modular design enables it to be adjusted to individual needs
- Thanks to this, and the fact that it's provided with a complete set of tools, it's become a mature and convenient operating system, the popularity of which increases also in home applications
- An average user, without his or her knowledge, deals with it practically on a daily basis (routers, phones – Android is a Linux, TVs etc.)
- Its universality and low technical requirements enable us to breathe a "new life" into a seemingly obsolete equipment, as well as to functionally enhance devices available on the market



What is it to know?

- We have to keep in mind that Linux isn't a Windows, it's a different system which often behaves differently and is designed differently
- We may often have an impression that it's too different – it's partially true, because the system design rests on different principles
- Linux and the tools available in it are developed with the creator in mind, not the rest of the community
- User friendly doesn't mean what we think it means
 - what we already know is friendly
 - friendly doesn't mean effective

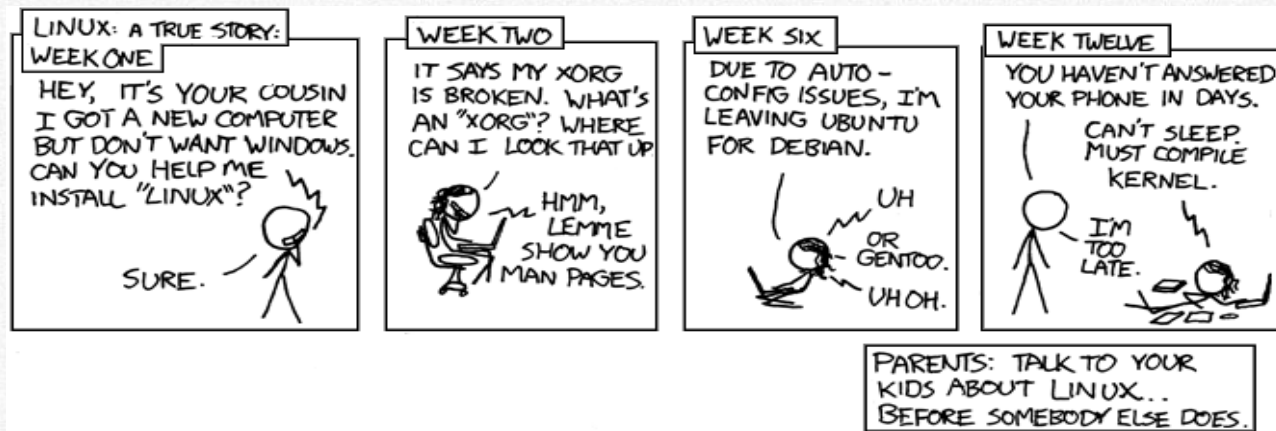


What is it to know? (continued)

- System users create some kind of a community – no one is obliged to do anything, but also no one requires anything from anyone; still, the users often take matters in their own hands
- Linux is based on a certain philosophy – open source philosophy, where freedom is understood by the freedom of software, and not the user
- Most often the software freedom is accompanied by the freedom of the user – there is always at least one alternative solution
- However, sometimes this freedom causes problems, mainly related to handling restricted formats, such as mp3, wmv, dvd itp. The system may support these formats, but due to philosophical reasons their support isn't available on an "out-of-the-box" basis



The aim of the course



The image comes from <http://xkcd.com>

