

Practical Introduction to the Linux/Unix World («LINUX»)

This course provides beginners with the necessary basics to be able to execute simple tasks on the command line as a user of a Unix, Linux, OS-X or BSD system. In addition, the course forms the basis for further Unix/Linux courses.

Duration: 3 days

Price: 2'100.–

Course documents: Digicomp course material

Content

1. What is Linux/Unix
 - o What is the purpose of an operating system?
 - o The user interface
 - o Why Unix?
 - o Unix history
 - o Unix derivatives
 - o Does Unix have a future?
2. First Steps
 - o Login and Logout
 - o Login via GUI
 - o The Unix GUI
 - o Manage files and directories with the mouse
 - o Edit files without «vi»
 - o Getting started with the shell and commands
 - o The X-Terminal (xterm)
3. The shell(s)
 - o What is an order?
 - o How to use the shell
 - o Bash
 - o Corn shell
 - o Which shell?
 - o Manage processes with the shell
 - o Arguments and the File Name Expansion
 - o You decide: Options
 - o Aliases
 - o Echo and variables
 - o Predefined variables
4. Aids
 - o Search where and what?
 - o The Unix Online Manual
 - o Help of commands
 - o Local Documentation
 - o Infinite Source – Internet
 - o Books
5. Editors
 - o Unix standard editors
 - o «vi»
 - o The alternative «vim»
 - o Further alternatives – Emacs & Co.
6. Commands
 - o What is a command?

- o Paths
- o A few useful commands
- o Redirection of input and output
- o Connecting commands
- o Filter Commands

7. Files and directories

- o File types
- o Unix directory tree
- o Manage files and directories

8. Processes

- o What is a process?
- o Calling a program
- o Stopping or canceling a process
- o Where is a process?
- o Output the process table with ps
- o Characteristics of processes
- o Process statuses
- o PID and PPID
- o User and Group
- o Priority
- o Process management
- o Cues
- o Send signals to processes
- o The (optional) command top

9. Security

- o Unix defense lines
- o Users, Groups and Others
- o The sensible password
- o Access rights
- o Setting access rights with «chmod»
- o Setting the default permissions

10. Print and e-mail

1. Print
2. The lp-spooling system
3. CUPS
4. E-mail

11. Networking

- o Basics
- o OpenSSH
- o Synchronize files and directories with «rsync»
- o A text-based browser – lynx
- o Transfer URLs – curl
- o Downloads via «wget»

12. X11 – the Unix GUI

- o History
- o Concept of X11
- o Using the GUI
- o Start remote applications

Key Learnings

- Origin of Unix and characteristics of individual Unix derivatives (Solaris, Linux, OS X, BSD)
- Login and logout on Unix/Linux systems
- Learning the basics to work with the shell
- Use help to get details about commands, file formats, or the shell
- Editing files using the usual Unix/Linux editors
- The most used commands under Linux/Unix
- Linking commands to the pipeline
- Standard Unix Directory Tree
- Using commands to manage files and directories
- Managing and locating processes
- Concepts of Local Safety
- Understanding and setting access rights for files and directories
- Printing and sending e-mails from the command line
- Viewing the Network Configuration
- Network troubleshooting
- Knowledge of the concepts of the graphical user interface X1

Methodology & didactics

Theory lessons as well as individual and group work

Target audience

This course is aimed at prospective Linux/Unix users, experienced specialists of other operating systems as well as users who use the Linux/Unix operating system and want to familiarize themselves efficiently with the practical handling of Linux/Unix. The course also addresses the following job roles: IT managers, IT architects, project managers, system engineers and architects, system administrators, first and second level support as well as software developers.

Further courses

- [Linux/Unix – Buildup to Administrator/PowerUser \(«LINUX2»\)](#)
- [LPI – Linux Administrator I \(«LP1»\)](#)
- [Linux/Unix shell for power users and programmers \(«USH»\)](#)

Any questions?

We are happy to advise you on +41 44 447 21 21 or info@digicomp.ch. You can find detailed information about dates on www.digicomp.ch/courses-it-provider/unix-linux/course-practical-introduction-to-the-linuxunix-world