Linux – introduction

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Purpose

- Get a grip on the very basics: an introduction to the (basic) Linux commands as normally used for computational research.
- Focus on using the command line
- Short hands-on examples
- Based on the slides of Mag Selwa – ICTS @ KULeuven
  - https://hpcleuven.github.io/Linux-intro/

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Outline

- Introduction
- Command line basics – getting help
- The shell revisited: some features
- Navigating the file system
- File manipulation
- Text editing
- Various commands
- Archiving
- Groups, users, security
- Process control

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Information

- Most of the presentation is based on the information found in:
  http://dontfearthecommandline.blogspot.com/
  Nicholas Marsh
  Introduction to the Command Line (Second Edition)
- http://linuxcommand.org/tlcl.php
  William Shotts
  The Linux Command Line
- http://www.oreilly.com/programming/free/ten-steps-to-linux-survival.csp?download=yes&order=1274753
  James Lehmer
  Ten Steps to Linux Survival
- https://bootlin.com/doc/legacy/command-line/unix_linux_introduction.pdf
  Michael Opdenacker & Thomas Petazzoni
  The Unix and GNU/Linux command line

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Websites?

- https://www.howtogeek.com/t/linux/
  - Includes help, tutorials, tips and how-to guides for Linux.
- http://www.tldp.org
  - The Linux Documentation Project
- https://lwn.net
  - Linux Weekly News:Covering the Linux and free software communities since 1998.
- https://itsfoss.com/
- https://www.noobslab.com/
- https://www.tecmint.com/

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Try it?

- WSL: windows subsystem for linux
  - MobaXterm can be helpful
- Install virtual machine software
  - Vmware player
  - https://www.vmware.com/products/workstation-player.html
  - Virtualbox
  - https://www.virtualbox.org/
- Install a linux distribution
  - Ubuntu https://ubuntu.com/
  - CentOS https://www.centos.org/
  - Opensuse https://www.opensuse.org/
  - …

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WSL

- Check for a detailed description:
- https://people.cs.clemson.edu/~hollowe/SoC%20Info/WSL.html
- https://www.cs.odu.edu/~zeil/FAQs/Public/win10Bash/ (also useful for C programming)
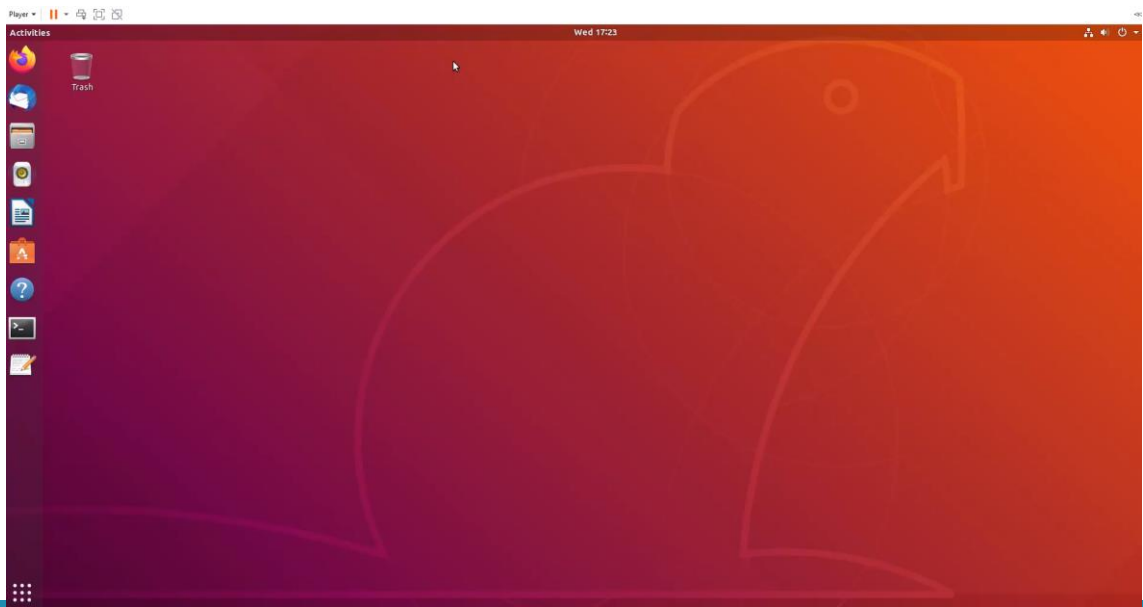
Ubuntu on Windows

- https://ubuntu.tutorials24x7.com/blog/how-to-install-ubuntu-on-windows-using-vmware-workstation-player

Note

- A small hands-on document is accompanying the slides.
- A recorded set of the different chapters contains small demo's on an Ubuntu system running as a guest in a Vmware player environment.

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