

Some Linux Essentials (Revision)

Andre M. Maier, DHBW Ravensburg
dhbw@andre-maier.com

CLI Basics

- `command [OPTION(S)] [PARAMETER(S)]`
- Manual pages
`man [SECTION] COMMAND`
`man -f COMMAND`
`man -k KEYWORD`
- Shell built-in functions
- Absolute path vs. relative path
- Meaning of `/`, `..`, `...`, and `~`
- Linux/Unix Directory Hierarchy

User Administration and Security Basics

- Local user database
 - */etc/passwd, /etc/shadow*
- root account
- sudo concept
 - Why is it better?
 - No account should ever be shared among multiple users! This also applies to administrators!
 - Permissions should be granted as sparingly as possible (different roles among multiple administrators).
 - Any administrative action should be traceable down to the person who performed it. → */var/log/auth.log*

Upgrading and Package Management

- Before installing additional software, always make sure your system is up to date.
 - `apt update && apt upgrade --yes`
- Whenever possible, use your distribution's default software repository and default package management system to install or remove software!
 - `apt install ...`
 - `apt purge ...`

Dos and Don'ts

- Keep your system as clean and as basic as possible. Every fancy gadget comes with potential bugs!
- Do not use distributions just because they are said to be “nerdy” or “cool”.
- Don't ask people or Google, just try.
- Get (and examine) the source code
 - apt source ...

If you think you're a real Linux pro ...

- Get LPI certified
 - <https://www.lpi.org/>
- Before registering for the test, be aware that it will make you buy your most expensive pencil ever if you aren't a real pro!