# C2110 *UNIX and programming*

## Lesson 2 / Module 2

**PS / 2020 Distance form of teaching: Rev2**

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# Commands

➢ **Manual pages**

➢ **Basic detection commands**

# Command Help

**Manuals sites (or what to do, when I get lost):**

**man**              lists manual page of given command

```
$ man [section_number] stoker
```

name of command, function, topic, chapter etc.

*Available sections:*

- *Section 1* user commands
- *Section 2* system calls
- *Section 3* library functions
- *Section 4* special files
- *Section 5* file formats

- *Section 6* games
- *Section 7* conventions and miscellany
- *Section 8* administration and privileged commands
- *Section L* math library functions
- *Section N* tcl functions

Number of the section must be entered for topics with the same name included in different sections.

$ man 1 printf          man page of the printf command

$ man 3 printf          C page printf() man page

# Help, Searching for Commands

*Navigation in the help text:*

- scroll through the text (up and down arrow keys or **j** and **k**)
- scroll through the text (**PgDn** and **PgUp** or keys **f** and **b**)
- search ( **/search_text** , key **n** for further search)
- close help (key **q**)

*Online manual pages in HTML format:*
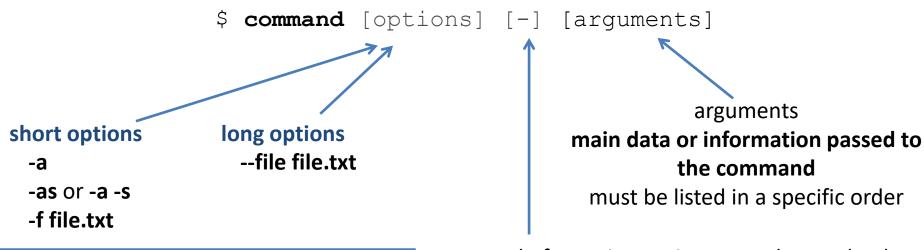
## http://linux.die.net/man/

**Useful commands:**

| | |
|---|---|
| **whatis** | lists short command description (from the manual page) |
| **apropos** | searches for commands that contain the specified keyword in the manual |
| **info** | displays of info pages of a command (similar to manual pages) |

# Description/Entering Commands

$ **command** [options] [-] [arguments]

**short options**
  -a
  -as or -a -s
  -f file.txt

**long options**
  --file file.txt

arguments
**main data or information passed to the command**
must be listed in a specific order

extend/change the behavior of the command can usually be listed in any order

end of entering options must be used only in very special cases, it is not used commonly

[] means **optional** options or arguments
<> means **mandatory** options or arguments, alternatively can be given without parentheses

# Detection Commands

**man** manual pages of commands

**whatis** prints a short description of the command (from the manual page)

**by the way** searches for commands that contain the keyword specified in the label in the manual

**info** display info command pages (similar to manual pages)

**whoami** lists the name of the logged in user

**hostname** lists the name of the machine you are logged in to

**id** lists the identification data of the logged in user and his grouping

**w** lists who is logged in to the machine and what it does

**who** lists who is logged in to the machine

**ps** lists running processes

**top** monitors running processes

**loginctl** manages environment-managed sessions systemd (statement, termination, etc.)

**last** lists the most recently logged in users

# Exercise 1

1. Log in to the wolf02.ncbr.muni.cz node

2. Find the man pages in section 1 that contain the keyword **directory** or **directories**. Which command is used to create directories?

3. What is the full name of your computer (command **hostname** and selection according to the manual pages).

4. Enter your login name with the command **whoami**.

5. What is your identification number (uid)?

6. Find out who is logged on to the wolf02 workstation with the command **w** and **who**.

7. What is the difference between commands **w** and **who** according to manual pages or command **whatis**?

8. List the session using the command **loginctl** and **last**. What is the difference between them?

9. Get an overview of running processes with the command **top** (the command is terminated by pressing the q key).