Handout

Series S01: Unix Tutorial

1. Reading

Get the book [KR88] in English, French or German. Browse it, and study the C codes in chap. 1.1 – 1.5. Also have a look at the C codes in chap. 1.6 – 1.10.

2. Registrations (mandatory!)

a) Subscribe to the Course myUnifr: *IN.2020 System-oriented Programming*
https://my.unifr.ch/

b) Subscribe to the Moodle module: *IN.2020 System-oriented Programming [SP 18]*
https://moodle2.unifr.ch/course/view.php?id=17315

Enrollment Key: `c`

3. First Unix Contact

Do the "Unix Tutorial" TU01, which is available on Moodle in the Tutorials Section.

Remark 1: For Windows users we recommend to install Linux Ubuntu 16.04 LTS (64 bit), virtualized with VirtualBox (https://www.virtualbox.org/). On macOS you best install a terminal like iTerm2 (https://www.iterm2.com/).

Remark 2: A very good knowledge of this tutorial is mandatory for the rest of this course! Play around a little and imagine your own Unix commands.

Next class bring your machine with you, in order to check a well running Unix environment.

4. `wc` Unix Utility

A word count utility, named wc, is available in most Unix shells. Try out several variants of the following command (hint: consult wc's man page) :

```
% wc [options] [file …]
```

Then propose two enhanced `wc` usages, one using `[options]` and one using `[file …]` and give a short explanation.

5. Interactive Bash Tutorial (optional)

To get more comfortable with the Unix Commands you can train yourself with the following interactive tutorials online:

- http://guide.bash.academy/
- http://www.learnshell.org/

6. First steps with C

With the goal to get a bit the feeling of the C language and syntax head over to http://progressor.ti.bfh.ch/language/cpp. This platform allows you to train yourself without installing a compiler on your machine (yet!).

Create an account (with your @unifr.ch email) and solve at least 3 exercises of the C examples.

Hand in.

Upload your answer of exercise 4 on Moodle.

References

[KR88] B. Kernighan, D. Ritchie, The C Programming Language, 2nd Ed., Prentice Hall, 1988.