

Free/libre and Open Source Software

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Preliminaries

- 1 Preliminaries
- 2 Motivation
- 3 Elektra
- 4 Content Overview
- 5 Outlook

BigBlueButton

- used for weekly hybrid meetings
- is FLOSS
- raise the hand immediately on any issues
- use “[on] @GitHubName Real Name” as your name
([on] for on-site alone, [tw] for on-site with neighbor, [vi] for virtual)
- if audio does not work, write in the chat
- on technical problems, try another browser, e.g., recent Firefox or Chromium

Language

Materials are in English:

- Slides are in English
- Reading texts are in English
- Videos are in English

Language during the meetings?

Task

- A English
- B Slightly Prefer English
- C Both are fine
- D Slightly Prefer German
- E German

Video

I am trying to keep meetings short and with breaks.
You are allowed to:

- stretch
- move
- eat
- look somewhere else
- leave your place

Task

If not on-site: please turn video on.

Inverted Classroom

Meetings are most Wednesdays 14:00 c.t. - 16:00 (max.)

- always read/watch the material in advance
- within meetings we will do recapitulations, discussions, etc.
- for today it was enough to read TISS
- the more you participate, the more you learn
- guest meeting on L08 Collaboration

Programming Languages

Elektra supports following programming languages:

- C¹
- C++¹
- Java¹
- Python¹
- Rust
- Go
- Lua
- Ruby
- Kotlin

Question (1)

Which language(s) do you need to know?

Question (2)

Which language can you use?

Task

Break.

Overview Assignments

30 %: homework

30 %: teamwork

40 %: project

0 %: presentation

Question

How to get a positive grade?

- To get a positive grade all parts must be positive.
- Extrapoints can be earned in the lecture.
- After you did H0, you get a grade.

Deadlines

- if you make submissions earlier, you get feedback earlier
- dates are in “assignments.pdf”, “schedule.pdf”, ICS file and calender of TUWEL

There are up to three deadlines for each homework, teamwork or project:

- deadline for submission of the work
- deadline for review (review the submission of others)
- deadline for corrections (based on the feedback of submission)

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Motivation

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FLOSS

Free/libre and Open Source Software allows you to:

- ① Use
- ① Share
- ② Study
- ③ Improve

the software (binary and source) for any purpose without restrictions.

Implications

There are countless implications¹:

- ① technology knowledge doesn't become irrelevant after changing employee
- ② people give you money so that you improve FLOSS for them
- ③ you can do research on FLOSS without any restriction
- ④ you can modify FLOSS as you see fit for yourself or your employee

¹many of which we will discuss in the course

Sustainable FLOSS

- at university, development during theses
- taking FLOSS from job to job (“GitHub as CV”)
- improve FLOSS on customer requests
- selling of hardware
- providing a service

First Assignment

- Have you already used FLOSS?
- Did you already participate in FLOSS?
- Which (other) implications are relevant for you?

Task

Discuss in breakout room and tell your partner's story.

Task

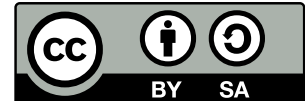
Break.

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Elektra

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Elektra

<https://libelektra.org>



- very active: new release was today
- object of study in FLOSS
- Elektra is mainly developed at TU Wien

Task

Break.

Use Cases of Elektra

- Embedded systems
 - Olimex
 - OpenWRT (distribution)
 - Broadcom (blue-ray devices)
 - Kapsch (cameras)
 - Toshiba (TVs)
- Server
 - ansible-libelektra
 - Allianz (insurance)
 - TU Wien
 - Other Universities
- Desktop
 - KDE, GNOME and XFCE
 - Oyranos
 - Redshift
 - LCDproc

Use Cases

Task

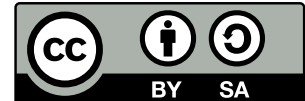
Can you name some other FLOSS for each use case?

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Content Overview

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learning outcomes:

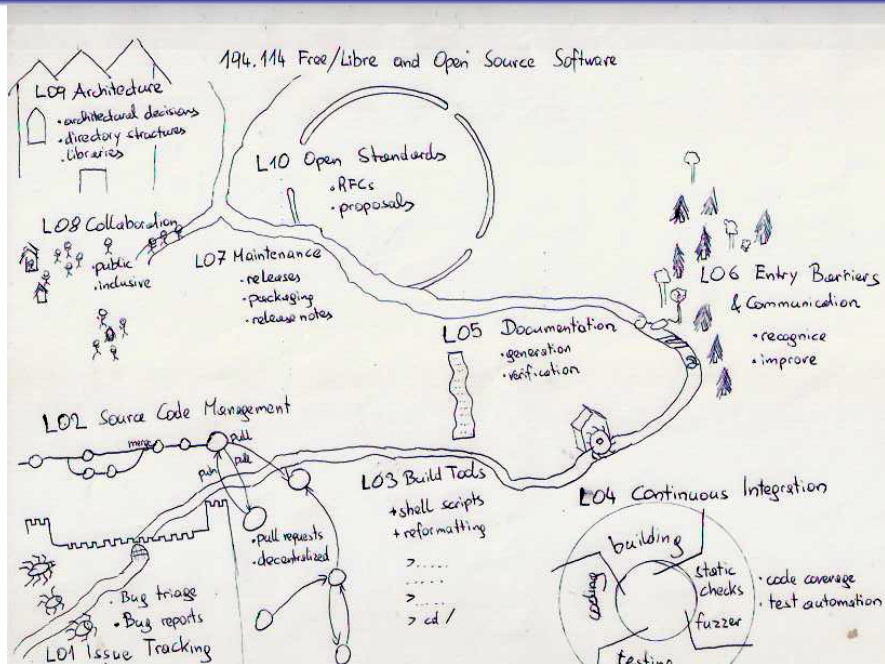
- remember learning outcomes
- remember the topics

learning outcomes:

Question

What are the main learning outcomes as written in TISS?

- participate in FLOSS initiatives,
- found new FLOSS initiatives,
- use FLOSS methods in your business context.



In which FLOSS topics are you interested?
(Can be other topics not mentioned.)

Task (1)

Discuss topics with your partner.

Task (2)

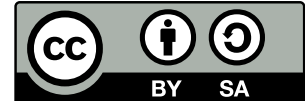
Write down the most interesting topics in the shared notes.

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Outlook

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M01 Issue Tracking

TUWEL already contains materials for M01

Task

- read assignments.pdf for H0
- reading text, videos
- register for the course by doing H0

Task

Any questions?

- [1] Markus Raab and Gergő Barany. Introducing context awareness in unmodified, context-unaware software. In *Proceedings of the 12th International Conference on Evaluation of Novel Approaches to Software Engineering - Volume 1: ENASE*,, pages 218–225. INSTICC, ScitePress, 2017. ISBN 978-989-758-250-9. doi: 10.5220/0006326602180225.