

CSCE604227 System Programming

CSCE604227 Pemrograman Sistem

Week 04: Project FUSE 1

C. BinKadal

Sendirian Berhad

<https://sp.vlsm.org/Slides/sp04.pdf>

Always check for the latest revision!

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SP221¹): System Programming

| Week | Topic |
|---------|--|
| Week 00 | Overview |
| Week 01 | Linux Kernel and Programming Interface |
| Week 02 | Revisit Linux From Scratch |
| Week 03 | FUSE: Filesystem in Userspace |
| Week 04 | Project FUSE 1 |
| Week 05 | Project FUSE 2 |
| Week 06 | Project FUSE 3 |
| Week 07 | Project FUSE 4 |
| Week 08 | Project FUSE 5 |
| Week 09 | Project FUSE 6 |
| Week 10 | Project FUSE Presentation |

¹) This information will be on **EVERY** page two (2) of this course material.

- ❑ **Text Book** — The Linux Programming Interface, 2010, No Starch Press, ISBN 978-1-59327-220-3 — <https://man7.org/tlpi/>.
- ❑ **Resources**
 - ❑ **SCELE** — <https://scele.cs.ui.ac.id/course/view.php?id=3545>.
The enrollment key is **XXX**.
 - ❑ **Download Slides and Demos from GitHub.com**
<https://github.com/os2xx/sysprog/>:
[sp00.pdf \(W00\)](#), [sp01.pdf \(W01\)](#), [sp02.pdf \(W02\)](#), [sp03.pdf \(W03\)](#),
[sp04.pdf \(W04\)](#), [sp05.pdf \(W05\)](#), [sp06.pdf \(W06\)](#), [sp07.pdf \(W07\)](#),
[sp08.pdf \(W08\)](#), [sp09.pdf \(W09\)](#), [sp10.pdf \(W10\)](#).
 - ❑ **LFS** — <http://www.linuxfromscratch.org/lfs/view/stable/>
 - ❑ **OSP4DISS** — <https://osp4diss.vlsm.org/>
 - ❑ **This is How Me DO IT!** — <https://doit.vlsm.org/>
 - ❑ PS: "Me" rhymes better than "I" duh!

Agenda

- 1 Start
- 2 Schedule
- 3 Agenda
- 4 Project FUSE 1

- The Linux Programming Interface
 - <https://man7.org/tlpi/>
- Source Code for The Linux Programming Interface
 - <https://man7.org/tlpi/code/>
- Ch. 2.5: File I/O Model
 - System Calls: `open()`, `read()`, `write()`, `close()`, and so on file descriptor.
 - stdio library: `fopen()`, `fclose()`, `scanf()`, `printf()`, `fgets()`, `fputs()`
- Ch. 4: File I/O: The Universal I/O Model
- Ch. 5: File I/O: Further Details
- Always update your kernel
 - <https://doit.vlsm.org/007.html>