

S5FS

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Introduction

S5FS is a pretty old and simple Unix File System. It's one of the Operating System course's projects. We basically needed to implement the "Weenix" System that is a student-version mini Unix System. The original project requires us to implement various components in Unix system such as process management, device driver, virtual file system, S5FS and virtual memory. Here I only included my VFS, also virtual file system, and S5FS for coding sample because the code of them are almost together, which is better for you to understand my coding standard, my function design skills, etc. I also wrote a unit test to test the whole file system that covers plenty of test cases.

Code info

3000 – 4000 lines of C code

Files

The following files are written or modified by me (I isolated them in `./my_work`):

`s5fs.c` (`./S5FS_wrapper/Weenix/kernel/fs/s5fs/s5fs.c`)

`s5fs_subr.c` (`./S5FS_wrapper/Weenix/kernel/fs/s5fs/s5fs_subr.c`)

`vfs_syscall.c` (`./S5FS_wrapper/Weenix/kernel/fs/vfs_syscall.c`)

`open.c` (`./S5FS_wrapper/Weenix/kernel/fs/open.c`)

`namev.c` (`./S5FS_wrapper/Weenix/kernel/fs/namev.c`)

The following test file are written by me:

`s5fs_test.c` (`./Weenix_wrapper/Weenix/kernel/test/s5fs_test/s5fs_test.c`)

(`s5fs_test.c` covers a lot of unit test cases for testing the S5FS and VFS component.)

Execution

Run `"make"` in the root directory and then run `"./weenix"`. You must have Unix environment.

Thank you for reading my code.