

## **Readcount**

I created a getreadcount systemcall in XV6. It reads systemcalls has a reset functionality and can even track multiple systemcalls other than read.

File modifications:

Syscall.h added systemcall number

Syscall.c added counter and tracking

Sysproc.c implemented system call handler

User.h declaration for the function

Usys.s added assembly stub

Makefile added the program

Getreadcount created the program itself

To run the program you need to use make and a emulator of your choice. I used qemu.

Screenshot of the program running:

```
QEMU
Machine View
Initial read count: 13
Performing 3 read operations...
After 3 reads: 16
Difference: 3 reads detected
Test PASSED

Reset Functionality Test
Count before reset: 18
Reset performed, old value was: 18
Count after reset: 0
Reset test PASSED

Multiple System Call Tracking Test
Performing various file operations...
Read count: 1
Write count: 40
Open count: 2
Close count: 2
Multi-syscall tracking test PASSED

All tests completed!
```

Repo: <https://github.com/LUTVeeti/K-ytt-j-rjestelm-t-ja-systeemiohjelmointiprojektit.git>