NunyaOS

Week 9

Updates

- Round Robin scheduling seems to work (Zach, Shuyang)

- Mouse drawing and erasing over video buffer works (Alex)

- Nested windows are working (Kyle, Zach)

- Read file from user mode (Ryan, Jesse)

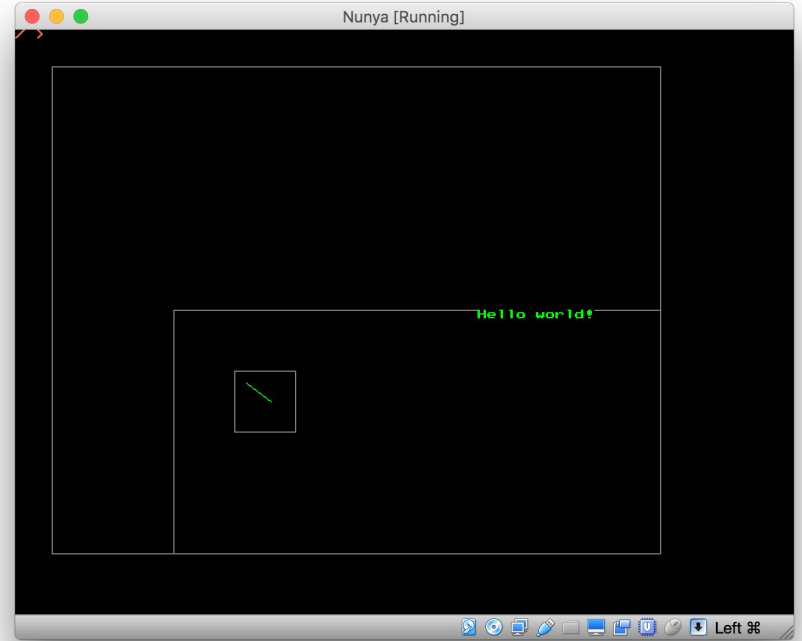- Windows sys call (Kyle, Alex)

Scheduling

- 2 user programs created

    - One prints even numbers and then creates a program that prints odd numbers, yields in a loop

    - Odd program yields in a loop

- Programs successfully yield back and forth

- A few discoveries made:

    - Clock_wait() yields

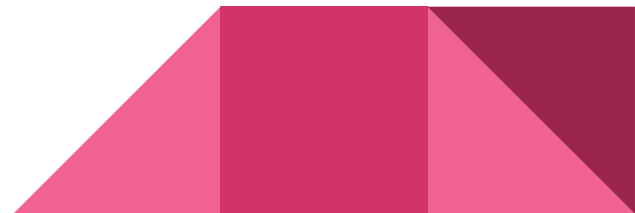   - Scheduling is already built in (set preempt = 1)

Nested Windows

- Uses an offset system that's calculated from the parent
- Drawing is relative to window's own coordinate space

FS Progress

- Read a file in a user space program (demo)
- Enforce security measures below user mode

```
fd = open()
read(buf, 25, fd)
close(fd)
remove_fs_allowance("/3/")
fd = open  -> failure
```

System Calls

- open(), read(), close(), add_fs_allowance(), remove_fs_allowance() functioning
  - JIRA issue for add_fs_allowance() -> allowance of "/1/home/a" would give access to "/1/home/aardvark/hacks.java"
  - JIRA issue for open(), close() -> OS open files table not implemented
  - write() unimplemented so far
- Window create, various draw functions all implemented
  - Processes now have their own window, system calls only draw to that window
  - Arc drawing functions not implemented yet

Future Plan

- Flesh out process restriction plan

- Have each feature team accommodate hierarchical containment within that restriction plan

- Make more user-level programs with windows

- Add some simple close button/redrag for windows

Questions

- How to handle doubles in sys calls
  - Passing by reference seems clunky