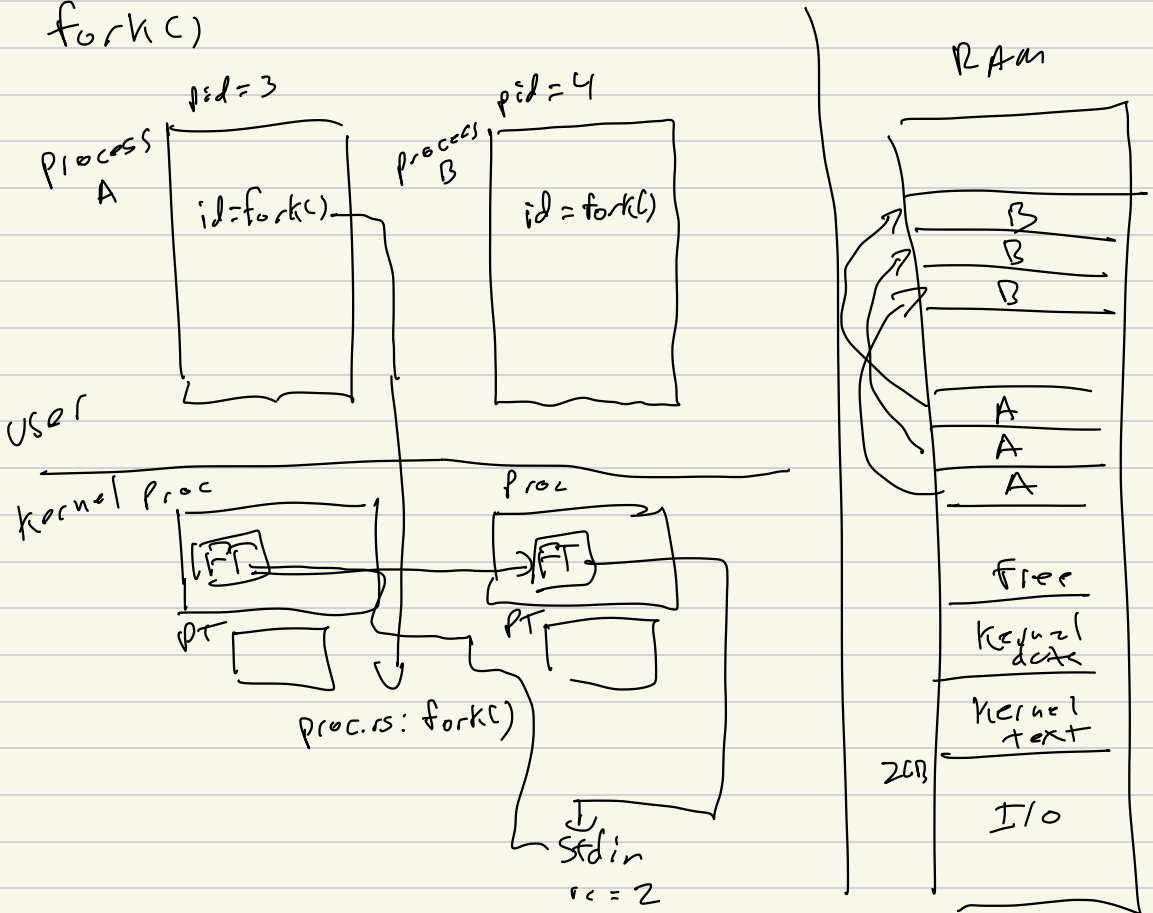


Today

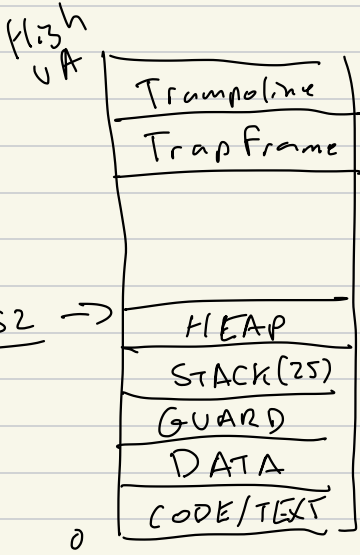
fork()
exec()
wait()

Track implementation

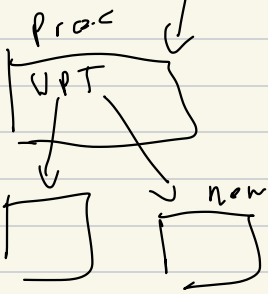
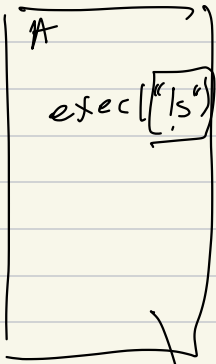
fork()



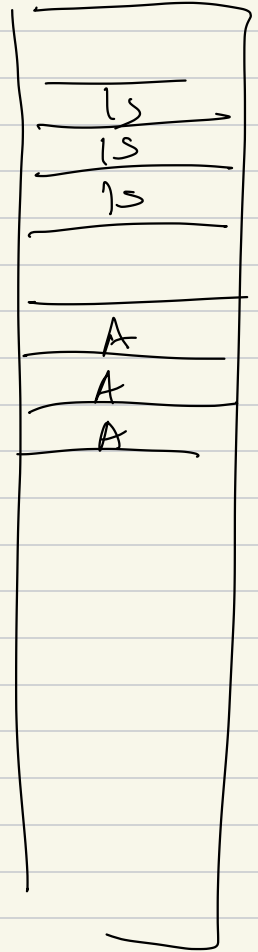
User Virtual Address Space



exec()



RAM



track (Project 06)

Ingredients

```
$ track ls
```

```
$ track wc README.org
```

fork() / exec() / wait()

Two new system calls

sys::track-self() ← turn on tracking for current process

sys::track-wait() ← parent

& Track Metrics

```
sh
$ track ls
fork()/exec()
```

```
track
id=fork
parent
new TrackMetrics
sys::track_verify
```

```
child
id=fork()
sys::track_self()
exec("ls")
read()
```

```
prog.fs
sys::fork_wait(TM, &sec)
```

```
Proc
bool: track true
Metrics
syscall
```

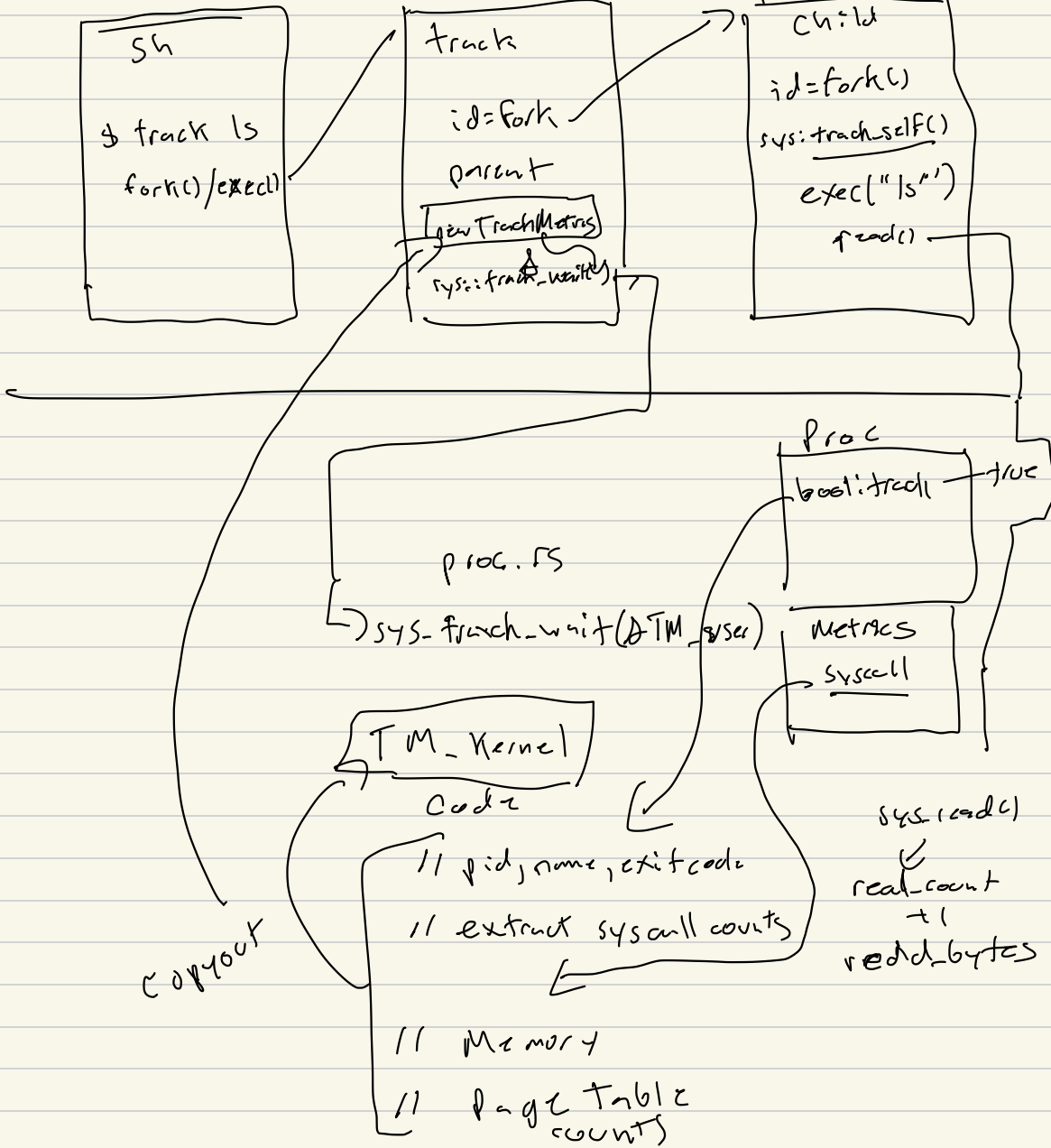
```
TM_Kernel
Code
```

```
// pid, name, exit code
// extract syscall counts

// Memory
// Page Table counts
```

```
sys::read()
read_count
+1
read_bytes
```

copyout



Page Table

