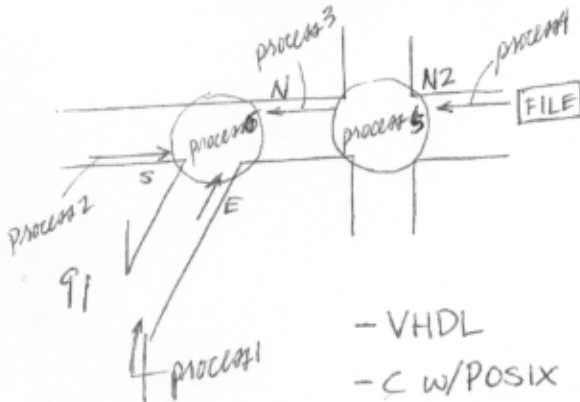


# Simulation

HK1 - simulator for a specific problem (traffic light)  
 model of a real environment / object / ...

## Goals:

- understand problem
- solve problem
- demonstrate problem/solution to bosses, customers, employees



multiple processes

- scheduling processor (sequentializing them)

- VHDL
- C w/POSIX extensions
- SystemC (C++ threads)
- Java (threads)
- Unix (prog1) -> file -> (prog2)

**SIMULATION - MASTER OF TIME!**

wait until clk = '1'  
 =  
 wait on clk until clk = '1'

## - VHDL

- discrete event simulator

Signal a: integer signal b: integer

```
P1: process
begin
  a <= '1';
  wait for 10ns;
  a <= '0';
  wait for 10ns;
end;
```



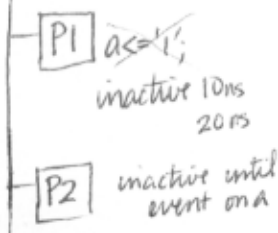
```
P2: process (a)
begin
  b <= b + 1;
end;
```

sensitivity list

```
P2: process
begin
  b <= b + 1;
  wait on a;
end;
```

## Simulator

list of processes



list of ~~events~~ signals

