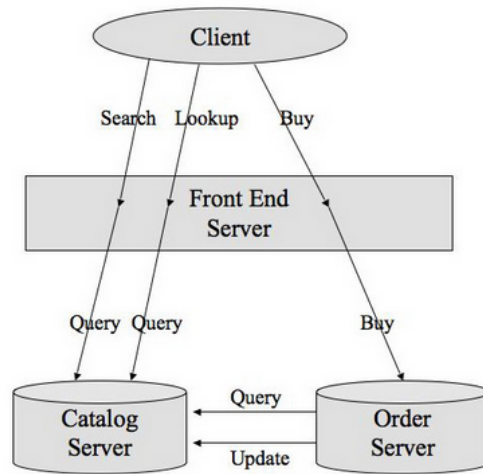# Project 2 Architecture
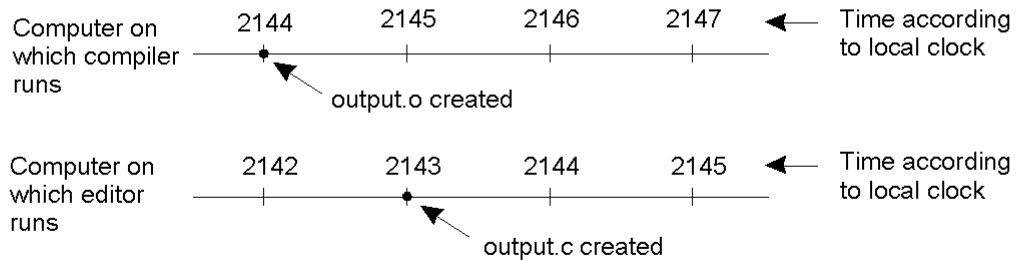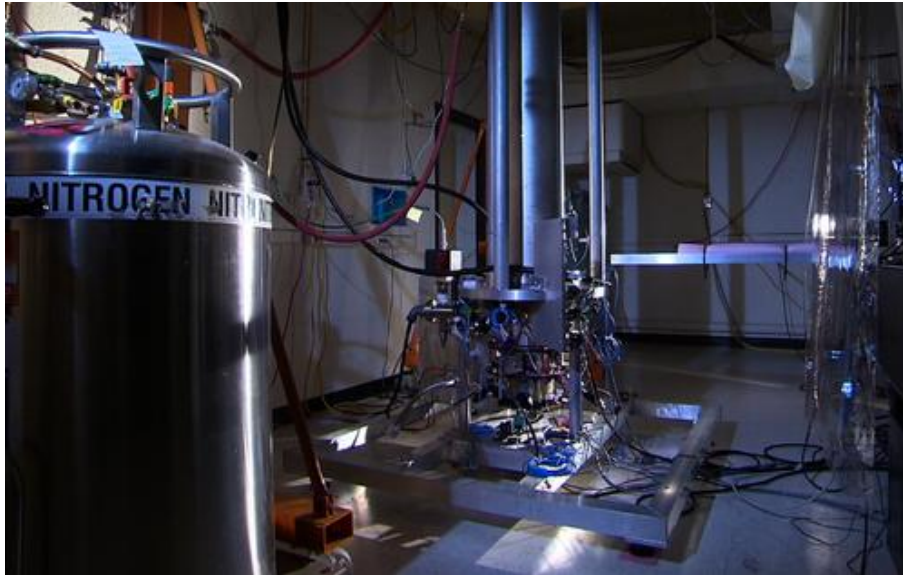
Event Ordering in Make
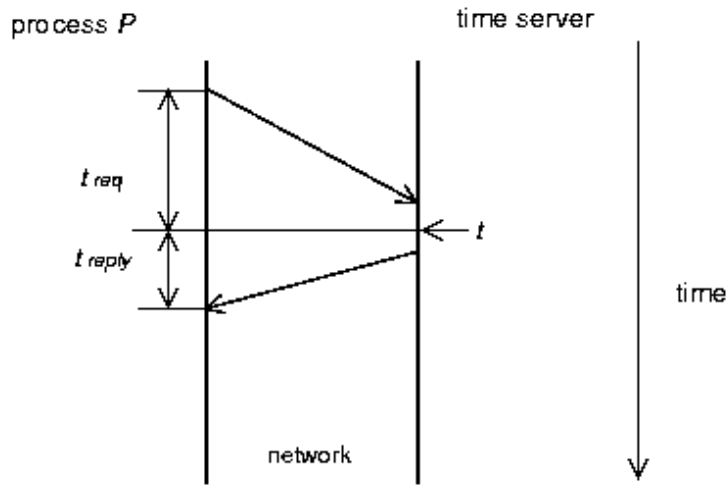
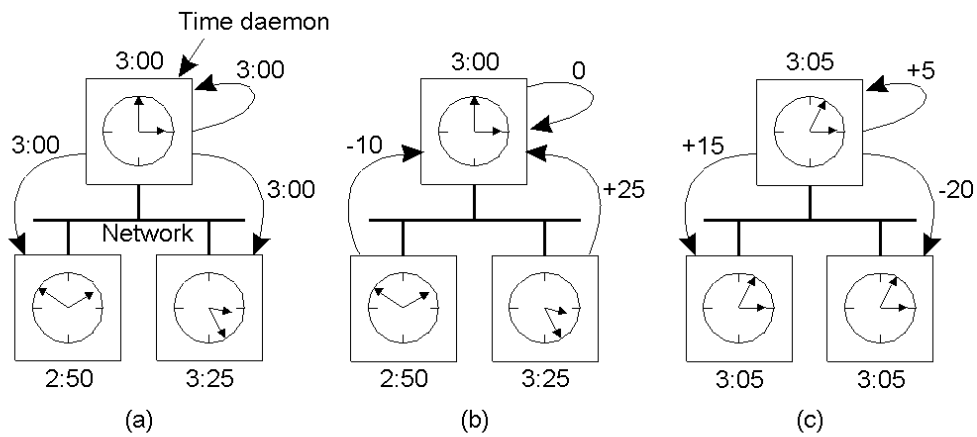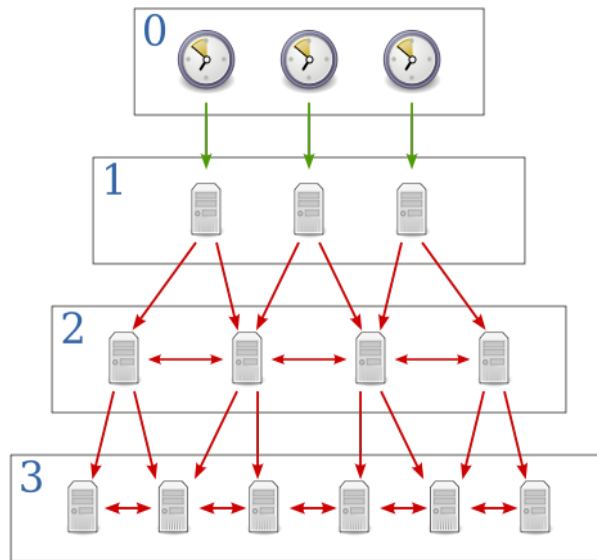# Clock Synchronization

Berkeley Algorithm

- Used in systems without UTC receiver
  - Keep clocks synchronized with one another
  - One computer is *master*, other are *slaves*
  - Master periodically polls slaves for their times
    - Average times and return differences to slaves
    - Communication delays compensated as in Cristian's algo
  - Failure of master => election of a new master
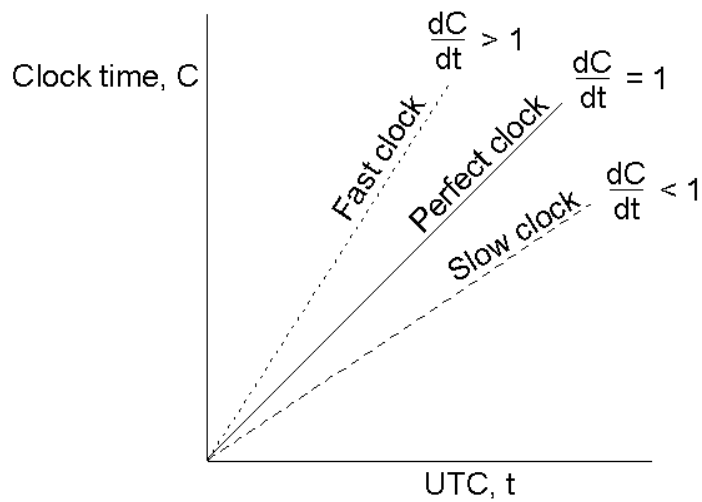
Berkeley Algorithm

Network Time Protocol Strata

Sean Barker

NTP Synchronization
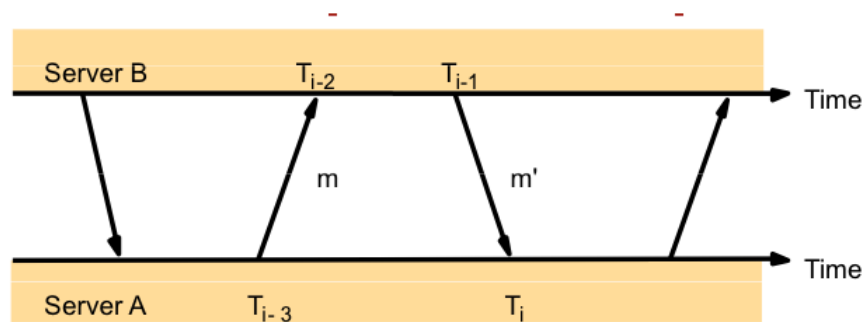
$$o_i=(T_{i-2}-T_{i-3}+T_{i-1}-T_i)/2 \qquad d_i=T_{i-2}-T_{i-3}+T_i-T_{i-1}$$

Sean Barker

Logical Clocks

Sean Barker

Lamport Clocks

Sean Barker