

Labor 2

Konzeption

Ablauf:

Create Master

Master creates Manager

Manager creates Workers

Worker connects to Master

Master gets new N

Master creates pseudo random numbers

Master sends msg to each worker: $\text{rho}(N, \text{randomNumber})$

First Worker returns divisor, cpu_time, cycles

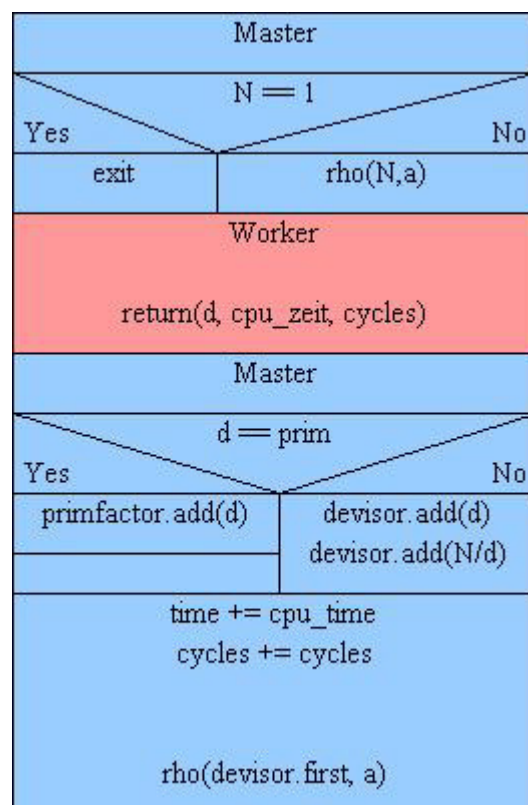
Master checks if its prim:

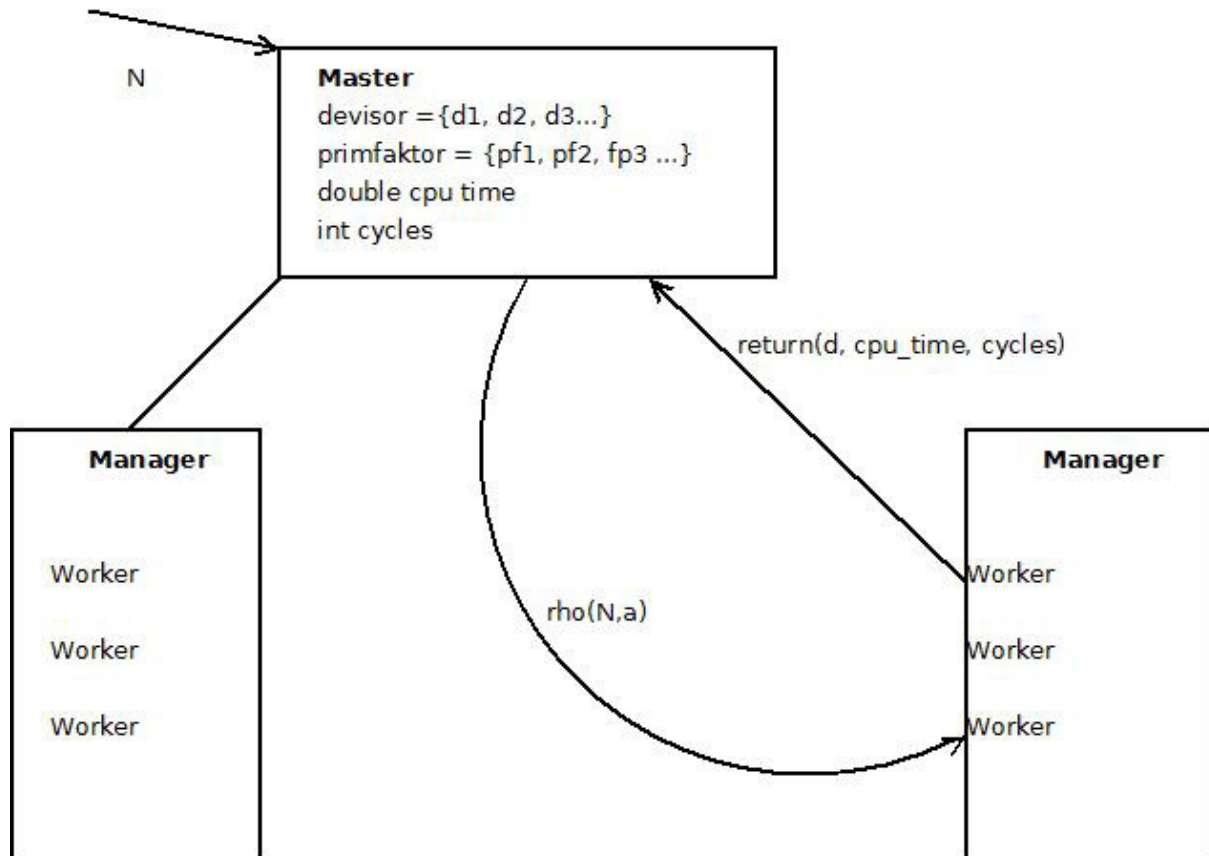
Yes: Add primfaktor to primfactor list.

No: Store it in divisor list (queue) to rework on it

Send new task to all worker with next d and a new randomNumber

When divisor list is empty Master kills the Manager and prints out the primfactor list.





- Every Manager / Worker is connected to the Master.

Messages

NEWNUMBER , N
 RETURNDEVISOR, d, cpu_time, cycles
 SHUTDOWN

Master -> Worker
 Worker -> Master
 Master -> Manager

If the deadline is reached $d = -1$ is returned.

In our plan all the workers are in a race to find the next divisor.
 The first worker who found one automatically starts a new race for all workers with a new number.

Another possibility is only to send the founder a new task with a new number but then they are not "helping" each other and they may run up to their deadline.

To Do

Server unreachable
 2 Worker finishing at the same time
 Measure cputime vs wall clock time