DRAFT

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Notes on Scheduling

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1. There is a priority list operated on a multi-level basis. Running, ready and waiting process are kept in the list, (marked with processor #). Basis of percolation is CBU time.

2. Priority list entries may be marked with flags for: elligibility, running, waiting.

3. Elligibility is conferred on other processes at time bursts (if appropriate), calls to block~~s~~), or restart, on the basis of the preempt~~or~~ee having run longer than the preemptor will run. Processor preemption by the highest elligible process is immediate.

4. Parameters:

max. elligible ≡ maxloaded = 2

time burst = 1 second

q = "~~quantum~~ smallest allotment of user cpu usage" = 4 sec. (now) → 2 sec. (Oct. '69) → 1 sec. (future)

ℓ_0 ≡ system level

ℓ_1 to ℓ_n ≡ user levels

ℓ_{n+1} ≡ idle level

Q_i = CPU time allotted at level i of priority $= \begin{cases} q, & (i=0) \\ q \times 2^{i-1}, & (i \geq 1) \end{cases}$

$n = 2 \rightarrow 3$ (Oct. '69)

5. Quit causes an interaction and rescheduling (as a user), whether blocked ~~writing~~ waiting, ready or running.

6. Block c~~e~~all may if programmed to cause an interaction and if so causes loss of elligibility.

7. Implementation:

Keep only one priority list with flags for all ready, running, waiting processes and another list for blocked processes.