

**NC STATE UNIVERSITY**

Message Board

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Author **Topic: Goodness of a new process**

adhanas Wed Jan 29 16:37

What will be the default goodness of a new process that is created during an ongoing epoch?

wzhang27 Wed Jan 29 16:48

New processes created in the middle of an epoch will wait till the next epoch.

For a process that has never executed or has exhausted its time quantum in the previous epoch, its new quantum value is set to its process priority.

please read the assignment carefully.

adhanas Wed Jan 29 17:08

My question was about the goodness and not about the quantum.

Quoting from the project document:

"For processes that have used up their quantum, their goodness value is 0. For other runnable processes, their goodness value is set considering both their priority and the amount of quantum allocation left: $\text{goodness} = \text{counter} + \text{priority}$."

Does this mean that a new process would have a goodness of (counter + priority)? Since this is a new process, its counter remains intact which would be same as the initial quantum allocated to it.

wzhang27 Wed Jan 29 17:25

Does this mean that a new process would have a goodness of (counter + priority)?

yes

msriniv3 Thu Jan 30 0:29

Shouldn't the goodness for a new process be equal to only its

priority?

wzhang27 Thu Jan 30 9:15 

For a process that did not get to use up its previously assigned quantum (conditions like, change from another scheduling algorithm), we allow part of the unused quantum to be carried over to the new epoch. Suppose for each process, a variable counter describes how many ticks are left from its quantum, then at the beginning of the next epoch, $\text{quantum} = \text{floor}(\text{counter}/2) + \text{priority}$. For example, a counter of 5 and a priority of 10 will produce a new quantum value of 12.

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