

Dear Intel Engineer,

I am currently working on an application that needs to guarantee real-time performance.

We are trying to construct a system for the application using as follows:

1. Intel Processor
2. Preempt RT patched Linux (Ubuntu)

The desired cycle time for meeting real-time deadline is not determined yet (probably desired cycle time = 250 us; but the faster the better).

However, although the faster cycle time is still important, I am more concerned about minimizing or better to completely eliminating indeterminism which might be caused from C-state transition, P-state transition, and etc.

I am following this document (link : <https://www.all-electronics.de/wp-content/uploads/migrated/article-pdf/41892/432ei0111-323671.pdf>)

So here are my questions:

1. Does the document provide sufficient information for realizing a system that is capable of meeting hard real-time requirements? (please provide any other information if available)
2. If the term "hard real-time" is ambiguous in its meaning, can you provide to what extent the intel processor can be capable of meeting hard real-time requirements? (for example, if all the required settings are done appropriately, the maximum latency that could happen is 100us at most)

Thanks,

Sincerely jpyo