Interrupts

1. Put the I/O request process to sleep and switch context
2. When the device is finished, send an interrupt to wake the process waiting for the I/O

✓ CPU is properly utilized

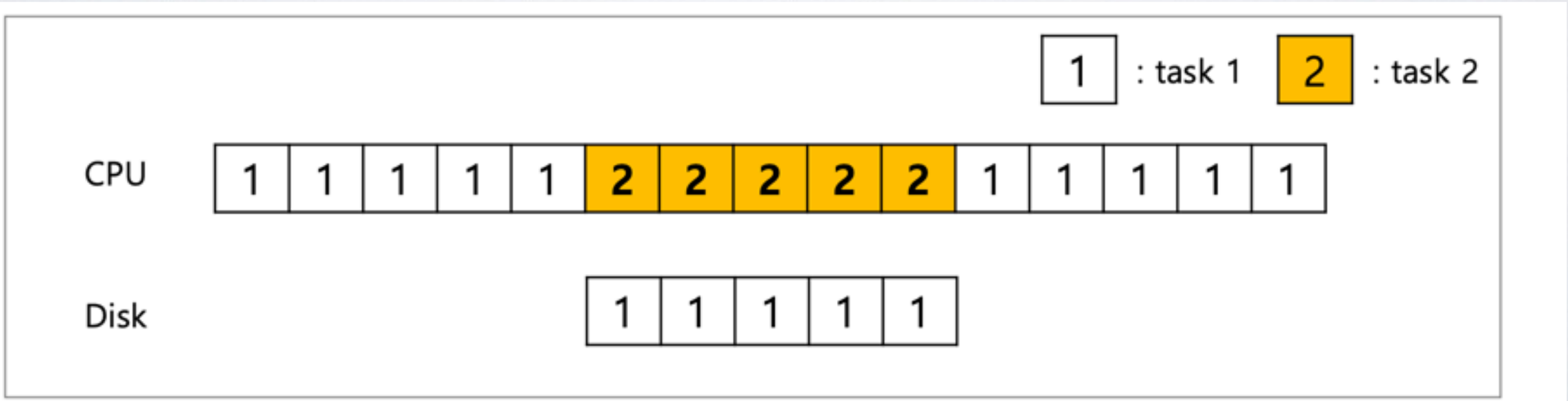

Diagram of CPU utilization by interrupt

Polling vs Interrupts

➡ **Interrupts is not always the best solution**
If, device performs very quickly, interrupt will slow down the system

E.g. high network packet arrival rate

- Packets can arrive faster than OS can process them
- Interrupts are very expensive (context switch)
- Interrupt handlers have high priority
- In worst case, can spend 100% of time in interrupt handler and never make any progress a.k.a receive livelock

✓ Best - adaptive switching between interrupts and polling