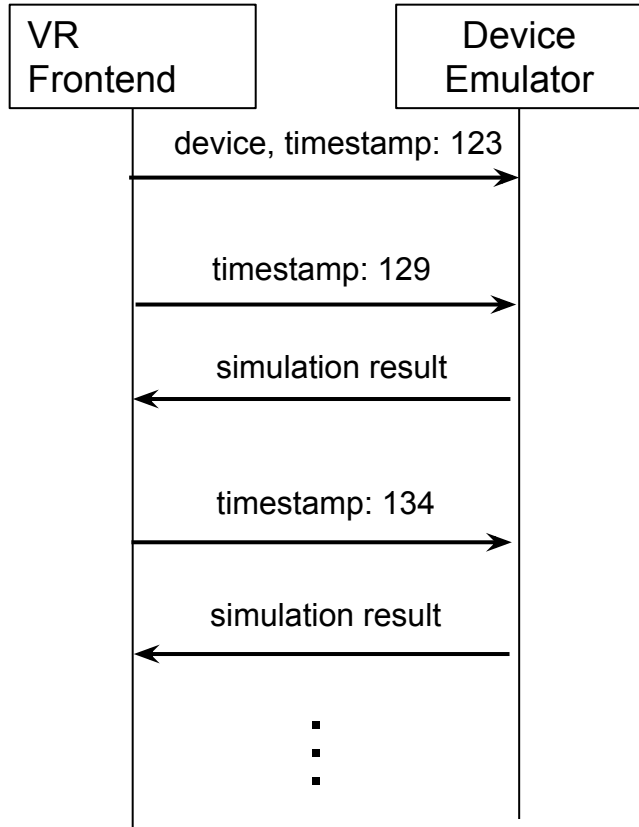


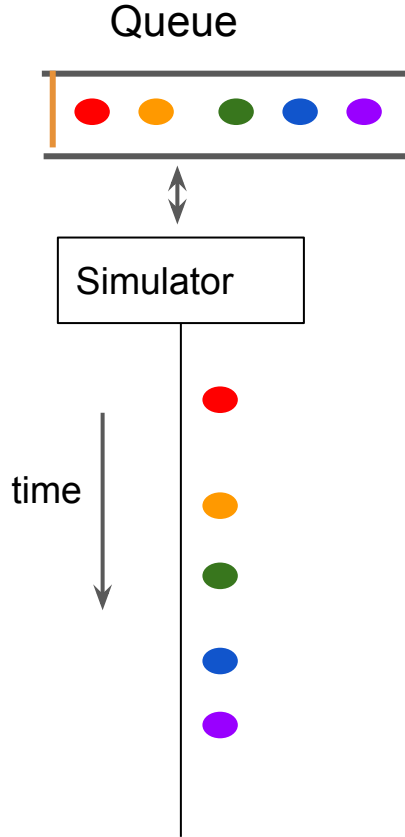
Simulation in Device Emulator

VR - DE Communication



- Pull model
- Repeated request of simulation
- Each request contains environmental data

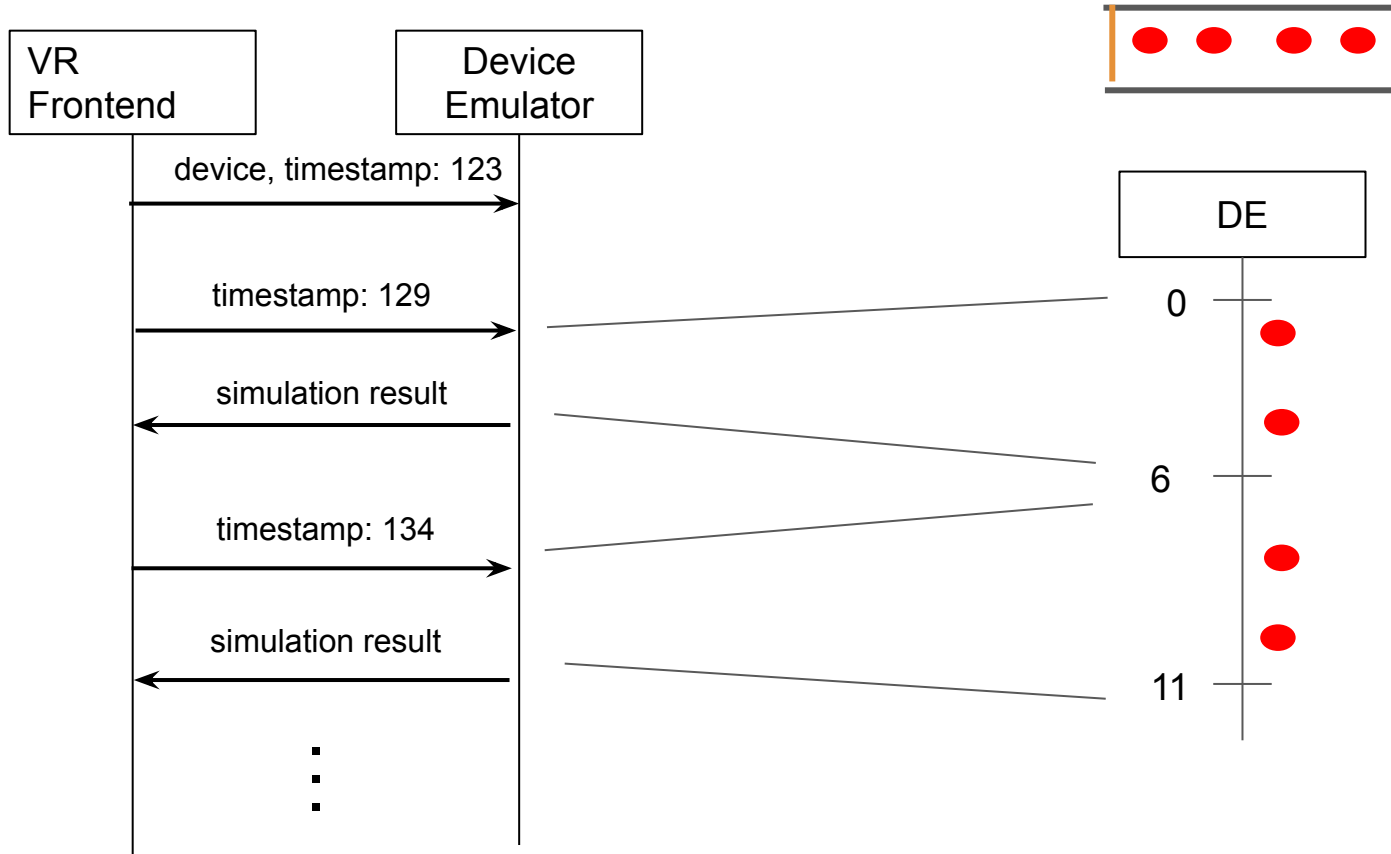
Discrete Event Simulation



- An event is anything that should be processed during a simulation
- Examples:
 - Change pin voltage
 - Change internal state etc.
- Events are stored in a queue

Processing an event can trigger future events

Event Processing in DE



Key Takeaways

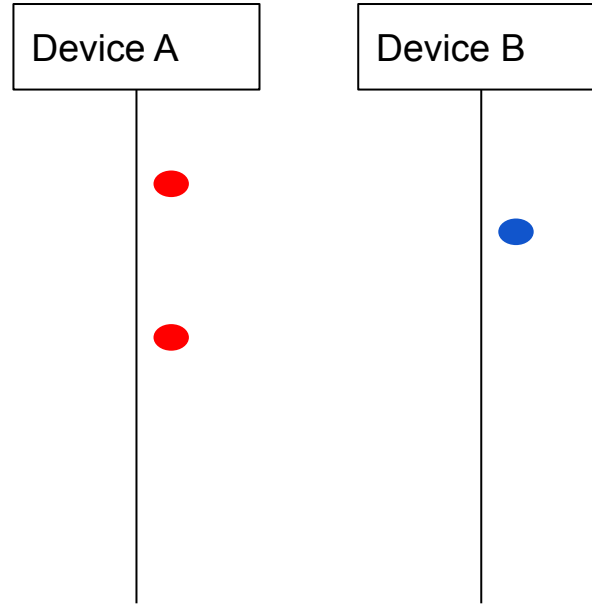
- A device does not run continuously
- A device runs partially upon request from VR

Multiple Device Simulation

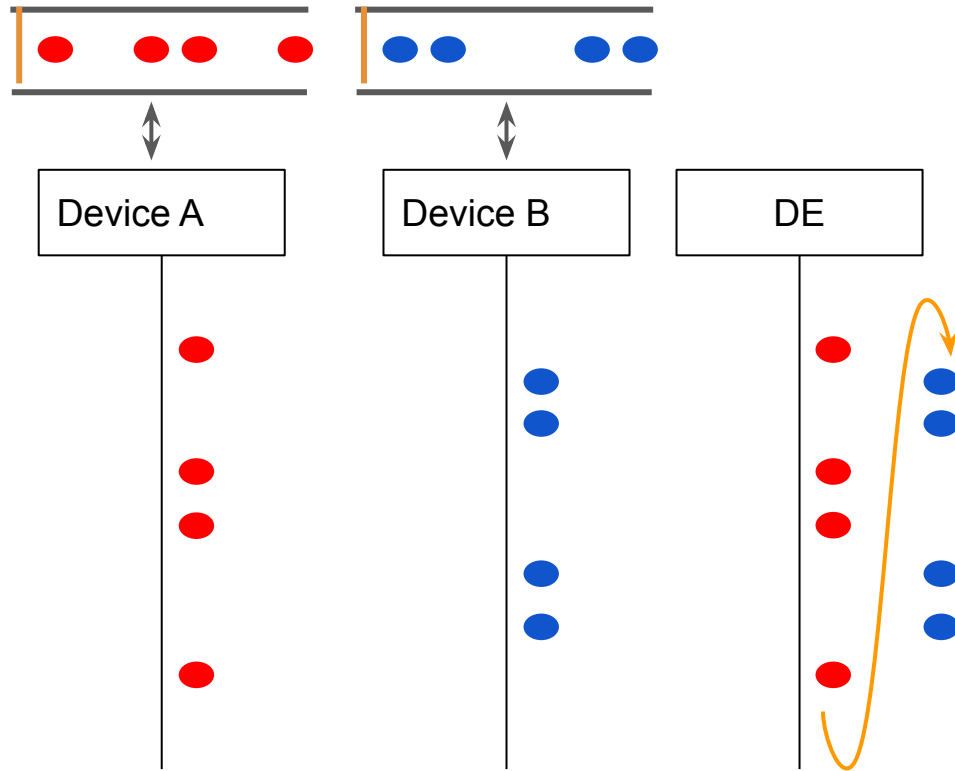
Different ways to perform multiple device simulation

- Sequential
- Interleaving
- Parallel

Networking



Sequential Simulation



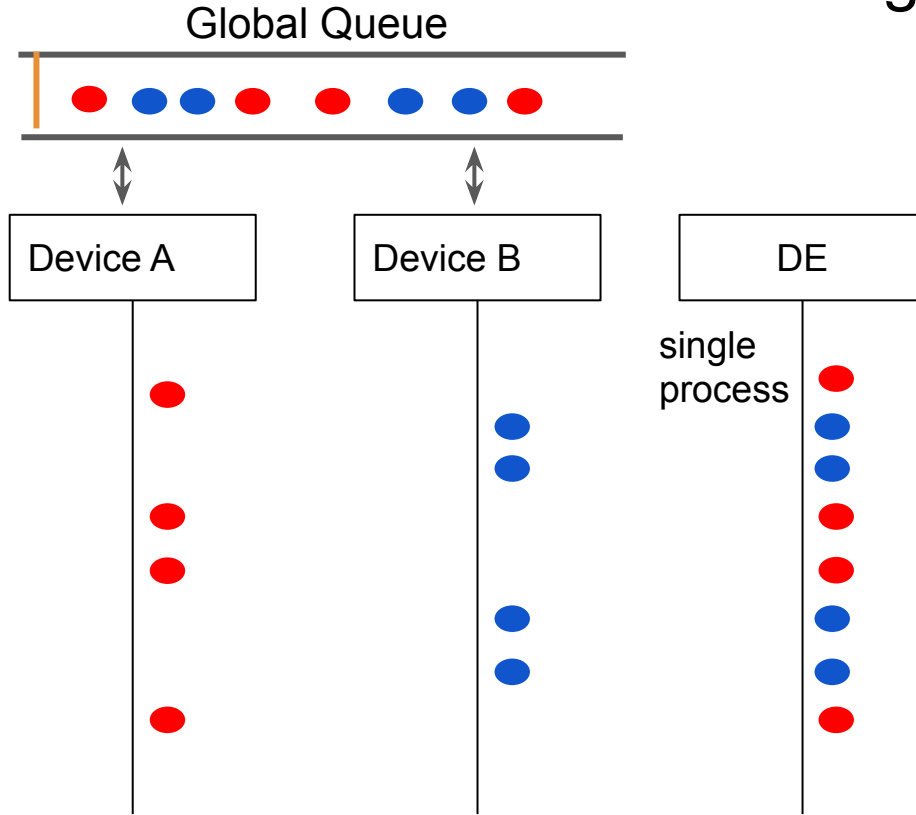
Pros

- Very simple logic
- Requires minimum change

Cons

- Can't perform networking

Interleaving Simulation



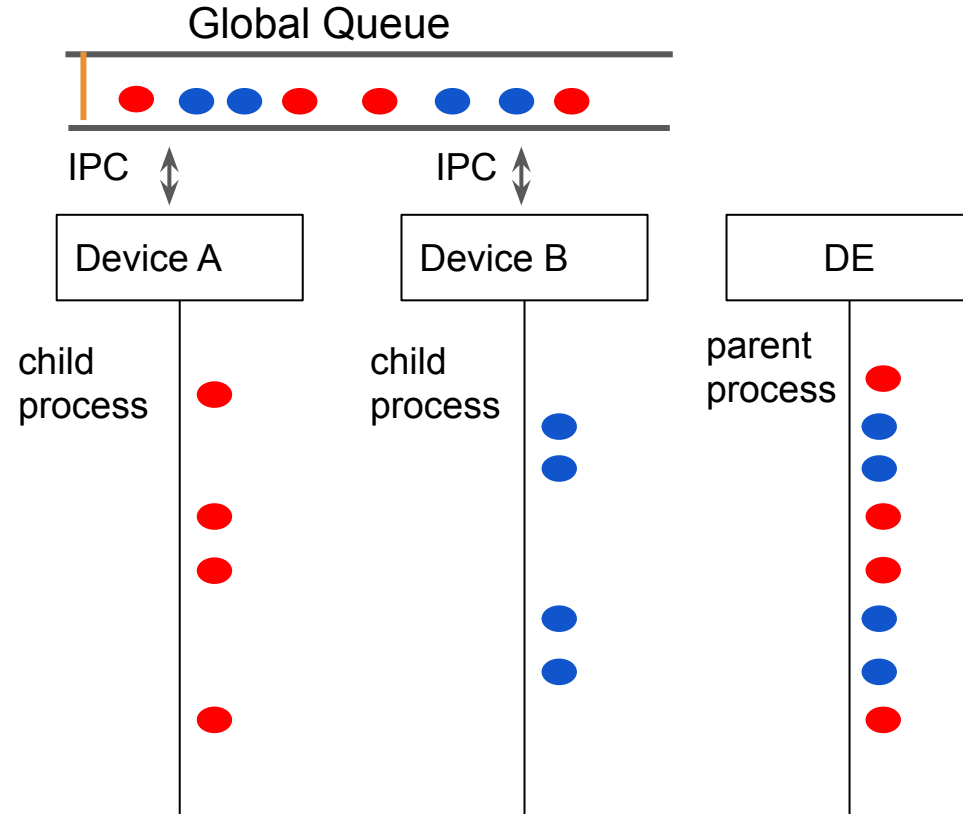
Pros

- Similar logic as current implementation
- Requires less change compared to parallel simulation

Cons

- An error in a device can terminate whole session

Parallel Simulation



Pros

- An error in one device process will not affect other device processes.

Cons

- Requires additional computational resource
- Implementing IPC will be tough

Parallel Simulation

Why still global queue?

Suppose,

