Threads vs Events Background/Discussion

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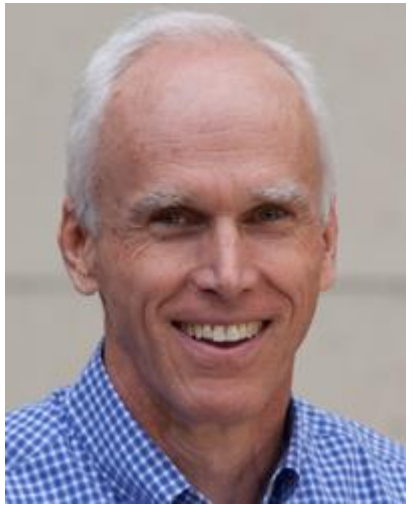

Why Threads are a Bad Idea

- Invited talk at the 1996 USENIX conference (Jan. 25)
- Background:
  - Threads were a new and popular idea in 1996
  - Threads were being recommended for many applications, especially GUI applications
  - The existing technology for GUI was event driven processing
- No paper written

Conceptual View of the Event Loop

```
while(1) {
        if (eventQue.hasData()) {
                newEvent=eventQue.getFirst();
                newEvent.run();
                if (eventRequestedExit) break;
        }
        if (newEvent=getEvent()) eventQue.addLast(newEvent);
}
```

Follow-Up Discussion

- 1996 was over a generation ago! What has changed since then?
- What is the impact of Moore's Law?
  - Does Moore's Law still hold?
- Why is concurrency so hard to debug?
- Are Wizards still required to code with threads?
- See also:
  [Why Events are a Bad Idea]