

# CS 571 Materials

February 5, 2002

4:30pm - 7:10pm

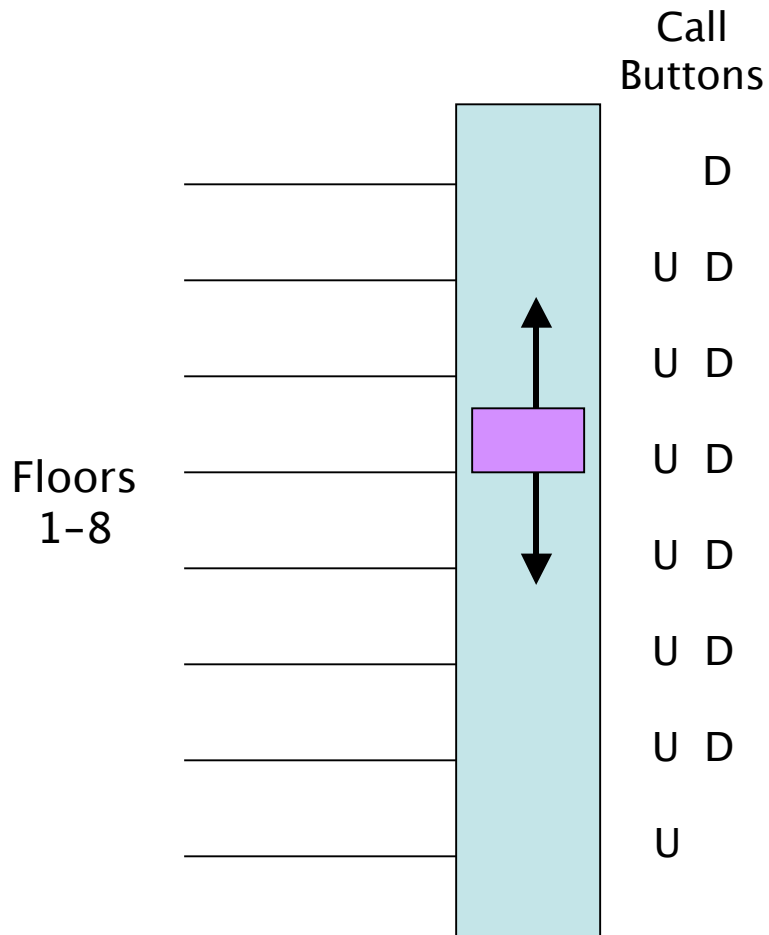
**Peter J. Denning**

# AGENDA

- Q&A
- Overview of A2 and P1
- Synchronization
- Monitors
- Procedures (if time)

# A2

- Group assignment (one paper)
- Learn to use monitors to solve complex multi-threaded problem
- Problem: an elevator controller



### System state

U	D	S
	2	2
		1
	1	
2	1	
		1

request matrix

floor, direction

car

# P1

- Group project
- Objective: implement in Java a simulation of threads (representing people) using the elevator controller of A2. Simulate elevator use with different usage scenarios.
  - Experience in multi-threaded programming
  - Prepare engineering report on your approach, findings, and conclusions.

# Engineering Report Components

- Statement of the problem, approach to solution, and main claims of the report
- Overview of architecture investigated as a solution to this problem (includes diagrams, data flows, data structure, algorithm sketches)
- Overview of the experiments used to test the architecture
- Results of the individual experiments (including graphs and plots)
- Findings and conclusions
- Appendices: simulator source code; raw data outputs