UNIVERSITY OF CALIFORNIA
College of Engineering
Department of Electrical Engineering and Computer Sciences

EECS 249   **A. Sangiovanni-Vincentelli**
Fall 2012   **P. Nuzzo**

Lab 1: Elevator Control – Phase 2
Due Tuesday, October 9, 2012

Lab 1 is based on Ptolemy II. Useful links and instructions for installation can be found on the class website. It is recommended that you also look at the tutorial and go through some of the examples and demos before starting the assignment.

For this phase, you are required to modify the design you developed for Phase 1 under the assumption that there are now 10 floors to be handled in total. As in Phase 1, the elevator only responds to external requests. Moreover, design requirements are still as follows:

a) The elevator keeps going in one direction (up or down) until all the requests in that direction are serviced;
b) If there are no pending requests beyond current floor, the elevator changes direction or stops until further requests come in.

As in Phase 1, you should create a simulation environment that shows the elevator working with different inputs, and email the project files to nuzzo@eecs.berkeley.edu. In addition, you should submit a report addressing the following aspects:

a) Provide a brief description of the designs you implemented in both Phase 1 and 2. How did you model the elevator? How did you model its environment?
b) Is the model you picked in Phase 1 still convenient for Phase 2 (e.g. from a scalability standpoint)? What did you do differently?
c) After the presentation of all the solutions in class, write down one thing you learned from each colleague. Is there anything you wish you had known about for your own design? Any potential improvements you can see in others' solutions?
d) If you had more time, would you have implemented the same design? If not, provide a description of a better implementation.
e) Were there any tool limitations (or limitations in your knowledge of the tool) forcing you to implement your ideas in a certain way? If so, what would you have done without any limitations?
f) What is your global assessment about your learning experience with Ptolemy II? What aspects did you like or dislike most?