Homework 4
Logical Agents I and OpenNERO

Due: Thursday, Sept. 26th, at beginning of class (11:10AM). (Either bring hard copy to class or submit to Blackboard by due date/time.)

[Only answer the questions for your type of credit – undergraduate or graduate.]

1. [Everyone] Work problem 7.1 on pages 279-280. (“Suppose the agent has progressed…”). [It is fine to present your answer in a tabular form.]

2. [Everyone] Work problem 7.4, page 280. (“Which of the following are correct?”)

3U. [Undergrads only] Work problem 7.2, page 280. (“(Adapted from Barwise…”)

3G. [Graduate students only] Work problem 7.6, page 281. (“Prove, or find a counterexample to, …”)

4. [Everyone] OpenNERO is an open source software platform for research and education in AI, developed at U. of Texas at Austin. Read about this software here: http://code.google.com/p/opennero/. The point of this exercise is simply to get the software running and gain some minimal familiarity with it. We will use it more in later homework(s).

   a. Using the instructions and software available at the above link, install OpenNERO on the platform of your choice. Explore the use of the software. [Nothing to turn in for this step]

   b. Run OpenNERO using the Maze mod, and try various settings. Turn in a screen shot of one of the “canned” algorithms running in the Maze environment.

   c. Run OpenNERO using the Roomba mod, and try various settings. Turn in a screen shot of one of the “canned” algorithms running in the Roomba environment.

   d. Run OpenNERO using the BlocksTower mod, and try various settings. Turn in a screen shot of one of the “canned” algorithms running in the BlocksTower environment.