Search — Homework 3

September 18, 2005

Due: 11:59 pm — September 24, 2005

Submit to "Assignment 3" in the homework submission website.

In this homework, you are asked to improve your program in "*Assignment 2*" in the following aspects:

- the search should avoid visited states (some of you have done it, so less work now).

- the search should make use of the heuristic; to do this, you should implement the greedy-best first seach (the third case in the `search` procedure).

In addition, you will need to encode the problem given in Figure 3.2 (the simplified road map of part of Romania, page 63, Russel and Norvig's book) and use the straight-line distance (page 95) as the graph in our *rather cumbersome* representation and use it for testing. (I placed some copy of the two pages in my mailbox; please take one if you need it).

Again, your program should print out

- the list of nodes which are visited during the search; and

- the solution.

Please submit both your graph representation and `main.cpp`.