

Daily Log

Monday December 9

I created a new input file that corresponded to a Manhattan-style road network. It consisted of a five by five array of *Vertices* that were on lattice points. I fixed a bug in my code which occurred when there were no outgoing *Edges* from a *Vertex* that could spawn *Cars*.

Tuesday December 10

I tested my Manhattan input file but I ran into a bug that affected my DTD navigation system. It is currently reporting that some Events indicate that certain *Edges* have actual speeds that are greater than the *Edge's* speed limit. Other *Edges* have negative speeds. Both of these cases should not be possible.

Thursday December 12

I continued debugging my program to fix the DTD navigation system bug, but I am still stuck on it. I have tried comparing the differences between my proof-of-concept map and my Manhattan-style map to identify the issue. However, I have not yet been able to resolve this problem.

Timeline

Date	Goal	Met
11/18/19 - 11/24/19	Add the ability to see the history of <i>Cars</i> .	Yes, clicking on <i>Cars</i> displays their current state.
11/25/19 - 12/8/19	Add the ability to see the history of <i>Events</i> .	Yes, I've added a search tool that allows users to input an <i>Event</i> id to get the current state of the <i>Event</i> .
12/9/19 - 12/15/19	Create Manhattan-style, rural, and dense map input files and begin testing the effectiveness of DTD on them.	I created the Manhattan-style map, but I found a bug in my DTD navigation system that produced impossible speed values for <i>Events</i> .
12/16/19 - 12/22/19	Fix the DTD navigation system bug and create rural and dense map input files.	
12/23/19 - 1/5/20	Winter break	
Winter Break	I want to show a significant difference in time between my DTD/non-DTD cars for multiple types of maps (basic, Manhattan-style, rural, dense). These should be displayed on a JavaScript Web server, which can be interacted with by user (start/pause/click on objects to access current variables given a frame number).	

Reflection

This week, I created a Manhattan-style map and tested my program on it. I discovered a bug that caused some of my *Events* to report impossible values for the actual speeds of some *Edges*. I spent most of the week trying to debug my program to identify the issue, but I am still currently working on it.

Since I ran into a bug in my DTD navigation system, I pushed back creating the other input files for different types of maps to next week. If I can fix the DTD navigation system bug, I should be able to create the rest of the input files to meet my Winter Break goal.