Compiling Instructions for The Planner

Note: The submitted code can only be compiled on a windows machine because the graphics library used for visualization depends upon “windows.h”.

Source Files:

1. Bitmap.cpp
2. fssimplewindow.cpp
3. main_run.cpp

Header Files:

1. Bitmap.h
2. planner.h
3. motion_prim.h
4. fssimplewindow.h

Other Files:

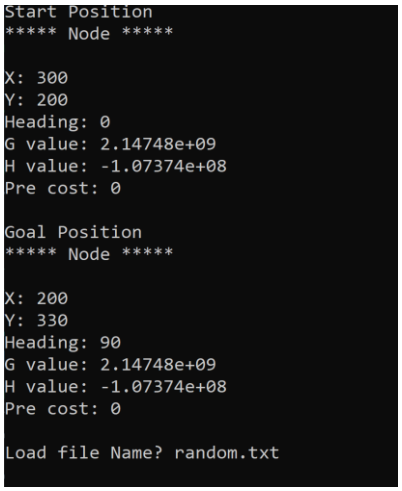
1. map1.txt
2. test.txt

Make sure all the above-mentioned files are in the same directory. Compile all the source files using whatever compiler is available on your pc. The code has been tested only using Visual C++ compiler. So, it might or might not compile on some other compiler.

Testing the Planner:

1. For starting the planner you will have to give it a start and a goal pose. It can be changed by changing the values of arguments for start and goal in **main_run.cpp** line 96. If you don’t want to change it the default values work well.

2. Once you run the program. It will ask you to provide a map file. Two map files have been submitted, map1.txt and test.txt. Just enter the name of whatever map file you want to load.



3. Once map is loaded the planner starts and the vehicle starts moving towards the goal.

4. Once the vehicle has reached the goal, the program prompts the user for entering a new goal. To do this move your pointer to wherever you want the new goal to be and press key “p” and hit enter.

```
Expansions per second: 5318.84
Time Used: 0.003 seconds.
Total Expansions: 16
Expansions per second: 5333.33
goal reached
Move your pointer to next place you want to go and press p
```

5. The x and y coordinates of that point will be displayed in the terminal and program prompts if you want to park your car there. Press “y” or “n” and hit enter. Make sure x and y values are between 0 and 400.

```
Move your pointer to next place you want to go and press p
p
 goal X and Y are :X 74 Y 319
Do you want to park here?
y
```

6. Then the program will prompt you to enter the goal pose. Type in a multiple of 45 and hit enter.

```
 goal X and Y are :X 74 Y 319
Do you want to park here?
y
 What do you want the goal orientation to be? Enter a multiple of 45
180
```

7. You can repeat steps 4-6 however many times you want.

8. To close the program press escape or close the terminal window.