Project #3: Terrain Analysis and Occupancy Map (due Week 9).

 (10%) Openness Closest Wall

 (10%) Visibility

 (10%) Visible to Player (with 50% sniper spots)

 (10%) Search

 (5%) A\* with Analysis

 (15%) Propagation

 (10%) Normalize Occupancy

 (10%) Field of View (Hide and Seek)

 (10%) Find Player (Hide and Seek)

 (10%) Seek Player (Hide and Seek)

 (-30%) If A\* solution doesn't beat required time

 (-10%) If it crashes at any time

 (0 to -100%) Project 2 requirements regraded

 (extra credit) All Project 2 extra credit still available

 (extra credit 20%) Pathfinding with Fog of War

**Turnin Instructions (-10% for missing directions)**

 Remove "Project1A", "Project1B" and "Project2" directory and homework1!

 Submit everything in "Project3" directory.

 Submit all code, resource files, and exe (-5% if I can't double click exe and run) in exactly same order as the framework. (-5% for large unnecessary files: ".ncb" file, hidden subversion directories/files, a ipch/Debug/Release dir)

 Must be able to build project by running Batch.bat (-5% if I can't double click it to build, or if this file is missing)

 Submit readme.txt with a paragraph of experience, any special directions or extra credit explained.

**Note**

1. The framework supports VS2013 and VS2015.
2. By default the framework uses VS2013. You can change the setting via:

Project->Property->Configuration Properties->General->Platform Toolset

1. After you finish the project. Please change "vs\_version" variable in Build.bat file for the version of Visual Studio you use. (2013 for VS2013, 2015 for VS2015)
2. Double click Build.bat to build the project and place executable in "Pathfinding" folder. Then test your executable to make sure it runs and does not crash.
3. Change your executable file name to your user name. (So when TA build your project the executable does not get overwritten)
4. If you attempt speed challenge, mention in readme.txt
5. Before submission, double click Clean.bat to remove all unnecessary files.
6. Do not change "Pathfinding" folder name, project solution name, or any framework structure. (it may fail the automatic build check if you change any of them)

**Checklist**

1. Executable is in **release** mode.
2. Required: Fix all problems from Project 2.
3. Feature: (Terrain Analysis) Openness Closest Wall.
4. Feature: (Terrain Analysis) Visibility.
5. Feature: (Terrain Analysis) Visible to Player (with 50% sniper spots).
6. Feature: (Terrain Analysis) Search.
7. Feature: (Terrain Analysis) A\* with Analysis.
8. Feature: (Occupancy Map) Propagation Algorithm.
9. Feature: (Occupancy Map) Normalize Occupancy Map.
10. Feature: (Occupancy Map) Field of View (Hide and Seek).
11. Feature: (Occupancy Map) Find Player (Hide and Seek).
12. Feature: (Occupancy Map) Seek Player (Hide and Seek).
13. Extra Credit: (Fog of War) When Fog of War is on, show invisible walls in gray color and walls in black color. Turn invisible wall to wall only if tiny can see it.
14. Extra Credit: (Fog of War) Pathfinding should not treat invisible walls as walls. Re-path when necessary so tiny reaches the goal without passing through walls.
15. The program does not crash.
16. Run "Timing Test Long" button and get "Minimum time". Make sure the result beats TimeToBeat\_RequiredForProject3.exe
17. Wrote special directions, experience, and extra credit in the readme.txt.
18. Submitted on the network ("Submit") folder BEFORE 6:00PM.
19. **DO NOT ZIP THE PROJECT**.
20. All code and resource files were in "Project3" folder.
21. Removed all other files and folders in your submission folder.
22. Changed "vs\_version" variable in Build.bat file for the version of Visual Studio you used.
23. Did you test the exe runnable without the debugger? Test it by double clicking the exe to run (NOT IN THE DEBUGGER).
24. Did you remove all unnecessary files? Include but not limit to: the debug folder, release folder, ipch folder, ncb file, sdf file, and all subversion files. (Use Clean.bat)