



Quick Start

(version 1.2)

Introduction

First of all , thank you for your interest in **Pathfinding Engine**.

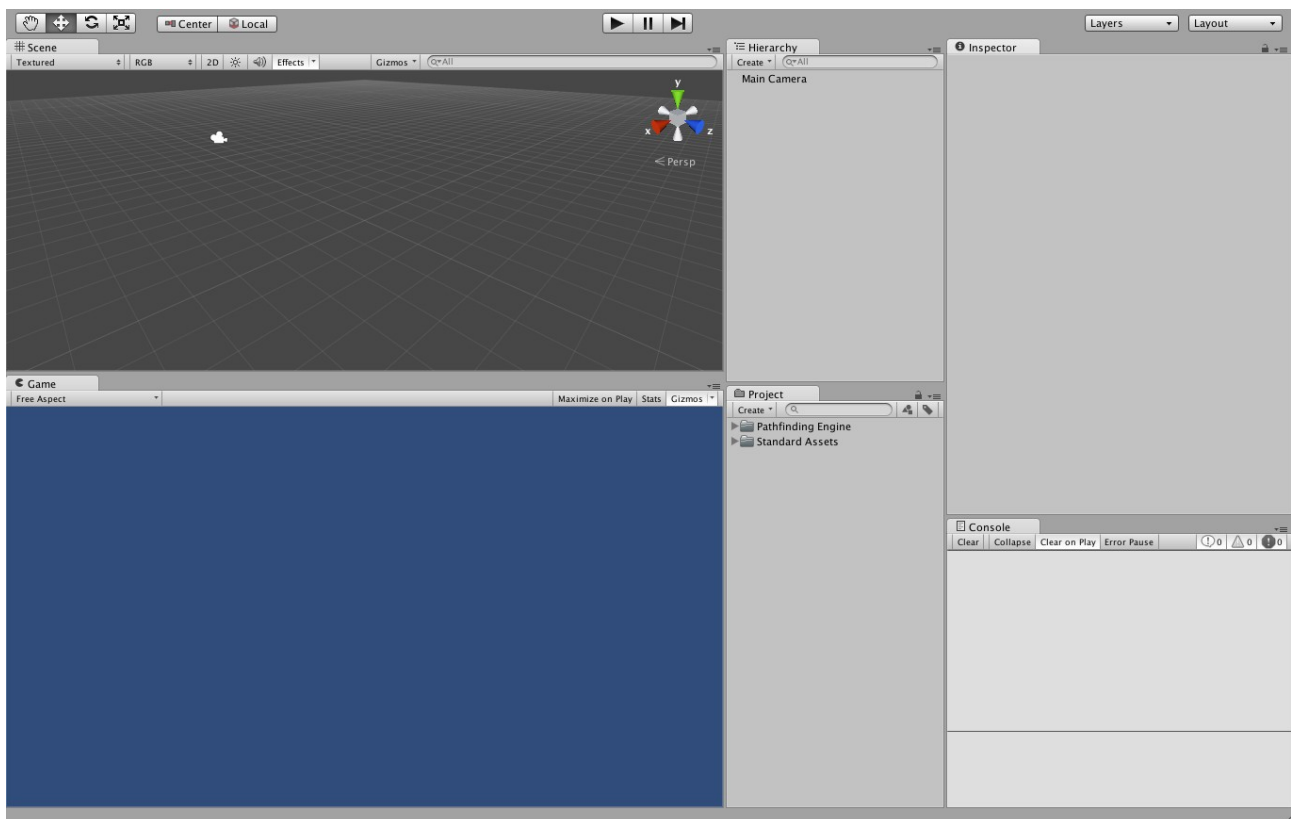
Pathfinding Engine is an easy to use grid based pathfinding solution . The source code is available if you need to adapt it for your project.

In this manual the concepts needed to use the PathfindingEngine easily be explained. For any further questions you can comment on the [forum](#) .

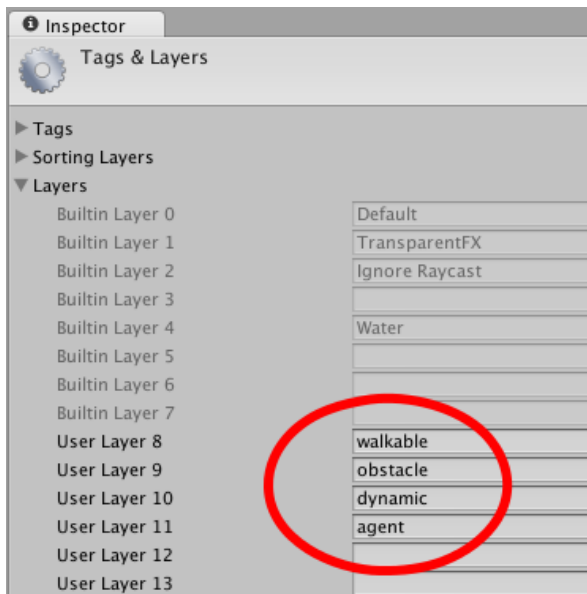
Tutorial – Creating Your First Scene

First , open Unity and create a new project.

Then, import the **Pathfinding Engine** package and create a new scene.



Now , we need to define new Unity layers (“*Edit > Project Settings > Tags and layers*”).



We will add 4 layers:

- **walkable**
- **obstacle**
- **dynamic obstacle**
- **agent**

Now it's time to add some objects on the scene.

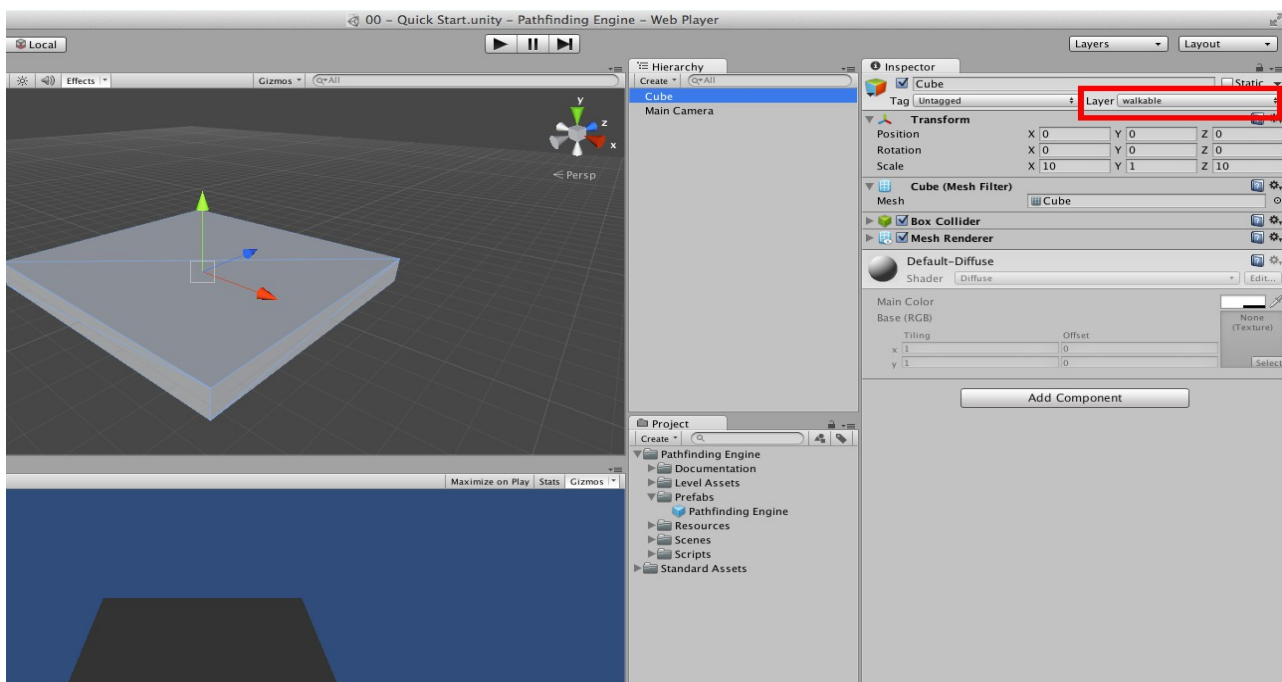
First we will create our floor : add a cube (“*GameObject > Create Other > Cube*”) and change the following parameters:

- Position = (0,0,0)
- Rotation = (0,0,0)
- Scale = (10,1,10)
- Layer = walkable

After select the camera to change:

- Position = (0,10,0)
- Rotation = (45,0,0)

The result will be as shown in the picture below.



Locate the **PathfindingEngine** prefab in the directory: “*Pathfinding Engine > Prefabs*” .

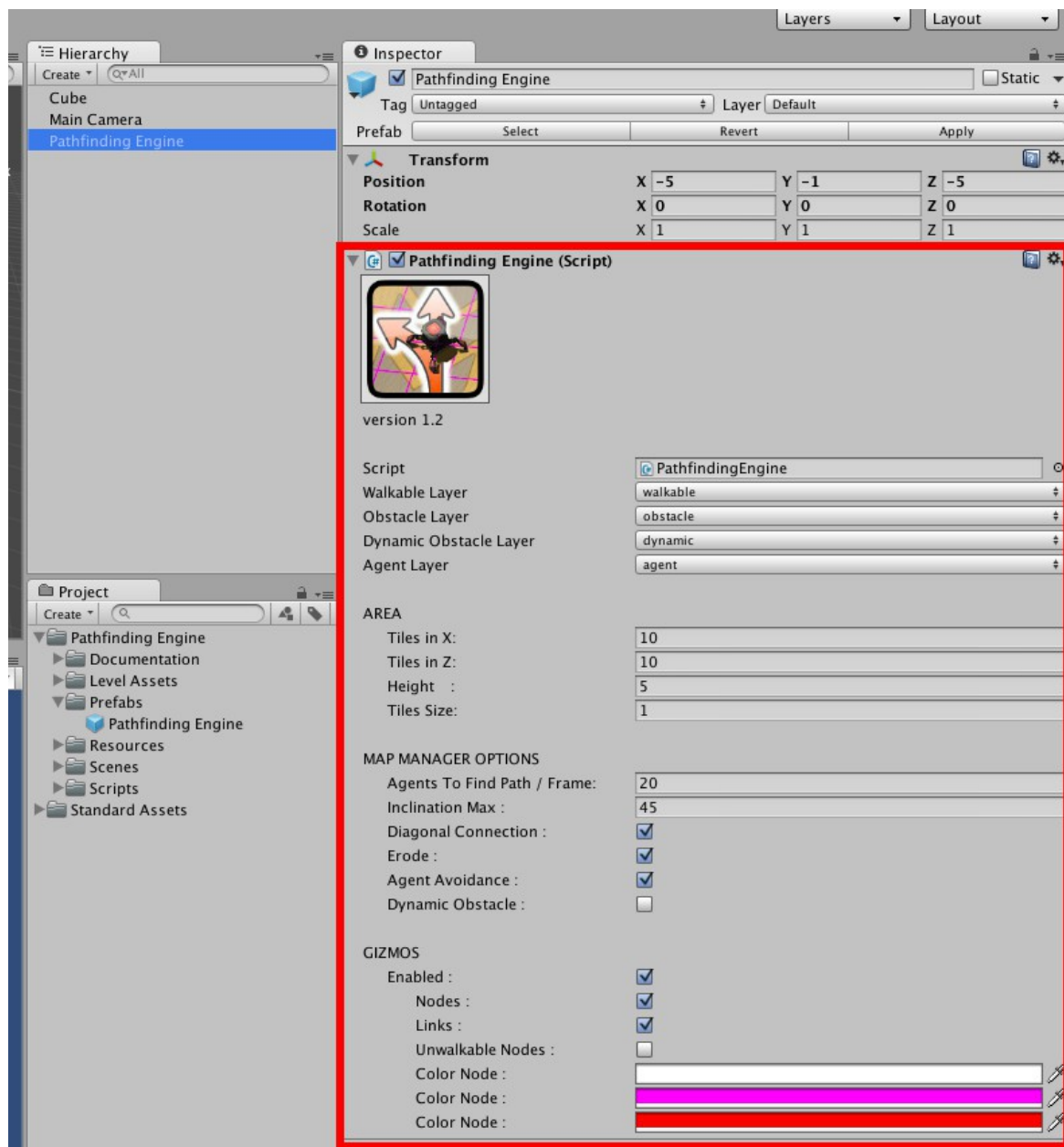
Drag it into the scene to create a new GameObject. Place the **PathfindingEngine** GameObject to position (-5,-1,-5).

If you select **PathfindingEngine** GameObject you will see the **PathfindingEngine** script.

The **PathfindingEngine** script parameters are used to change the pathfinding grid.

- Tiles in X
- Tiles in Z
- Tile size
- Height
- ...

Play with these parameters, and notice how they affect the grid. Once you have a fair understanding, set the appropriate values that provide you with a grid and floor that are roughly the same dimensions, which should look like this.



Now , we create another cube with the following parameters:

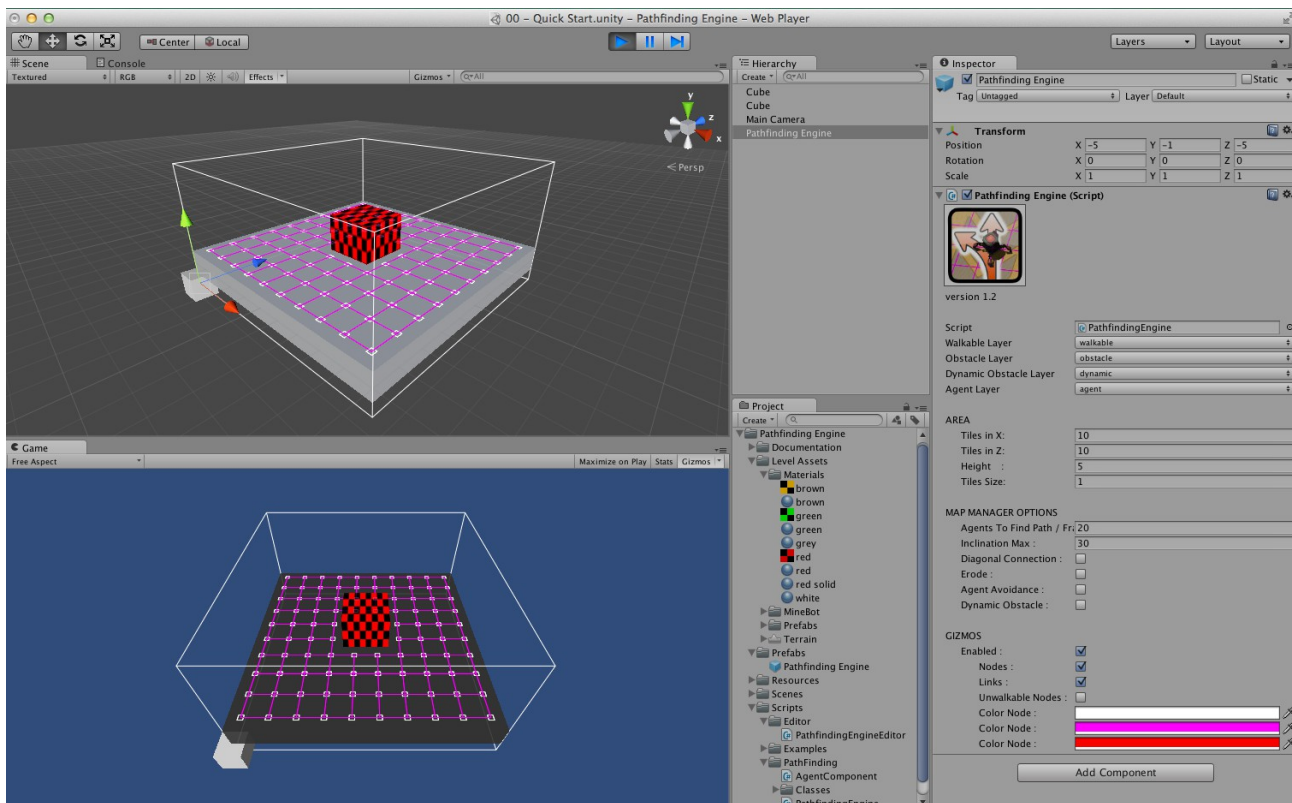
- Position = (0,1,0)
- Rotation = (0,0,0)
- Scale = (2,2,2)
- Layer = Obstacle

and added it red.material located in “*Pathfinding Engine > Level Assets > Materials*”

Unmark in **PathfindingEngine** script :

- Diagonal Connection
- Erode

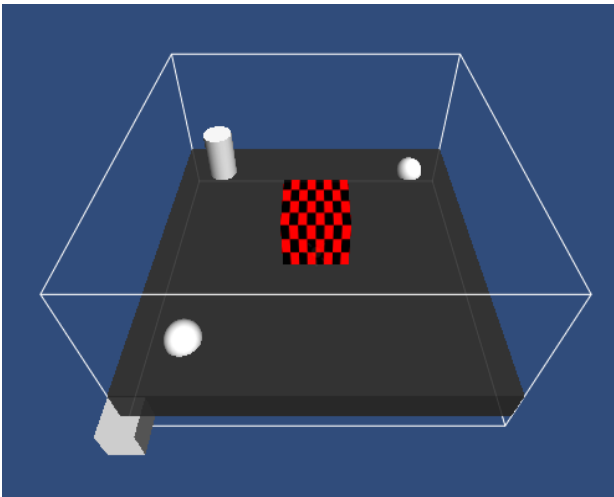
Now, if you press Play the result will be as shown in the picture below.



Congratulations, you just create your first navigation grid.

Ok. Stop the game and it's time to create an agent to move around in the world .

Create several gameobject to have the following result:



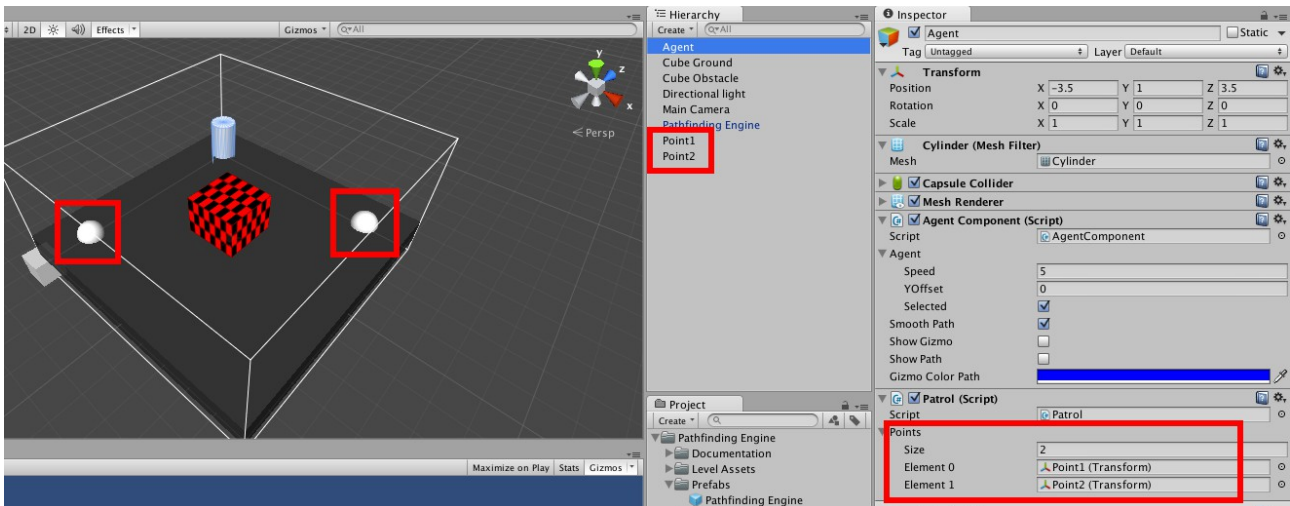
The cylinder will be our agent and the spheres will be its patrol points. Rename cylinder as “Agent” and spheres as “Point1” and “Point2” respectively.

Now go to directory “Pathfinding Engine > Scripts > Pathfinding” and add **AgentComponent script** to our agent.

And in directory “Pathfinding Engine > Scripts > Examples” add **Patrol script** to our agent too.

Create a Directional Light (“Gameobject > Create Other > Directional light”) and add grey.material located in “Pathfinding Engine > Level Assets > Materials” to our floor.

Select our agent. In Patrol script add the spheres to Points.



Now make Play and enjoy it.

