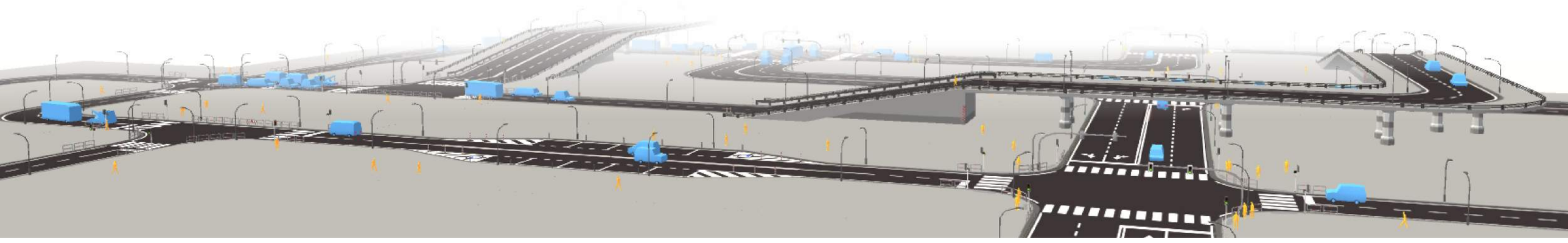
Modular Traffic



Thank you for the purchase and download.
ReadMe will guide you how this asset works.
This asset contains “Modular Roads” pack.

How to import

(Requires Unity 5 or higher + PlayMaker)

#1 - create a new 3d project in Unity (empty without any packages)

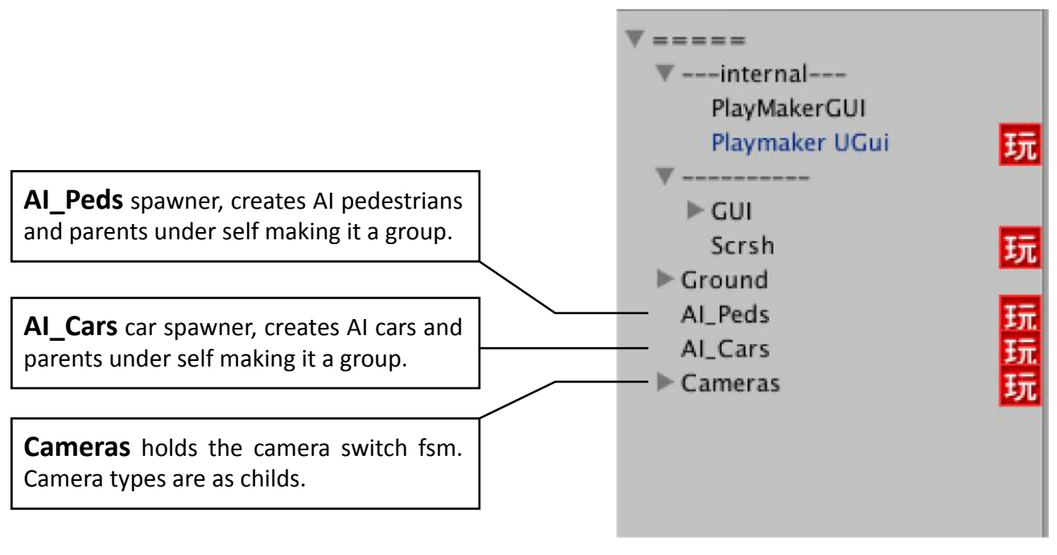
#2 - open Asset store inside Unity (Window>Asset Store)

#3 - import this asset

#4 - import Playmaker, if install did not happen, in Project window go to Assets>PlayMaker>Editor>Install double click Playmaker package

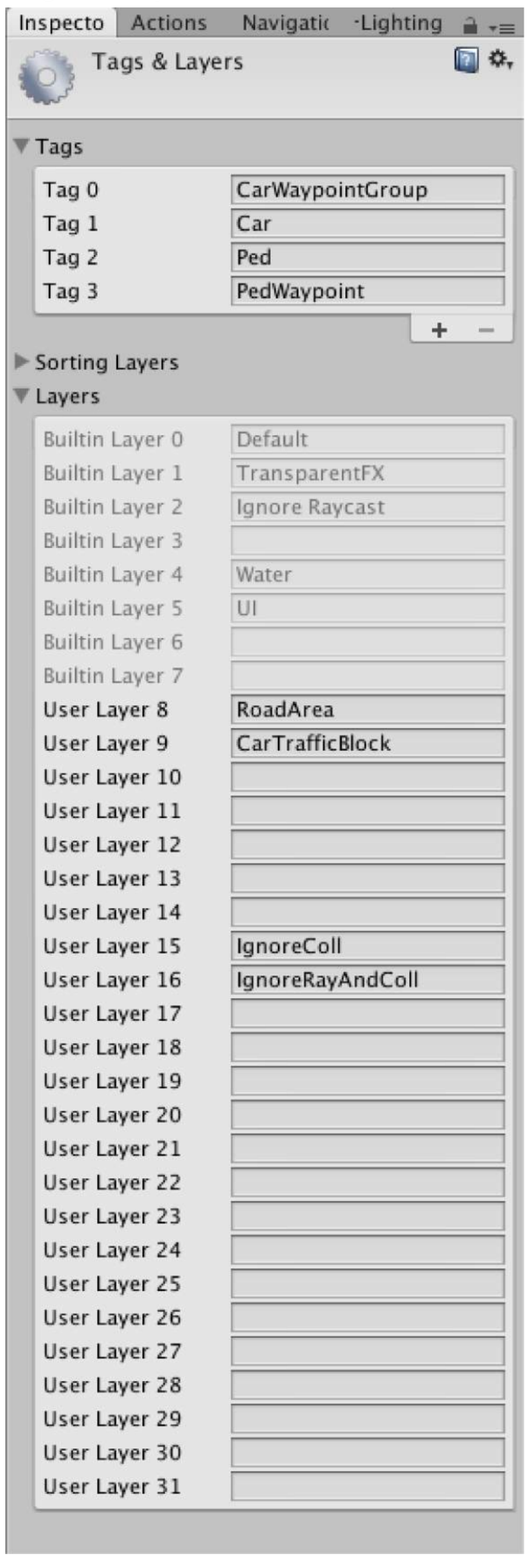
NOTE:
When importing in existing project **make a Backup** of your files!
There will be New Project Settings needed to function.

Demo Scene

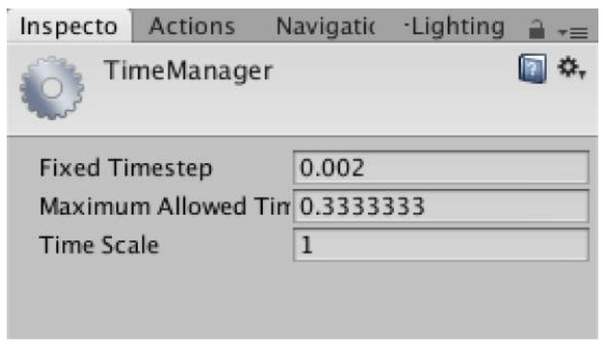


Project Settings

Tags & Layers

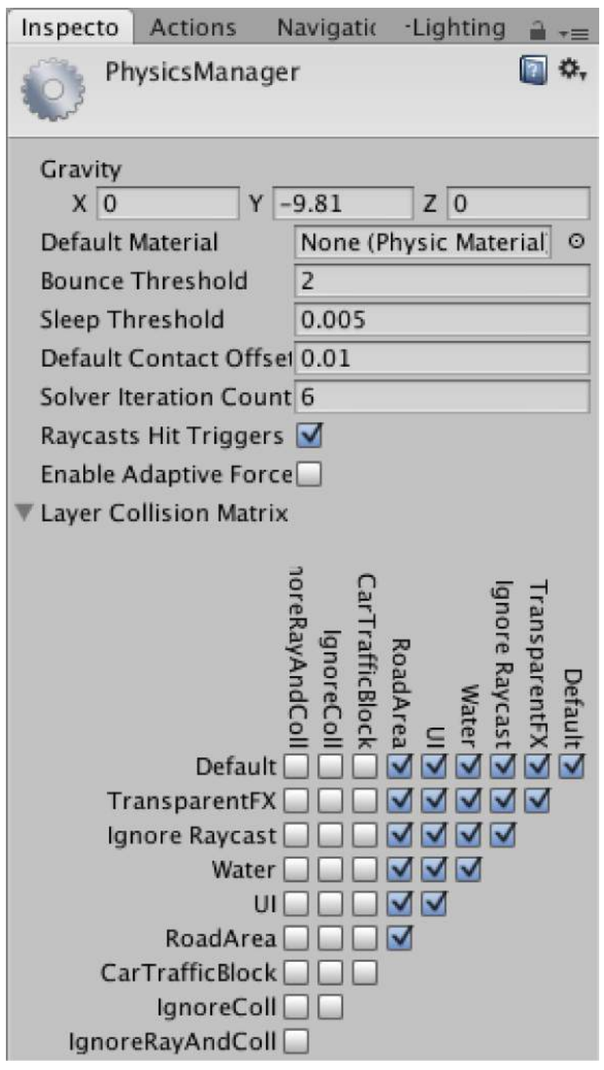


Time Manager

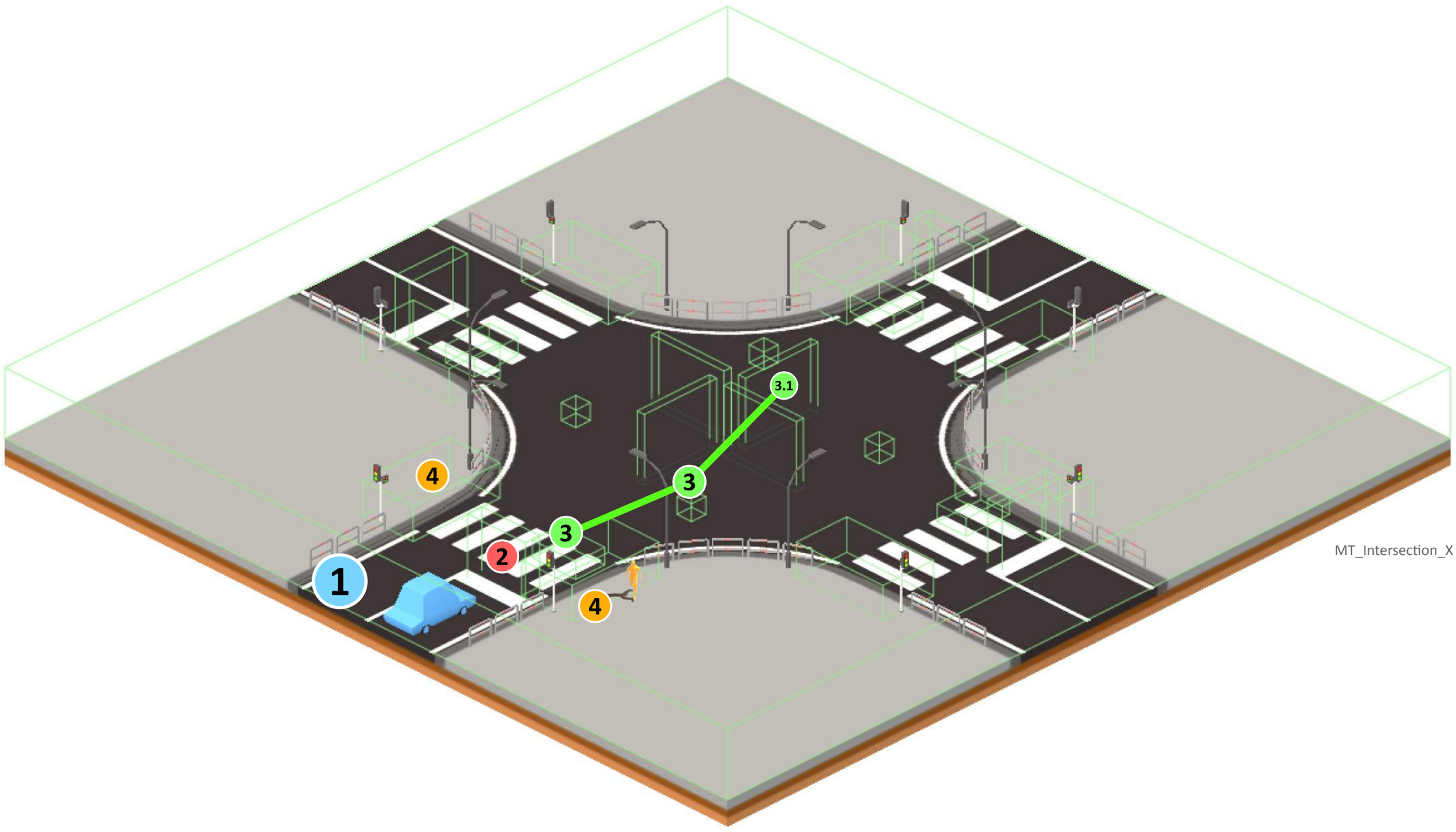


Navigation

Physics Manager

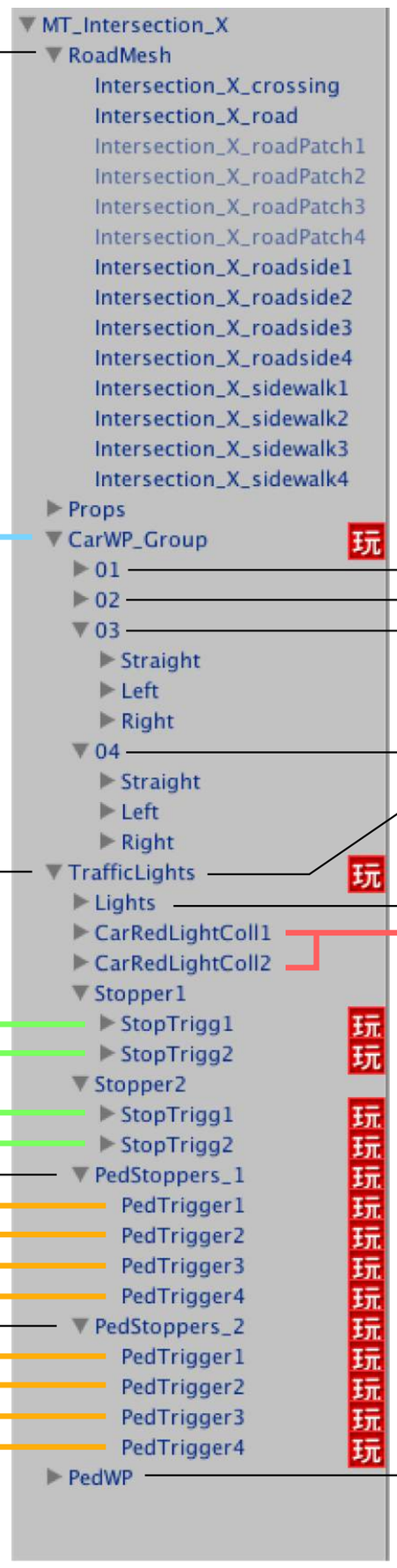


Road Prefabs



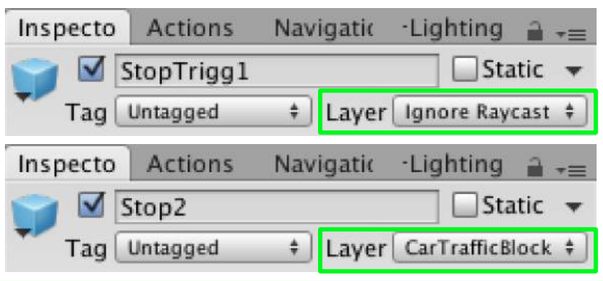
MT_Intersection_X

Road piece mesh objects are Navigation Static (without Off-mesh Links),
Roads have “Road” Nav Area with higher cost,
Sidewalks have “Walkable” Nav Area.

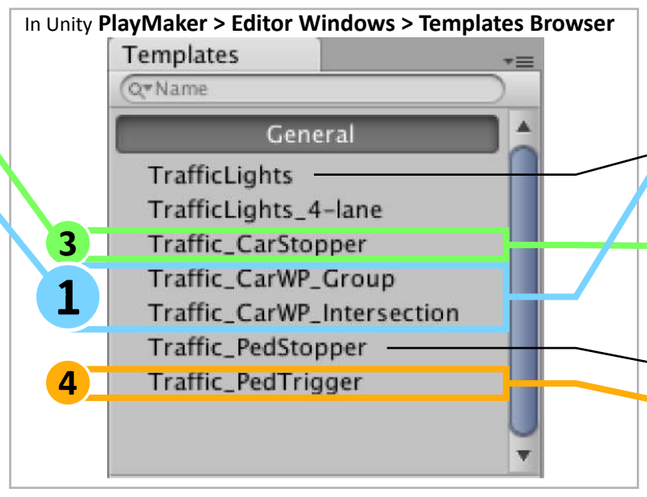


1 **CarWP_Group** have a collider as trigger, AI Cars raycasts to find next road piece by detecting this collider. There are different Fsm templates for intersections and other roads, other roads counts car amount on each lane, so you can spawn a car on empty lane.
Must have Tag “CarWaypointGroup” and Layer “RoadArea”.

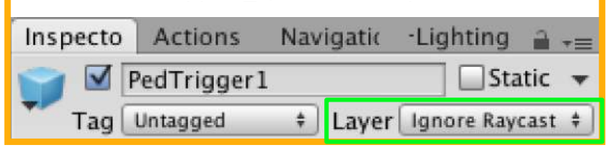
3 **StopTrigg** have two colliders as trigger, they catch cars and enables point (3.1) collider as an obstacle. Parent “Stopper1/2” are enabled by Traffic Fsm Template.
- “StopTrigg1/2” are on Layer “Ignore Raycast”
- Point (3.1) collider is on Layer “CarTrafficBlock”



In Unity **PlayMaker > Editor Windows > Templates Browser**



4 **PedTrigger** detects when a pedestrian enter a zone to cross a road. If it is red, trigger send event to a Ped to stop and adds it to a Waiting list found on “PedStoppers_1/2”. Later when it is allowed to cross “PedStoppers_1/2” activates pedestrians.



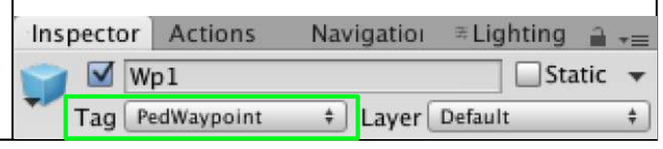
Direction groups holds childs as first points for next chosen path, names are important as AI Cars check if they should turn on indicators for Left or Right direction.
Under “Straight/Left/Right” are 2nd, 3rd or more waypoints to follow, AI will check how many there are.

TrafficLights & **TrafficLights_4-lane** are lights systems, 4 lane version is with pedestrians having all 4 green lights with all cars stopped.

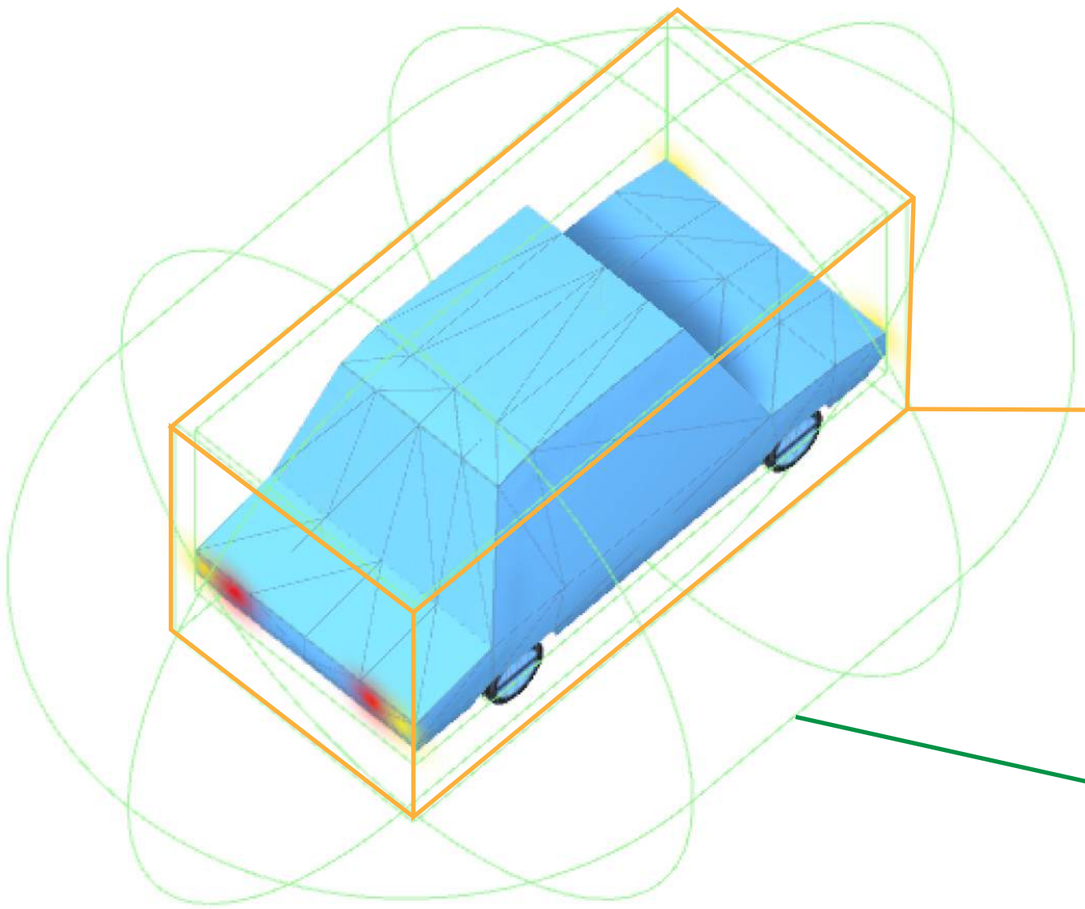
Lights holds all objects for traffic lights in groups to match correct direction.

2 Colliders for cars are enabled by TrafficLights Fsm Template.
Childs of “CarRedLightColl1 and ..2”

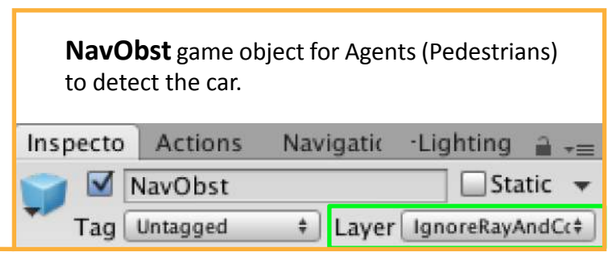
PedWP group holds waypoints for pedestrians, must be with Tag “PedWaypoint”.



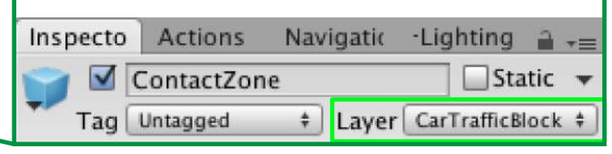
Car Prefabs



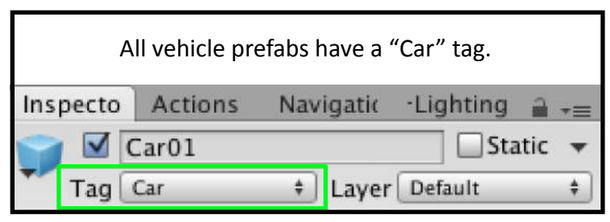
NavObst game object for Agents (Pedestrians) to detect the car.



ContactZone is a Capsule Collider so other cars could detect this car.



All vehicle prefabs have a “Car” tag.

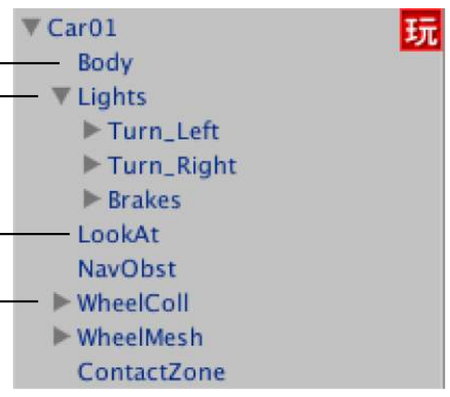


Body main mesh game object must have this name for “Distanced” Fsm to check if it’s visible to camera.

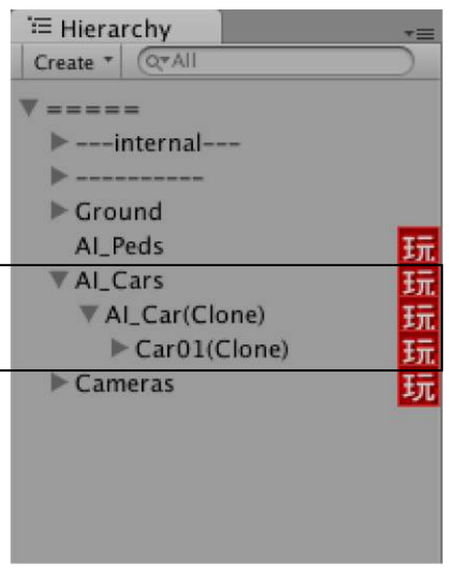
Lights holds groups of sprites to simulate brake and turn lights.

LookAt empty game object looking at the next waypoint and shoots a ray for obstacles

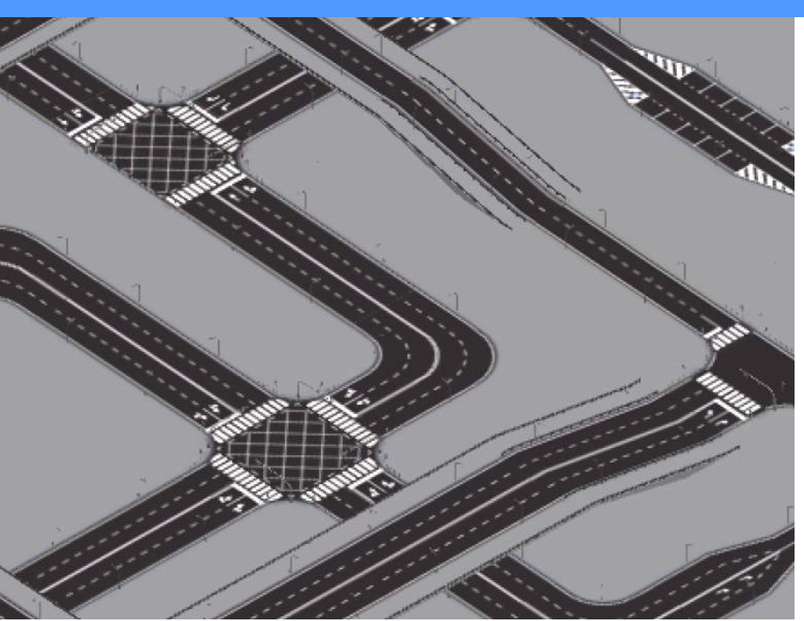
WheelColl empty game object holds all wheel collider objects. They get enabled and disabled when out of range in Kinematic mode.



Scene object “AI_Cars” spawns a child “AI_Car”(AI Controller), then this controller spawns a random car prefab to drive.



Snap road pieces together



Snap (Vertex Snapping) info from:
http://docs.unity3d.com/420/Documentation/Manual/PositioningGameObjects.html

Using vertex snapping in Unity is simple. Just follow these steps:

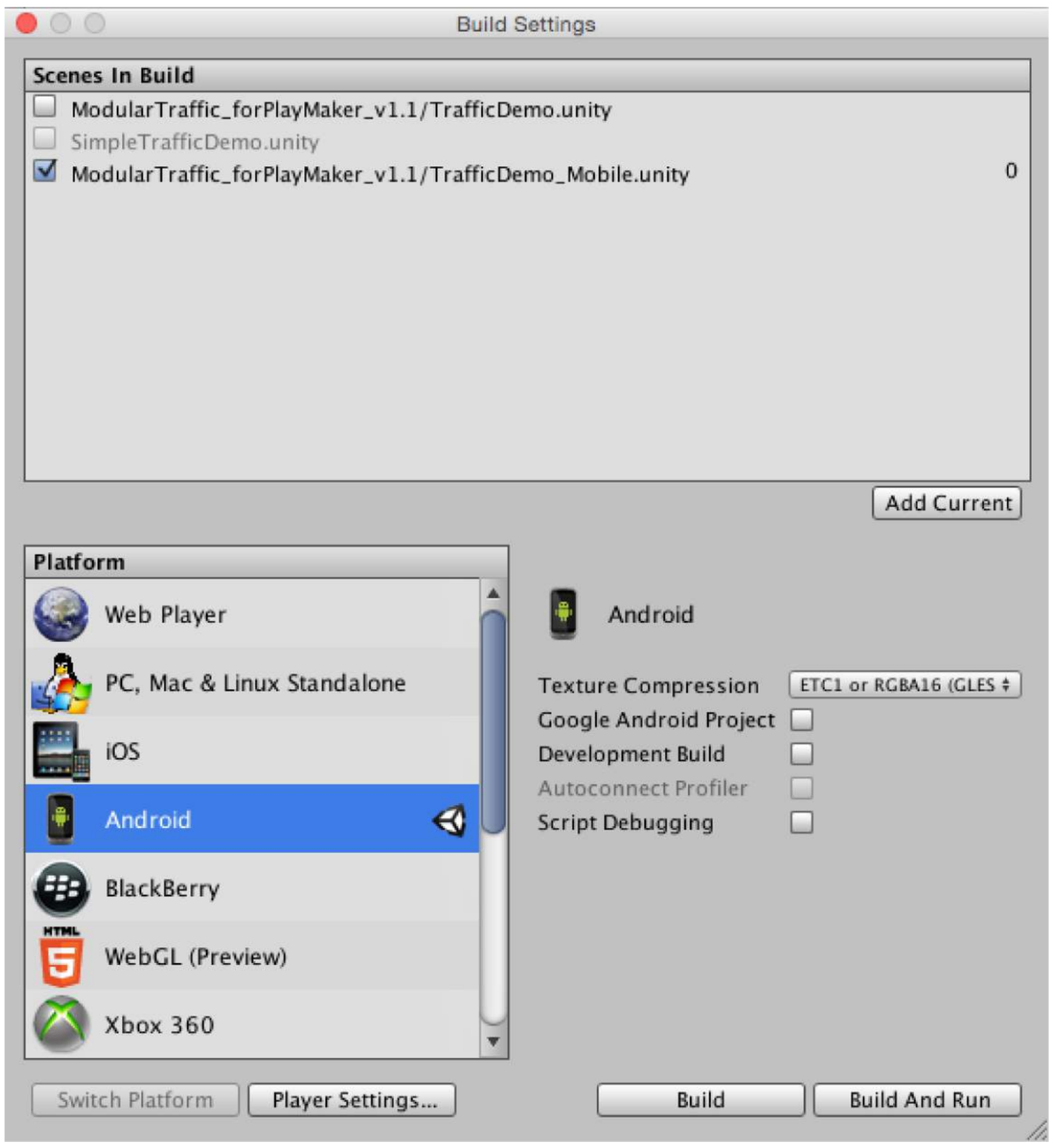
- Select the mesh you want to manipulate and make sure the Transform Tool is active.
- Press and hold the V key to activate the vertex snapping mode.
- Move your cursor over the vertex on your mesh that you want to use as the pivot point.
- Hold down the left button once your cursor is over the desired vertex and drag your mesh next to any other vertex on another mesh.
- Release your mouse button and the V key when you are happy with the results.
- Shift-V acts as a toggle of this functionality.
- You can snap vertex to vertex, vertex to surface and pivot to vertex.

If you will use NavMesh Agents, after snapping remember to Bake a new NavMesh!

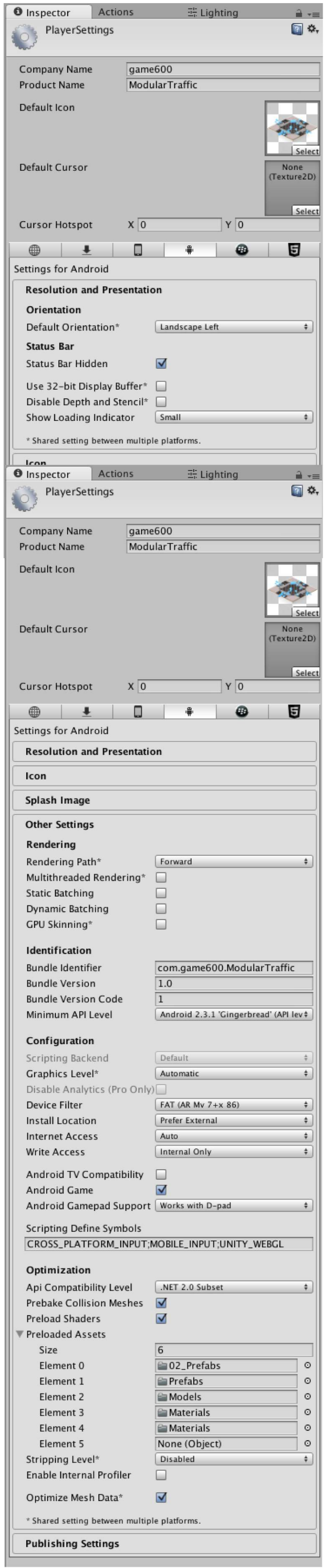
Mobile settings

These settings are used in the preview build for this asset. May differ for your game requirements.

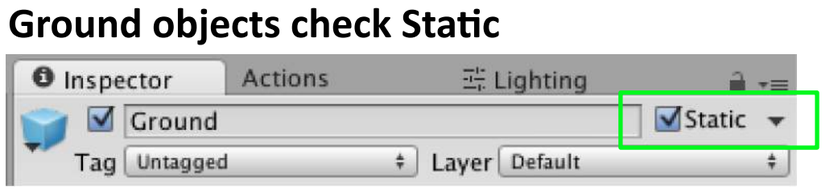
Build Settings



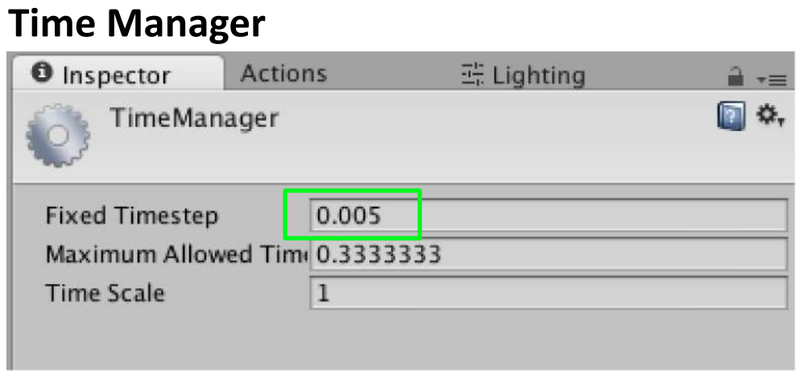
Player Settings



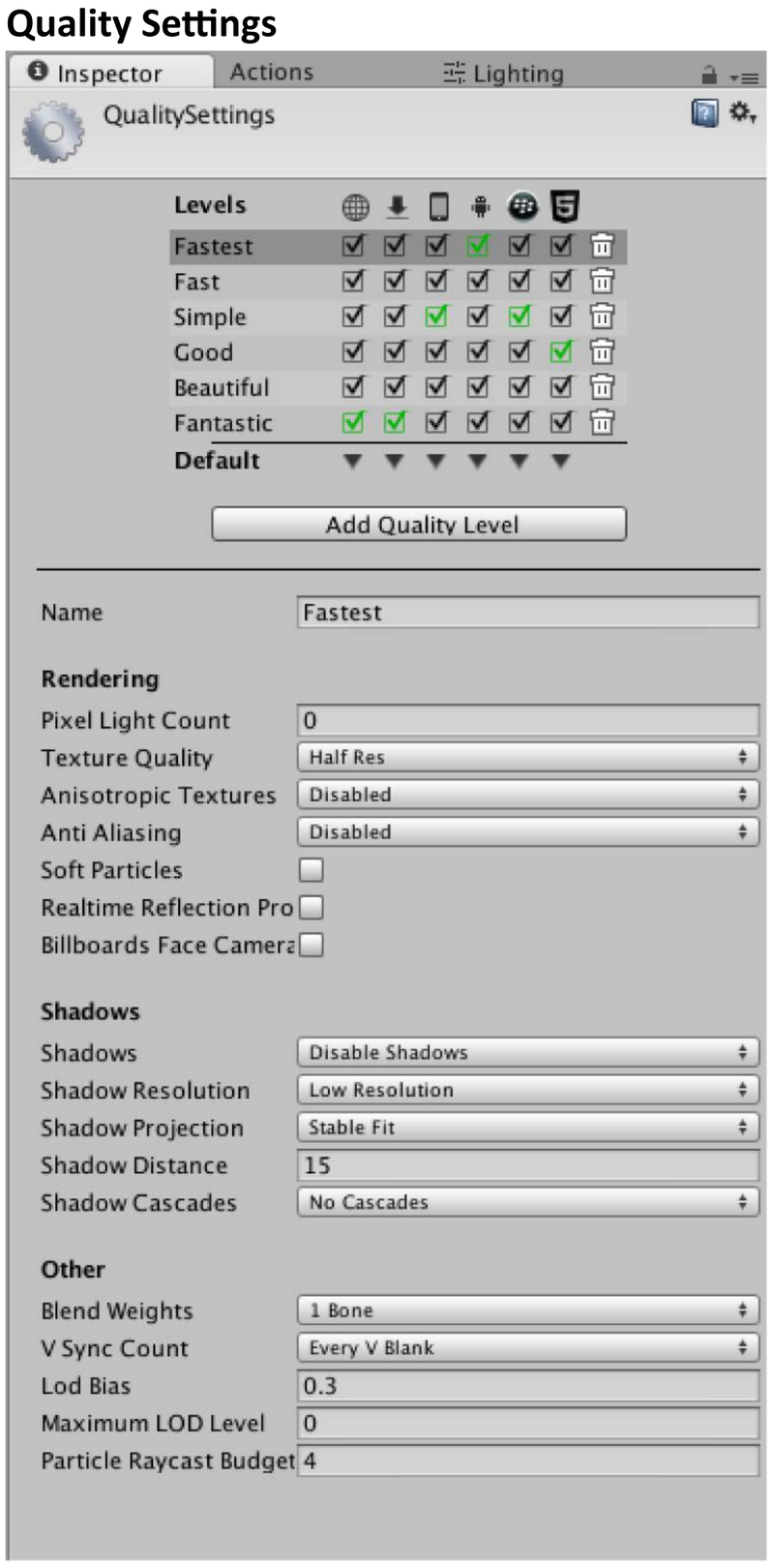
Ground objects check Static



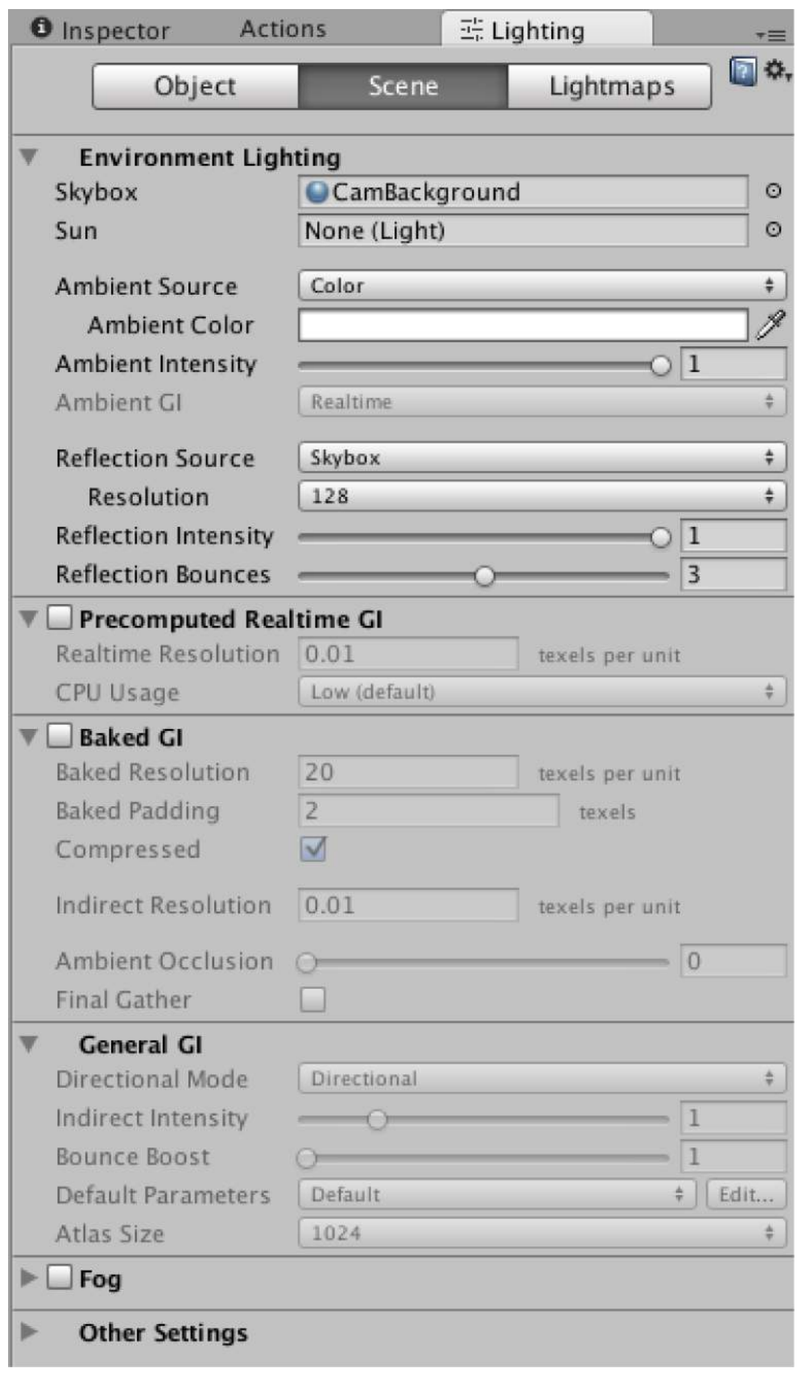
Time Manager



Quality Settings

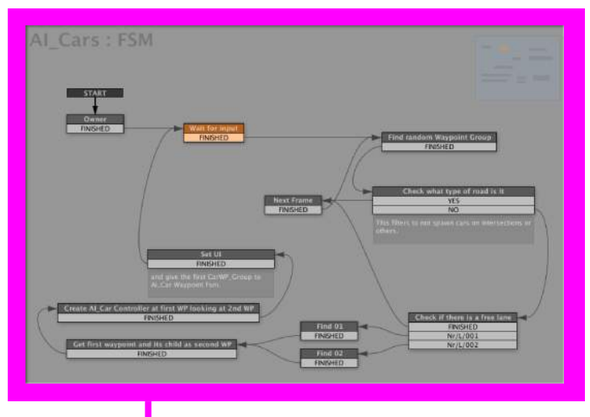


Lighting

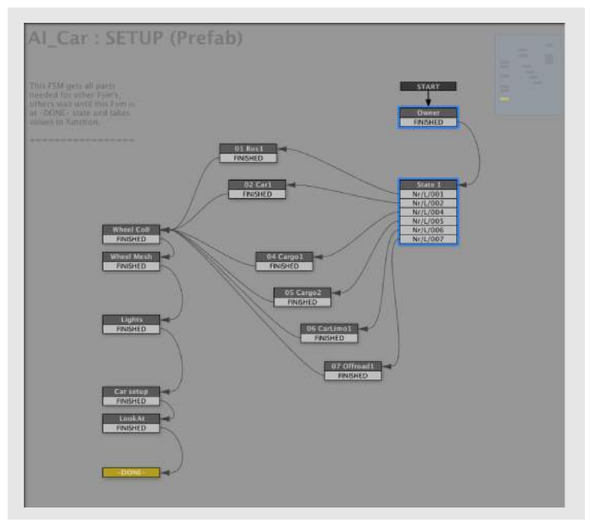


FSM Map

❶ Scene object “AI_Cars” spawns a child “AI_Car”(AI Controller), then this controller spawns a random car prefab to drive and get all needed parts in SETUP Fsm.



❷ When SETUP Fsm is -DONE- all other Fsm takes needed variables.



❸ Get a bool to check if there is a obstacle ahead.

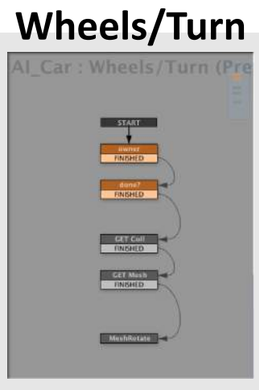
❹ Sends event to activate Brake lights when bool is true.

❺ Sends events to indicators when turning.

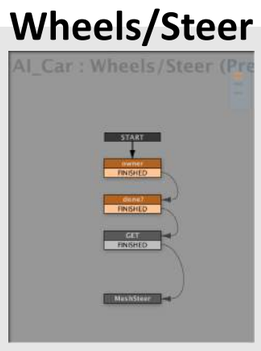
❻ Sets new variables for Kinematic mode.

❼ Sets next waypoint game object.

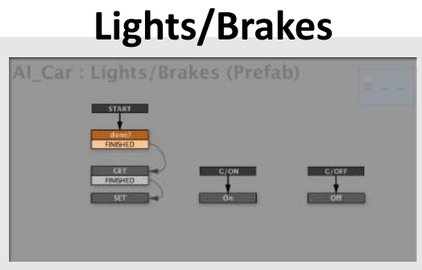
Wheels/Turn



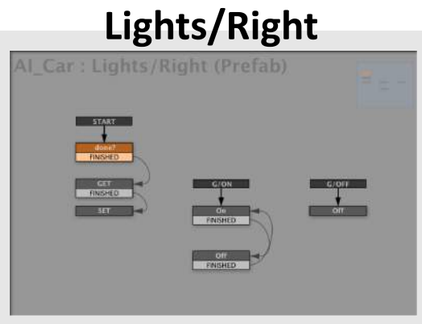
Wheels/Steer



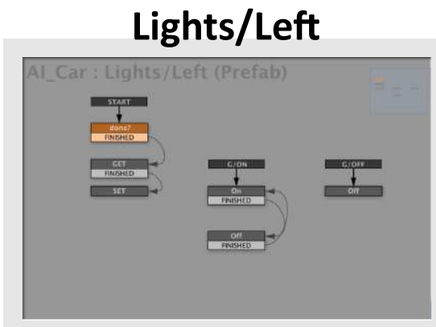
Lights/Brakes



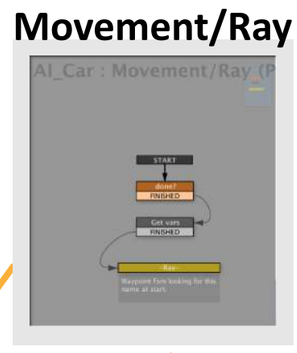
Lights/Right



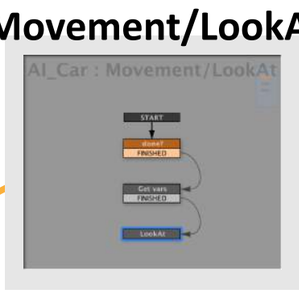
Lights/Left



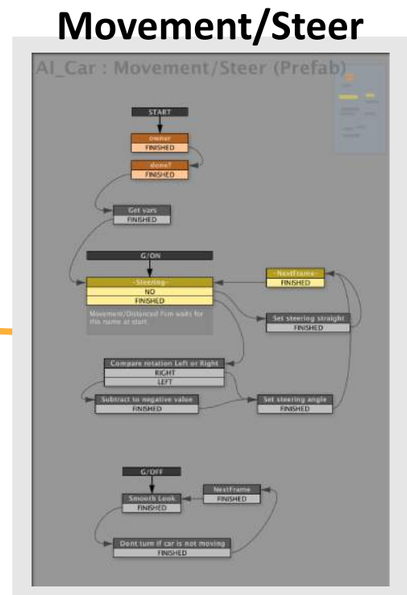
Movement/Ray



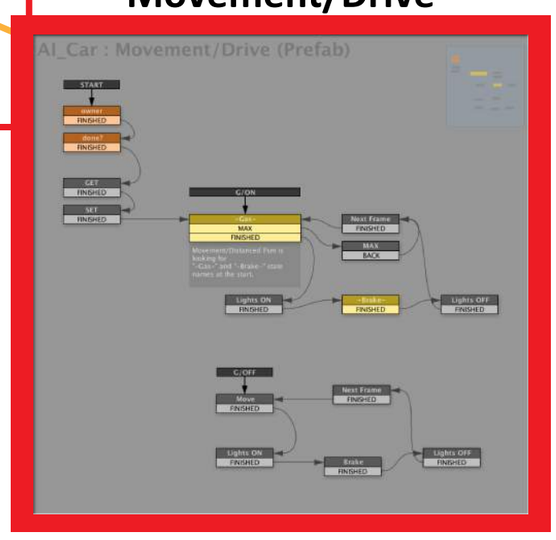
Movement/LookAt



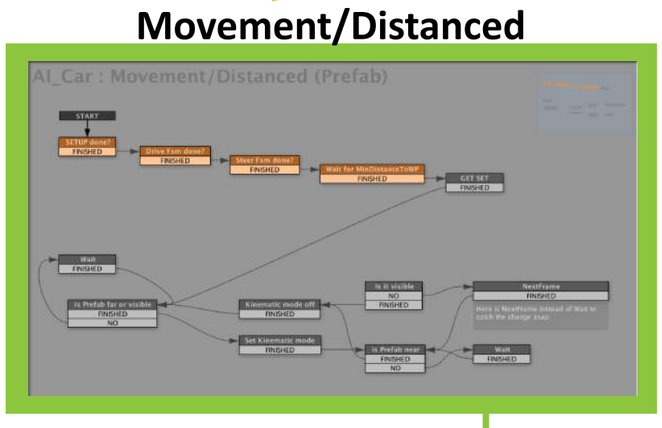
Movement/Steer



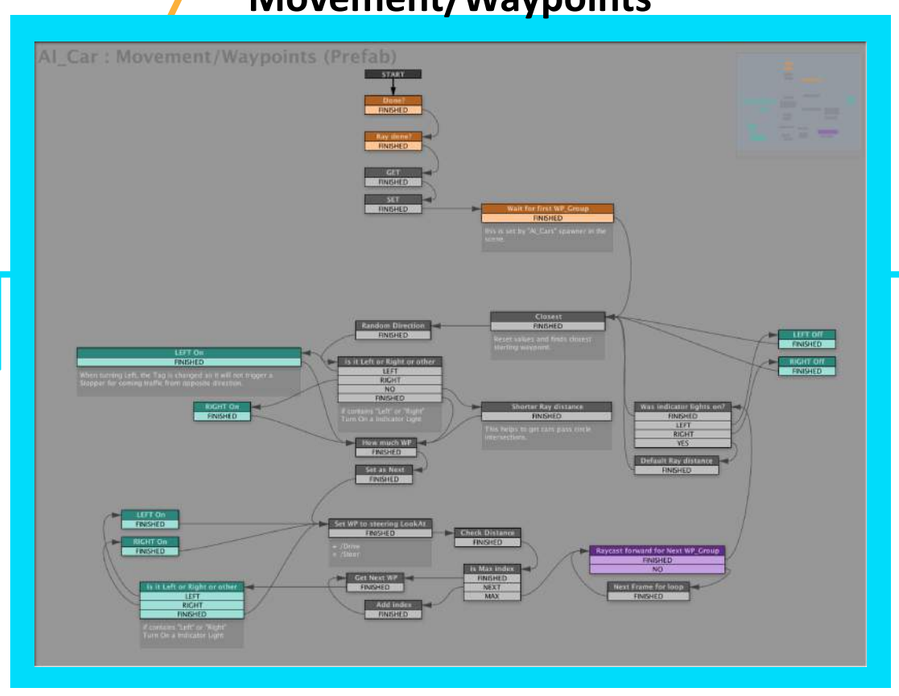
Movement/Drive



Movement/Distanced



Movement/Waypoints



SUPPORT

Any questions, contact me on
support@pamani.net
I will reply as soon as possible. My timezone GMT+3.

Consider to rate this asset,
Thanks!