## **Before Adding RCC\_AlCarController**

First, be sure your vehicle is working fine before adding an Al controller to it.

RCC\_AlCarController must be attached to the vehicle equipped with the

RCC\_CarControllerV4. Once you add the RCC\_AlCarController to the vehicle, there is no need to do anything else for the vehicle. Settings for the Al will be explained below.

## How the RCC\_AlCarController Works

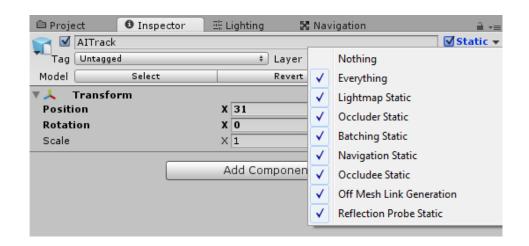
RCC\_AlCarController calculates path to the target point with throttle, brake, and steer inputs. And then, feeds the RCC\_CarControllerV4 with these calculated inputs.

#### **Creating NavMesh for Scene**

Al is using Unity's Nav Mesh for calculating the path. Therefore, you must bake and create navigation mesh for your scene first. Al won't be able to find the correct path if your scene doesn't contain a proper navigation mesh.

#### **How to Create NavMesh**

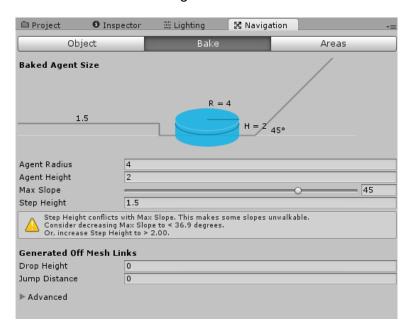
Select your all static objects (including roads too). And set them "Static".



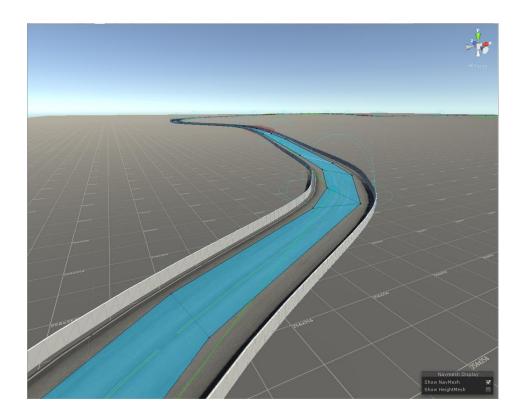
When all your static objects are marked as "Static", then you can bake your navigation mesh. Open the "Navigation" window from the Window → Navigation.



#### Default settings should be like this.

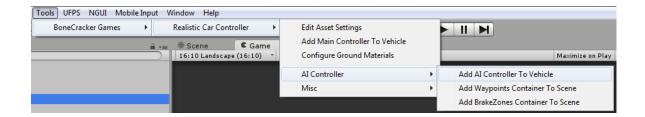


And then, click the bake button and bake your scene. Check your blue navigation mesh. Al will use this mesh for pathfinding. It should be like this;



# **Adding Al Controller to Vehicle**

First, build and configurate your vehicle. Be sure it's working properly. When everything works fine and results are as expected, you can add RCC\_AlCarController to your vehicle by "Tools \rightarrow BoneCracker Games \rightarrow RCC \rightarrow Al Controller \rightarrow Add Al Controller to Vehicle".

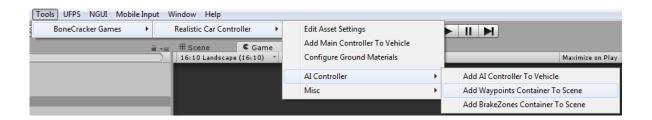


This will add "RCC\_AlCarController" to the root of your vehicle.

▼ 📵 🗹 RCCAI Car Controller (Script)		<u>□</u> \$,
RGG	AI Controller	
Obstacle Layers	Everything	<b>‡</b>
Wide Ray Distance	20	
Tight Ray Distance	20	
Side Ray Distance	3	
Limit Speed		
Smooth Steering	✓	
Next Waypoint Pass Radius	40	
Current Waypoint:	0	
Laps:	0	
Total Waypoints Passed:	0	
Ignoring Waypoint Due To Unexp	€ False	
	Add Component	

Vehicle will use "Nav Mesh Agent" for road path based on your waypoints and will use raycasts for dynamic objects. If you have specified gameobjects to ignore raycasts, you can select specific layers from the obstacle layers.

# **Adding Waypoints Container to Scene**



Waypoints are used for the path. You can create your own path for AI with these waypoints. All waypoints are collected by the container. You need to create Waypoints Container in your scene to create waypoints. You can create it from the Tools → BCG → RCC → AI Controller → Add Waypoints Container to Scene. This will add "RCC AI Waypoints Container" to your scene. Select the waypoint container in your scene. Simply hold Shift and left click on your road to create a new waypoint. Create your path with them.

▼ (# RCCAI Waypoints Container (Script)		<u>□</u> \$,
Delete Waypoints		
▼ Waypoints		
Size	24	
Element 0	↓0 (Transform)	0
Element 1	↓1 (Transform)	0
Element 2	↓2 (Transform)	0
Element 3	↓3 (Transform)	0
Element 4	↓4 (Transform)	0
Element 5	↓5 (Transform)	0
Element 6	↓6 (Transform)	0
Element 7	↓7 (Transform)	0
Element 8	↓8 (Transform)	0
Element 9	↓9 (Transform)	0
Element 10	↓10 (Transform)	0
Element 11	↓11 (Transform)	0
Element 12	↓12 (Transform)	0
Element 13	↓13 (Transform)	0
Element 14	↓14 (Transform)	0
Element 15	↓15 (Transform)	0
Element 16	↓16 (Transform)	0
Element 17	↓17 (Transform)	0
Element 18	↓18 (Transform)	0
Element 19	↓19 (Transform)	0
Element 20	↓20 (Transform)	0
Element 21	↓21 (Transform)	0
Element 22	↓22 (Transform)	0
Element 23	↓23 (Transform)	0
Create Waypoints By	Shift + Left Mouse Button On Your Road	

 $\underline{\textbf{Note}} : \mbox{Do not use } \textbf{CTRL} + \textbf{D} \mbox{ for duplicating any waypoint.}$ 

Each waypoint has a target speed. The vehicle will adapt its speed to this target speed when radius.

**Note**: Be sure Al vehicles are close enough to the nav mesh. If it's too far away from it, path finding won't work.

# **Mode (Follow Waypoints)**

Follow all waypoints in the selected container. If your scene has multiple waypoint containers, you can select specific one for the vehicle. Once the vehicle completes the lap, it will stop if option is enabled. Otherwise, it will follow the waypoints again.

# **Mode (Follow Target)**

Follows target gameobject without crashing to it. It will stop or start to follow at certain distances. Distances can be adjusted directly from the inspector panel.

# **Mode (Chase Target)**

Chases target gameobject. Crashes to it and it won't stop at certain distance.