

Highway Racer Complete Project

By BoneCracker Games

Contents

Package Contains.....	3
Video Tutorial Series For Creating & Configuring Player Cars, Traffic Cars, New Levels, Edit Prices, etc... ..	3
Leading Features	4
Before Releasing Your Game And About Intellectual Property Violating	5
Before Importing The Package	5
After Importing The Package	6
Updating The Package	7
Highway Racer Properties Panel	8
Configure Player Cars	10
Configure Upgradable Wheels	11
Main Menu Scene Scripts	12
HR_MainMenuHandler.....	12
HR_ModHandler.....	13
GamePlay Scenes	13
HR_GamePlayHandler	13
HR_TrafficPooling.....	14
HR_RoadPooling.....	14

Traffic Lines	15
GamePlay and GameOver UI Canvases	16
.....	16
Adding / Editing Player Cars	17
Adding / Editing Scenes	17
Optimization On Levels	18
Local Saved Files.....	19
API.....	19
Contact.....	20

First of all, thank you for purchasing Highway Racer! This documentation covers how to add / change / edit player cars, traffic cars, levels, roads, scores, multipliers, modes, menus, etc...

Package Contains

- 13 Player Vehicles
- 5 Traffic Vehicles
- 1 Main Menu, and 3 Gameplay Levels
- City environment
- User Friendly Editor Scripts and Editor Windows for Create & Use Your Own Content
- All Necessary Scripts, Models, Materials, Textures, Sound FX, etc...

Video Tutorial Series For Creating & Configuring Player Cars, Traffic Cars, New Levels, Edit Prices, etc...

You can access this tutorial series from [this](#) link. I'll keep the list updated.

- Soundtracks used in webdemo are not included in the package. All soundtracks used in demo are licensed.

Leading Features

- Powered by Latest Realistic Car Controller V3.53f
- Tested and ready to deploy for PC, Mac, Linux, Android, iOS, WebGL
- Four game modes
- Pooling lightmapped roads
- Very low count of drawcalls, triangles (Max DC 90, Max Tri 30k) for mobile devices
- Optimized traffic cars without wheelcolliders
- Lane switching traffic cars
- Variable traffic amount
- In-game currency
- Unlockable Cars
- Upgradable Stats
- Attachable spoilers, decals, neons, sirens, NOS.
- Upgradable Cars (You can edit cars, prices, their upgrades from editor easily)
- All systems are related with editor scripts
- Clean code, written in C#
- Easy to use, highly customizable
- Highly detailed and updated online documentation
- Guaranteed fast support

Please don't hesitate to writing a review to us. For support tickets, please contact me via email before writing a review. I'll do my best asap.

Before Releasing Your Game And About Intellectual Property Violating

- Do not use same screenshots in the Asset Store page.
- Do not use the same description.
- Do not use the same logo provided with package.
- Use unique game name.
- Change some materials, textures at least.

Before Importing The Package

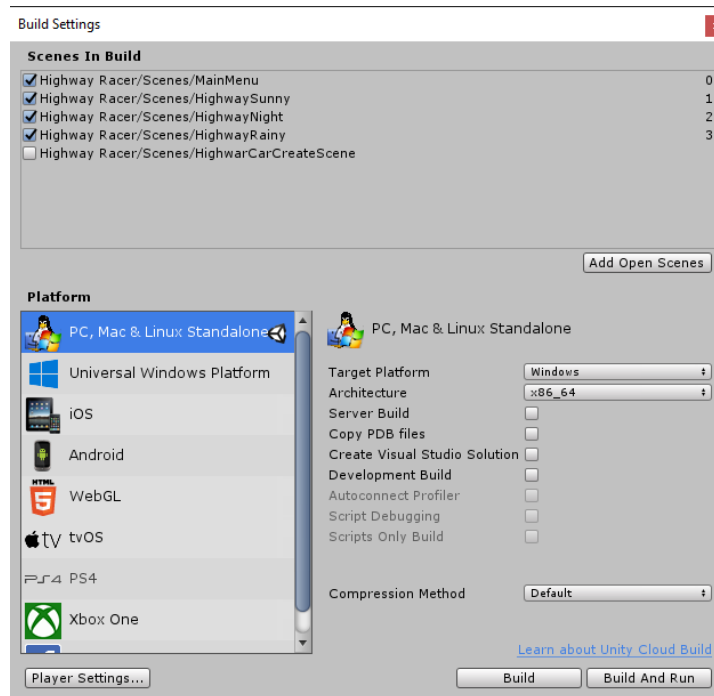
This project was made in [Unity 2020.3.21f1](#). Be sure your editor version is [Unity 2020.3.21f1](#) at least. My advice would be using the long-term ([LTS](#)) latest Unity versions. Not beta, or the latest version.

Be sure your project is a new fresh project. Package includes "[ProjectSettings](#)", and overwrites if your project has own ProjectSettings.

After Importing The Package

Check your console to see if you have any red errors. If you get any unreferenced script error, this means your import was corrupted. Delete everything and reimport the package if this happens (Usually %99 your import will success).

Go to **File → Build Settings** and check out your build settings. Your scenes, build target, player settings. All default package settings are like this;



Hit play and try the game. Every modes, every cars, every upgrades. Congrats, your import is fine and all ready to go!

Updating The Package

Make sure you have backed up your entire project before updating. Once you backed up, follow the steps safely.

1. Keep your own models, prefabs, scriptableobjects, scenes outside from Highway Racer folder.
2. Package includes overwriting permission to Project Settings. This means, importing will overwrite your Tags&Layers, Input, Time, and all other project settings. If you don't want to overwrite, do not select Project Settings folder on importing screen. (See the screenshot_2)
3. Delete entire Highway Racer folder.
4. Import the latest Highway Racer to your project. Don't let the importer updates your own assets while importing.
5. After importing, check out the console if you get errors.
6. Move your own assets to corresponding folders in Highway Racer folder.
7. New UICanvas on main menu scene is using additional features like buy nos or buy turbo kit. If your UICanvas is old and want to change it with new one, import the Highway Racer again. But only select "**MenuCanvas.prefab**" on import screen. This will change UI canvas on your main menu scene with new one.
8. If you want to change gameplay and gamover UI canvases too, do the same steps. Import latest Highway Racer. But only select "**HR_Gameplay Canvas.prefab**" and "HR_Gameover Canvas.prefab".

Highway Racer Properties Panel

All global settings are related with this one single editor script. You can access it from [Highway Racer → General Settings](#) from top bar menu.

ProjectInspectorLightingAPPWindow

HR_HighwayRacerProperties

Open

Highway Racer Properties Editor Window

This editor will keep update necessary .asset files in your project. Don't change directory of the "Resources/HR_Assets".

General Settings

Min Speed For Gain Score

80

Min Speed For High Speed

100

Min Col For Game Over

20

Default Config At First Initialization

! Default Settings When There Are No Any Saved PlayerPrefs Data. At First Init Only On Target Platform.

Default Body Color

☐ Bloom Enabled By Default

☒ HQ Lights Enabled By Default

☒ Flares Enabled By Default

Score Multipliers

Total Distance MP

120

Total Near Miss MP

10

Total Over Speed MP

5

Total Opposite Direction MP

5

Sound Effects

Main Menu Soundtracks

Size

1

Element 0

Speed Racer Full

GamePlay Soundtracks

Size

4

Element 0

Bad Habit Loop

Element 1

Basic Motion Loop

Element 2

On The Move Loop

Element 3

Speed Racer Loop

Button Click SFX

ButtonClick

Near Miss SFX

NearMiss

Label Slide SFX

LabelSlide

Counting Points SFX

Counting

Reset To Defaults

Delete All PlayerPrefs

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Element 2	On The Move Loop	○
Element 3	Speed Racer Loop	○
Button Click SFX	ButtonClick	○
Near Miss SFX	NearMiss	○
Label Slide SFX	LabelSlide	○
Counting Points SFX	Counting	○
Bomb Timer Beep SFX	BombBeep	○
Police Siren SFX	PoliceHorn	○
Horn SFX	CarHorn	○

Select Main Controller Type

Switch Controller from RCC Settings

☒ 1M Money For Testing

Selectable Player Cars

Player Car 0	PlayerCar1	○
Player Car 1	PlayerCar2	○
Player Car 2	PlayerCar3	○
Player Car 3	Coupe	○
Player Car 4	PlayerCar4	○
Player Car 5	Pickup	○
Player Car 6	Jeep	○
Player Car 7	PlayerCar5	○

Configure Player Cars

Upgradable Wheels

Upgradable Wheels 0	Wheel_1	○
Upgradable Wheels 1	Wheel_2	○
Upgradable Wheels 2	Wheel_3	○

Configure Upgradable Wheels

Attachable Siren	HR_Siren Lights	○
Explosion Particle Effects	HR_Explosion	○
Layer Of The Traffic Cars	TrafficCar	↑

Reset To Defaults

Delete All PlayerPrefs

Open PDF Documentation

Highway Racer V3.5
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As you can see, you can edit very global settings here. Minimum speed for gaining score, default settings, score multipliers, main menu and game play soundtracks, button sfx, nearmiss sfx, label slide sfx, rides, upgrades, their prices, traffic cars, etc... You can edit the package whatever you like here. You don't need to edit scripts for making changes.

You can enable 1M Money for testing purposes. Don't forget to disable it when you are about to publish your game.

Configure Player Cars

Click “[Configure Player Cars](#)” for editing current player cars, and their prices. You can easily edit their maximum speeds, engine torques, and maximum upgradable values. Speed, handling, braking, engine torque is the default values. Variables with “**Max**” defines the maximum upgradable value by the player.



You can access “[Configure Player Cars](#)” from the [General Settings](#), or from the toolbar.

The screenshot shows the 'HR_PlayerCars' editor window. It contains a 'Player Cars Editor' section with a warning: 'This editor will keep update necessary .asset files in your project. Don't change directory of the "Resources/HR_Assets".' Below this is a 'Player Cars' section with four car configurations:

Car Name	Player Car Prefa	Speed	Handling	Braking	Max Speed	Max Handling	Max Braking	Engine Torque	Price	Locked
PlayerCar1	Sport	200	4	4	220	5	5	350	0	Unlocked
PlayerCar2	Tuned	240	4.5	4	260	5.75	5.25	400	25000	Unlocked
PlayerCar3	Muscle	240	5	5	270	6.5	6.5	450	35000	Unlocked
Coupe	Coupe	260	5.5	6	290	7.25	7.75	400	50000	Unlocked
PlayerCar4	Van	180	6	5						




Configure Upgradable Wheels




Click “[Configure Upgradable Wheels](#)” for editing current upgradable wheels. And their prices. They are just models. Just be sure your models have same sizes. Their pivots and axes must be correct just like other wheels provided with package.




 HR_Wheels 


Wheels Editor
This editor will keep update necessary .asset files in your project. Don't change directory of the "Resources/HR_Assets".


Wheels

Wheel_1
Wheel Prefab  Wheel_1 
☒ Unlocked Price 

Wheel_2
Wheel Prefab  Wheel_2 
☐ Unlocked Price 

Wheel_3
Wheel Prefab  Wheel_3 
☐ Unlocked Price 





Highway RacerV3.5
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Main Menu Scene Scripts

Main Menu must contains [HR_MainMenuHandler](#) and [HR_ModHandler](#) scripts.

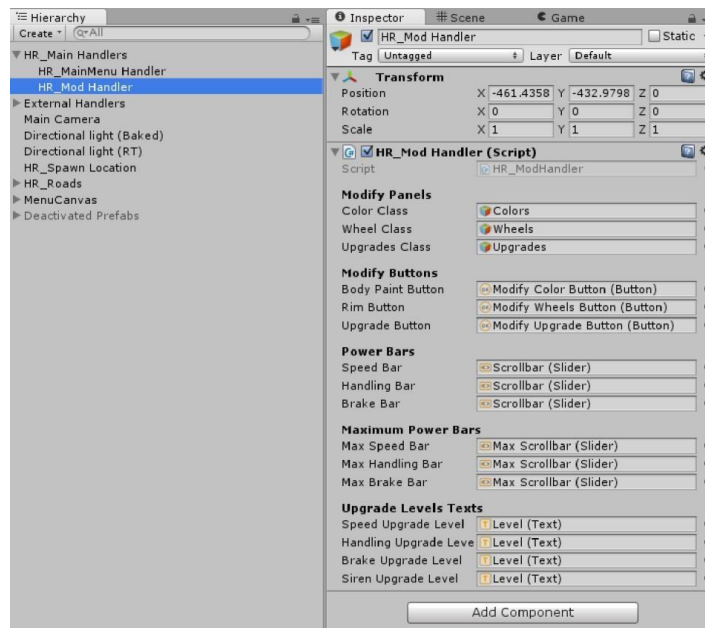
HR_MainMenuHandler

Manages UI menus, options, interactions, spawning player car, switching them, purchasing new cars, etc...



HR_ModHandler

Manages the modding section, UI buttons for modification, stats slider bars, texts, etc. Receives events from the modder buttons, and sends them to HR_ModApplier attached to the player car.

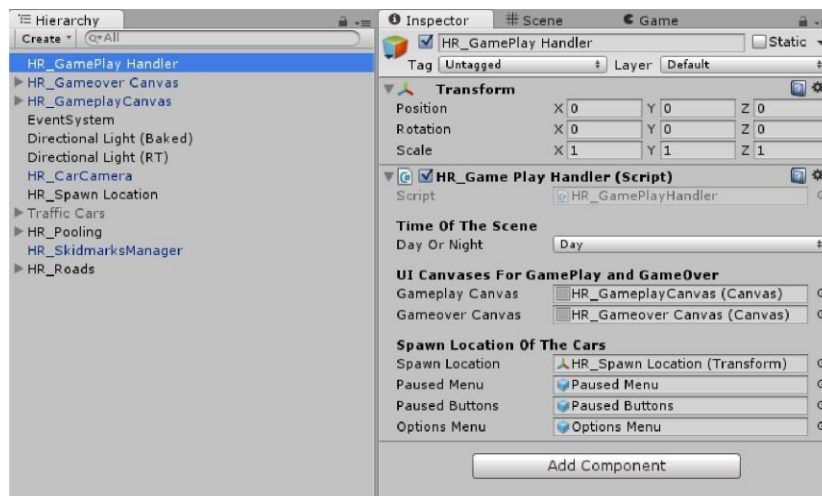


GamePlay Scenes

All gameplay scenes must contain [HR_GameplayHandler](#), [HR_TrafficPooling](#), and [HR_RoadPooling](#) scripts.

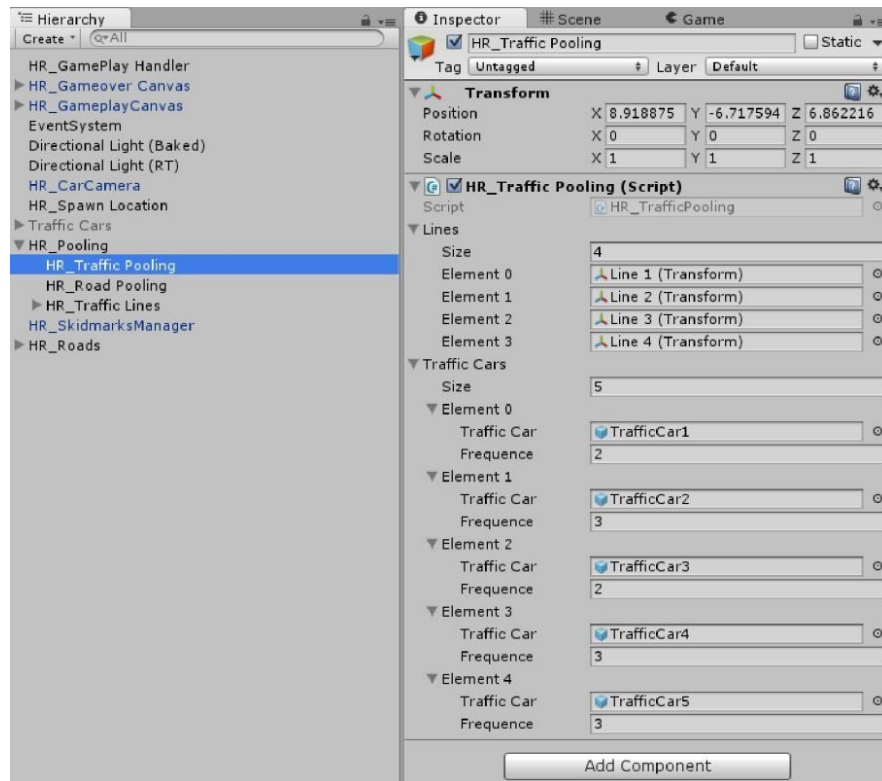
HR_GamePlayHandler

Manages time of the scene, UI Canvases, player spawn location, menus, etc...



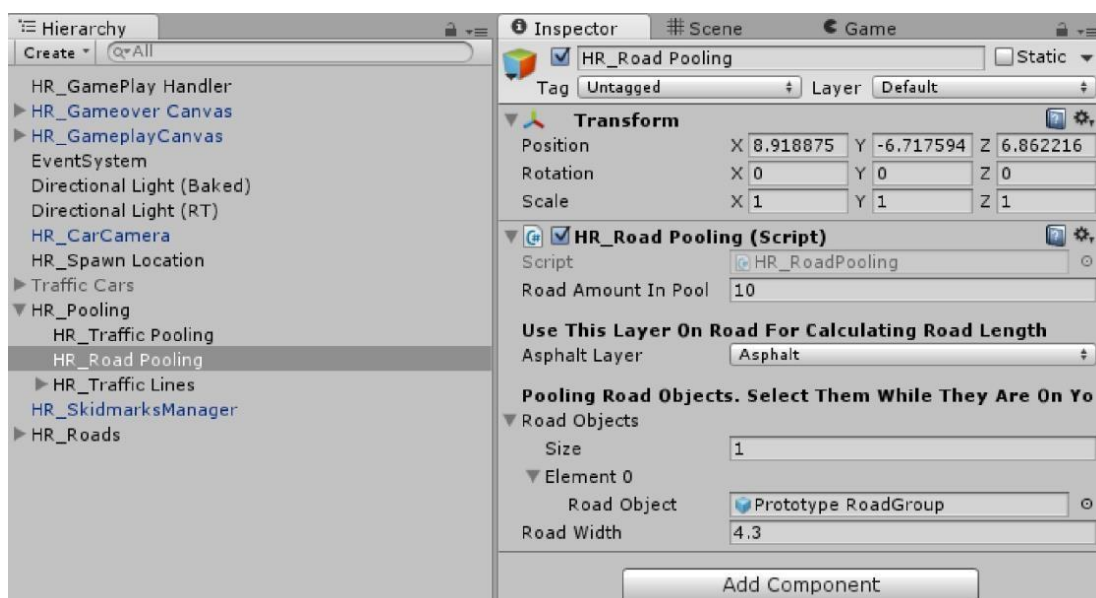
HR_TrafficPooling

Used for pooling and re-using the traffic. Road lines must be selected here. Traffic cars will use these lines.



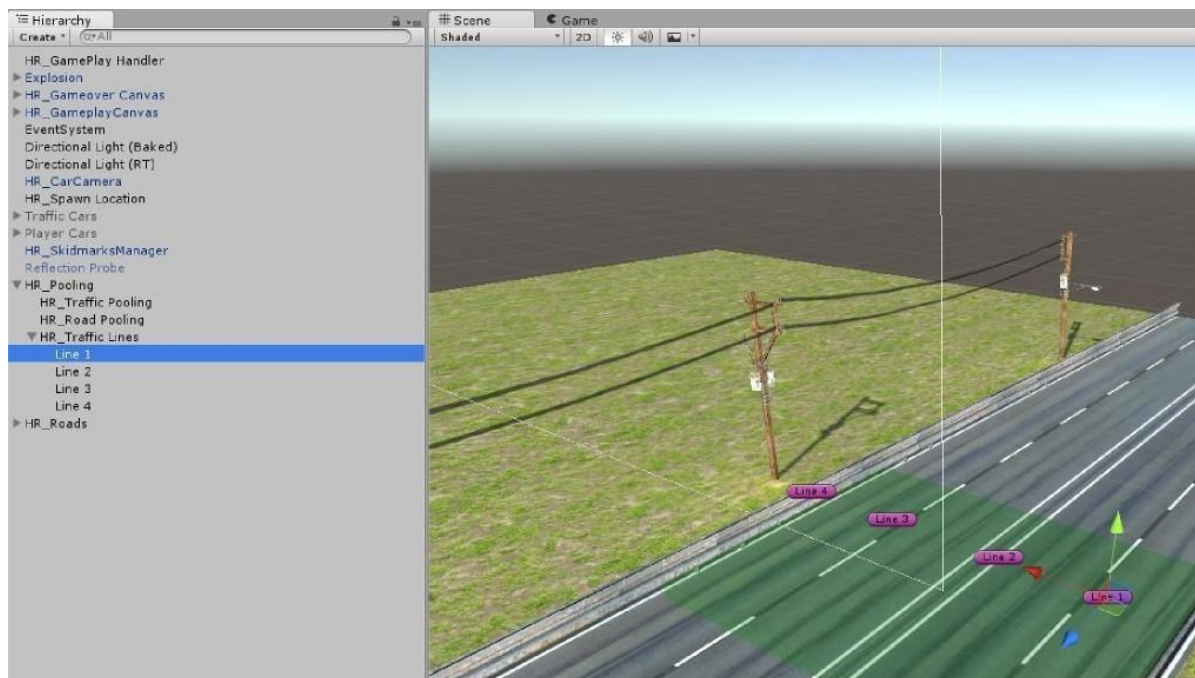
HR_RoadPooling

Used for pooling and re-using the roads. If you want to use lightmapped roads, you must bake it while on your scene. Once your baking is completed, select your road group while they are on your scene. If you select a prefab in your project, you will lose the lightmaps.

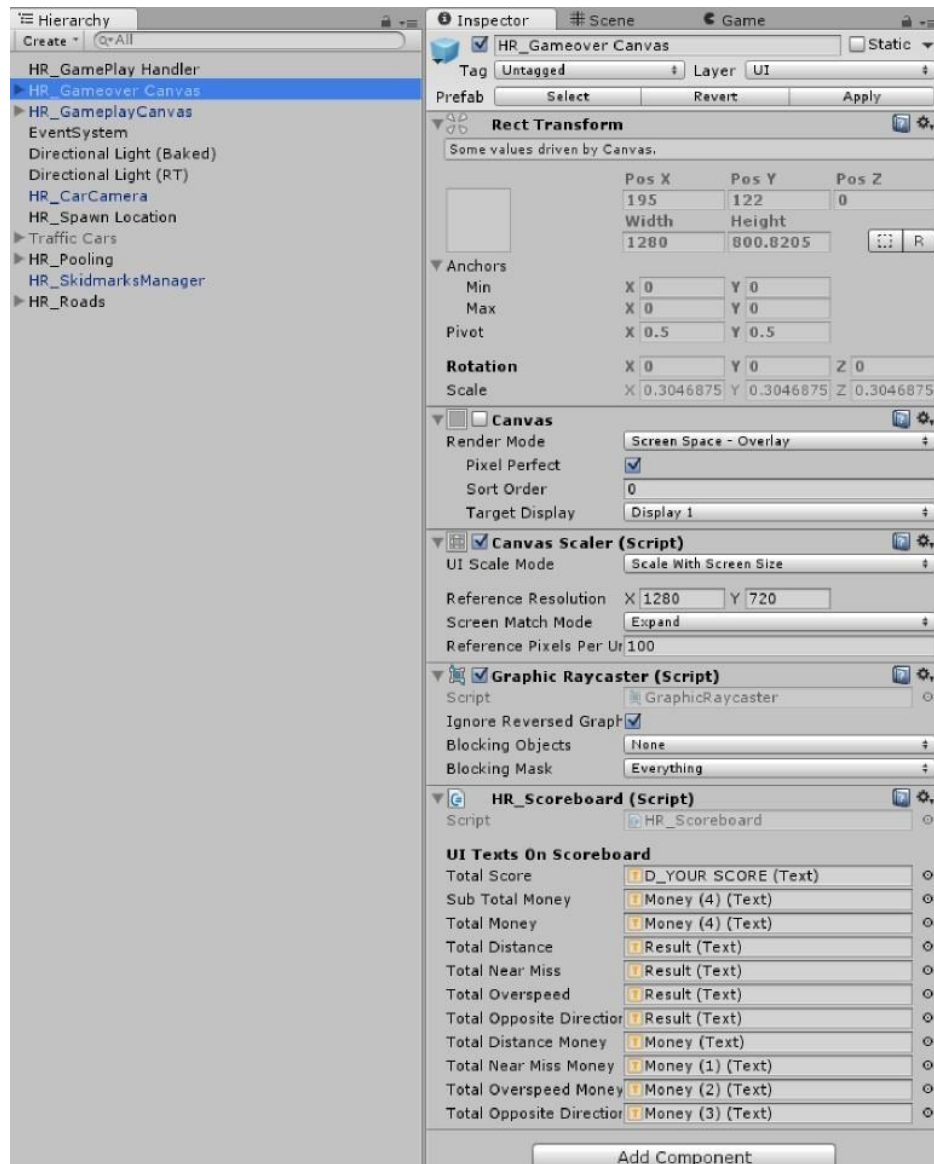
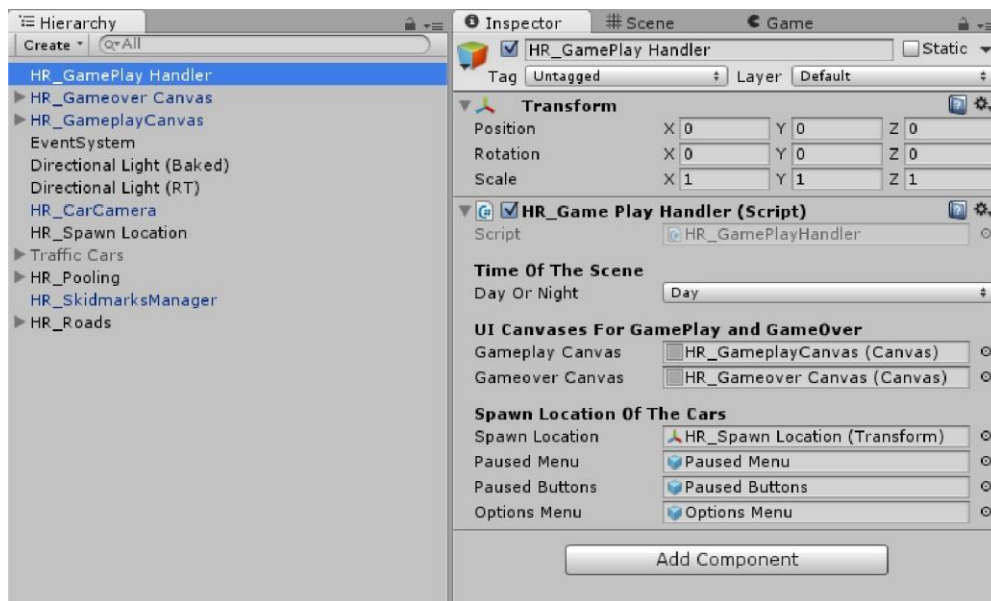


Traffic Lines

They are just transforms without any components. Traffic cars will use these lines. They must be selected in Traffic Pooling.)



GamePlay and GameOver UI Canvases



Adding / Editing Player Cars

All player cars are controlled by Realistic Car Controller. If you want to add your own car in the game, you have to create it according to Realistic Car Controller Documentation.

[Highway Racer Create Player Vehicle Tutorial Video](#)

There is a scene named “**HighwayCarCreateScene**” in the scenes folder. Open it up, and build your car here. If final results are good, you can add it to your game.

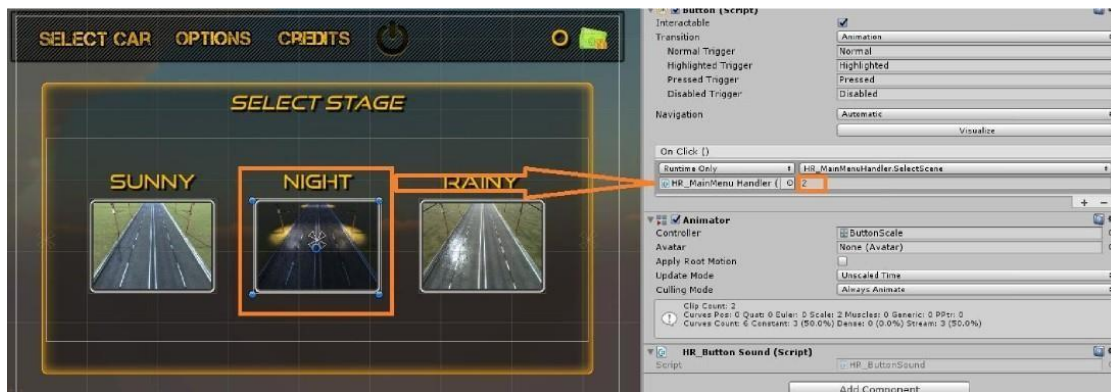
Make a prefab of your car. Just drag and drop your car root to “**Prefabs / PlayerCars**”. Select your prefab in **Highway Racer → Configure Player Cars**.

Steps are;

- 1- Create your car controller.
- 2- Add “**HR_PlayerHandler**” script to it (**HR_ModApplier** will be added automatically).
- 3- Create and save the prefab by clicking on.
- 4- Add the prefab to the player cars list by clicking on.

Adding / Editing Scenes

All these necessary handlers are located in “**Scenes / Scene Setups**” folder. You can drag and drop them to your scene for quick install. Actually you won't need to create a new scene and placing them. Just duplicate one of the gameplay scenes, and redesign the level. That's it! Add this new scene to Build Settings. At Main Menu scene, all UI buttons in scene selection canvas are using build indexes. For ex, build index of the night scene is 2. Night scene UI button is using index 2 to load the right scene.



All scenes are using just one big grouped road gameobject. This grouped gameobject must be selected in the [HR_RoadPooling](#) script. You have to use big grouped gameobjects like in other gameplay scenes.

[HR_RoadPooling](#) is calculating the road automatically. You don't have to specify road length, or make some triggers. But if you want to set it manually, simply disable automatic calculation and set your own value.

Also there is a blank prototype road gameobject for your new roads in "Prototype" folder. If you can't build your road, you can use this one. Just place your models on this prototype, change materials, textures, and you are done.

Optimization On Levels

All models have minimal amount of materials. Therefore, scenes have maximum 50 - 55 drawcalls at top camera mode, 80 — 90 drawcalls at fps or tps camera mode.

Scenes are using pooled traffic cars and roads. No wasting any resources. Also roads are lightmapped. This will avoid realtime lighting on roads and scene environment.

In the Main Menu, closest roads around spawn location are lightmapped at high quality settings. Other far away roads are lightmapped at low quality settings. All lightmaps are at 1024 * 1024 resolution.

None of any lights on any traffic car using as pixel lights. They are not affecting on any surface. They are just used for nice looking halo and lens flare effects. If you are planning to release it to PC or Mac, you can use pixel lights instead of vertex lights from [Tools](#) → [BCG](#) → [RCC](#) → [Edit Settings](#). In the “[Optimizations](#)” section.

Local Saved Files

Package is using PlayerPrefs registry data for saving player settings, cars, upgrades, highscores, achievements. To see them and edit easily, I can recommend “Advanced PlayerPrefs Window” asset on Asset Store.

API

HR_API.GetCurrency() = Current player cash.

HR_API.AddCurrency(int add) = Adds player cash.

HR_API.ConsumeCurrency(int consume) = Consumes player cash.

HR_API.UnlockedVehicles() = List of the owned vehicles as int list.

Contact

If you need any support, just contact me via BoneCrackerGames@gmail.com with your invoice number.