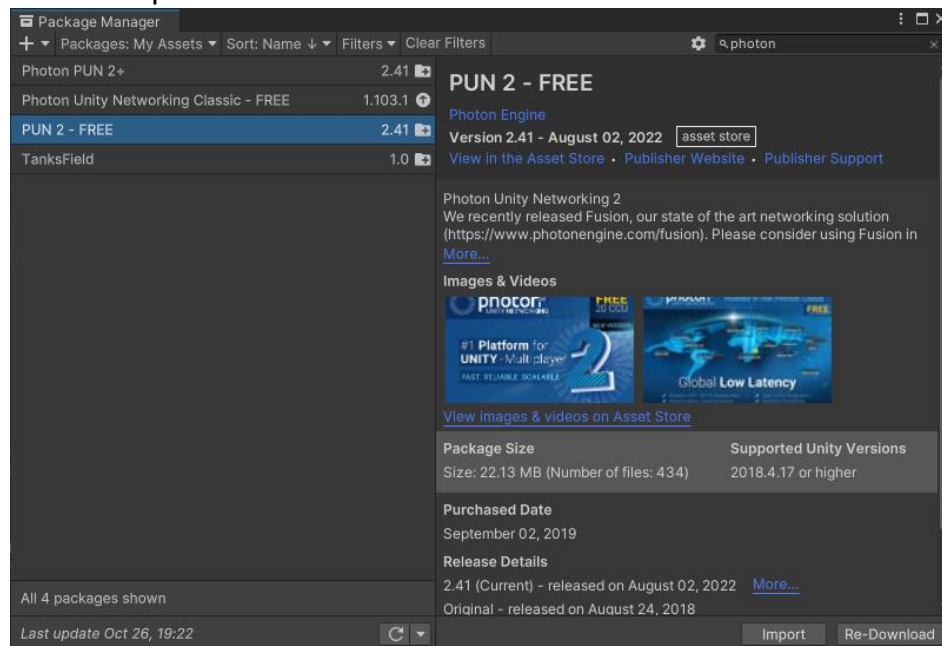


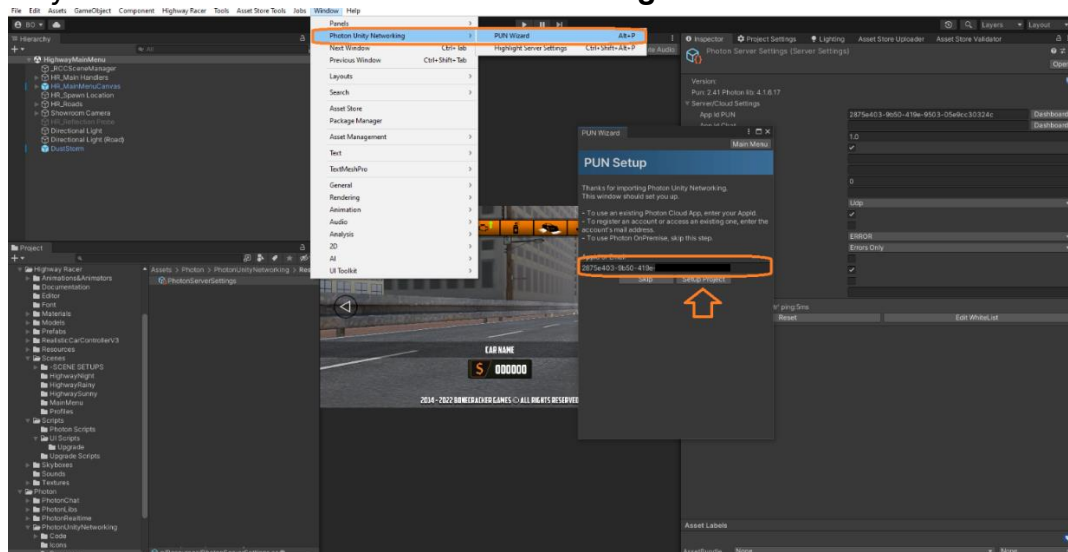
# Highway Racer Photon Integration

Highway Racer supports multiplayer features with **Photon PUN2**. Players will be able to race against each other and eliminate opponent by advantage of the overtaking distance. Players will still earn score and cash just like in the singleplayer. In order to use multiplayer features, you'll need to follow these steps;

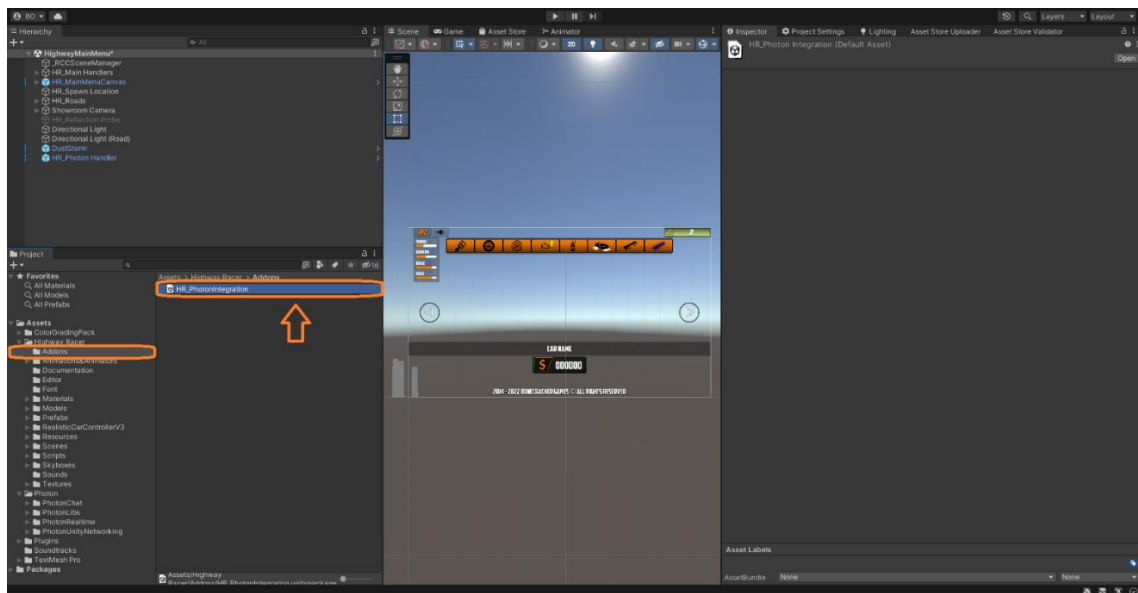
## 1- Download and import **Photon PUN2**.



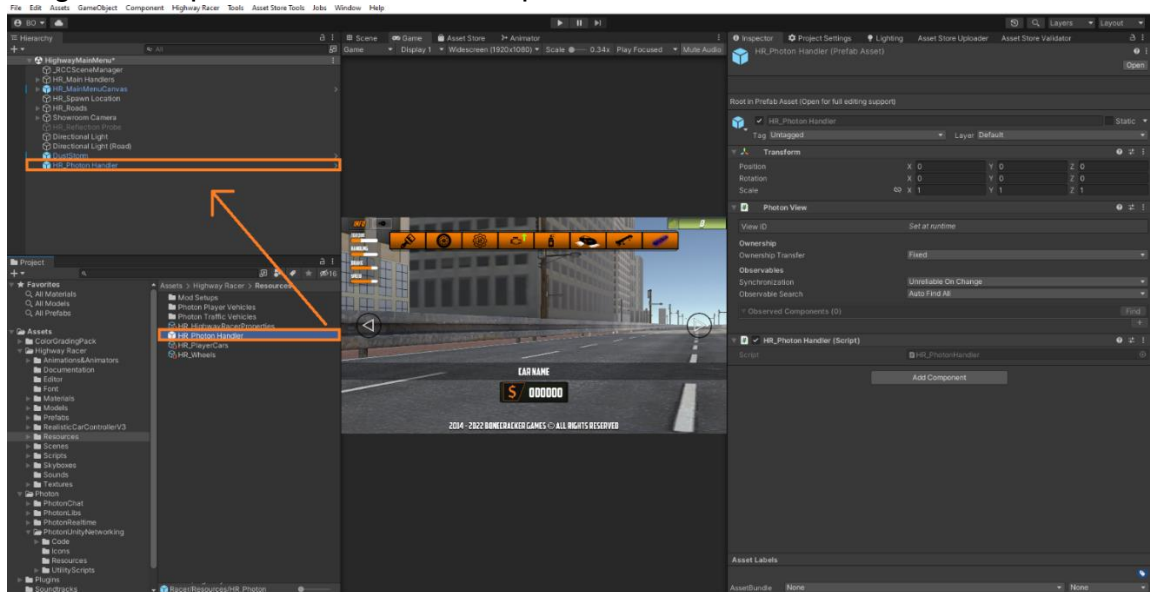
## 2- Enter your **PassID** to the **Photon Server Settings**.



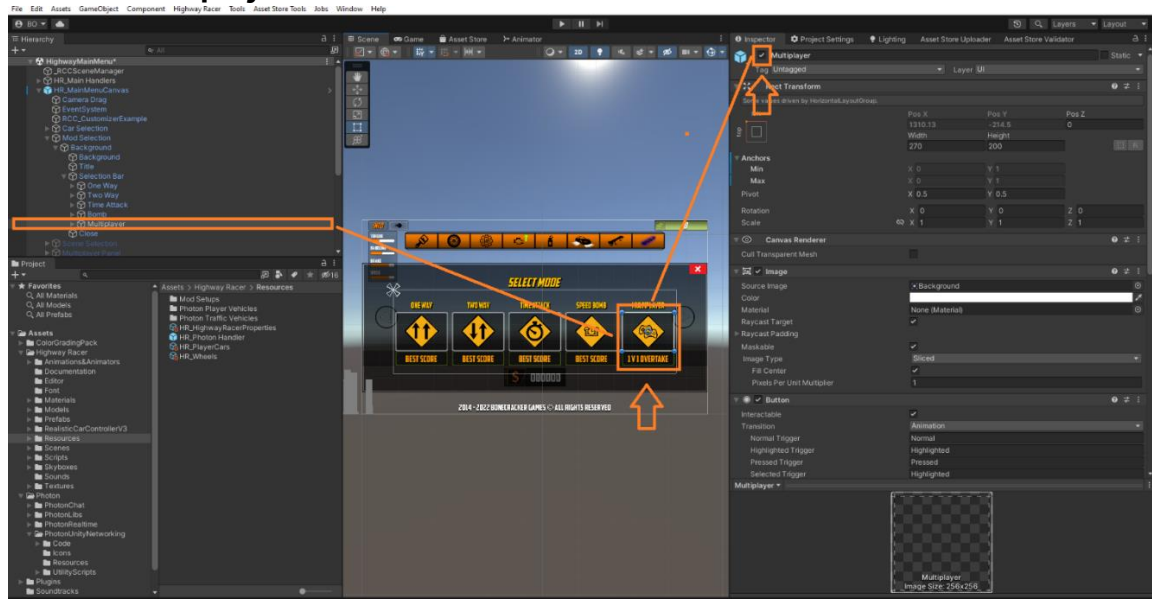
- 3- Import the integration package named “**HR\_PhotonIntegration**” in the “**Addons**” folder.



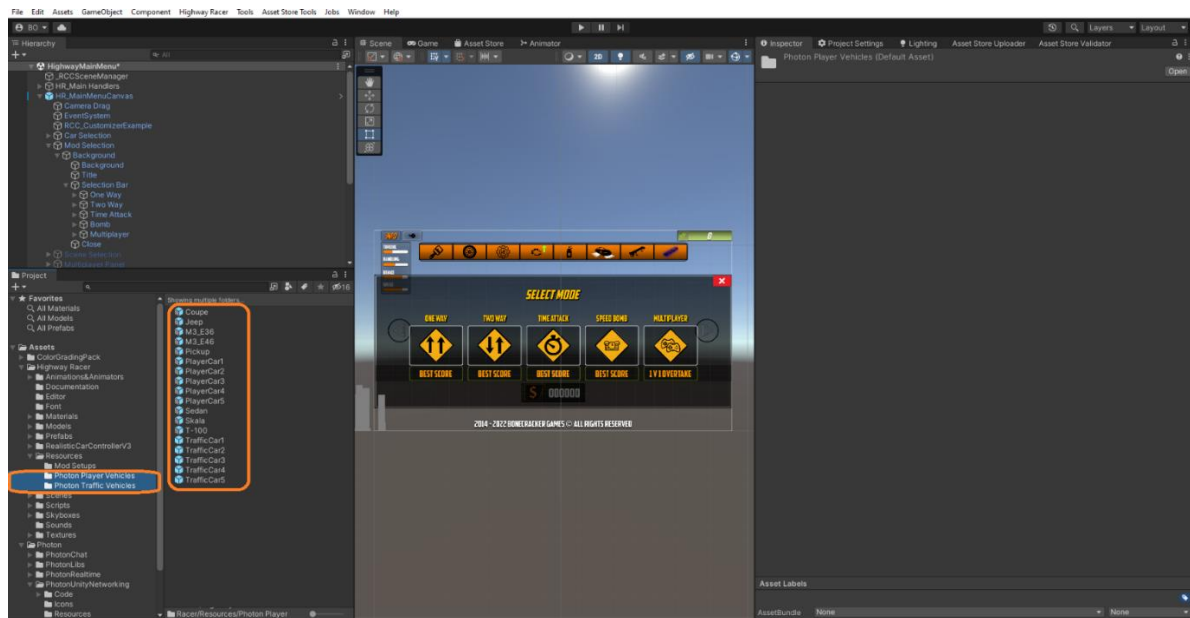
- 4- Drag and drop **HR\_Photon Handler** prefab to the main menu scene.



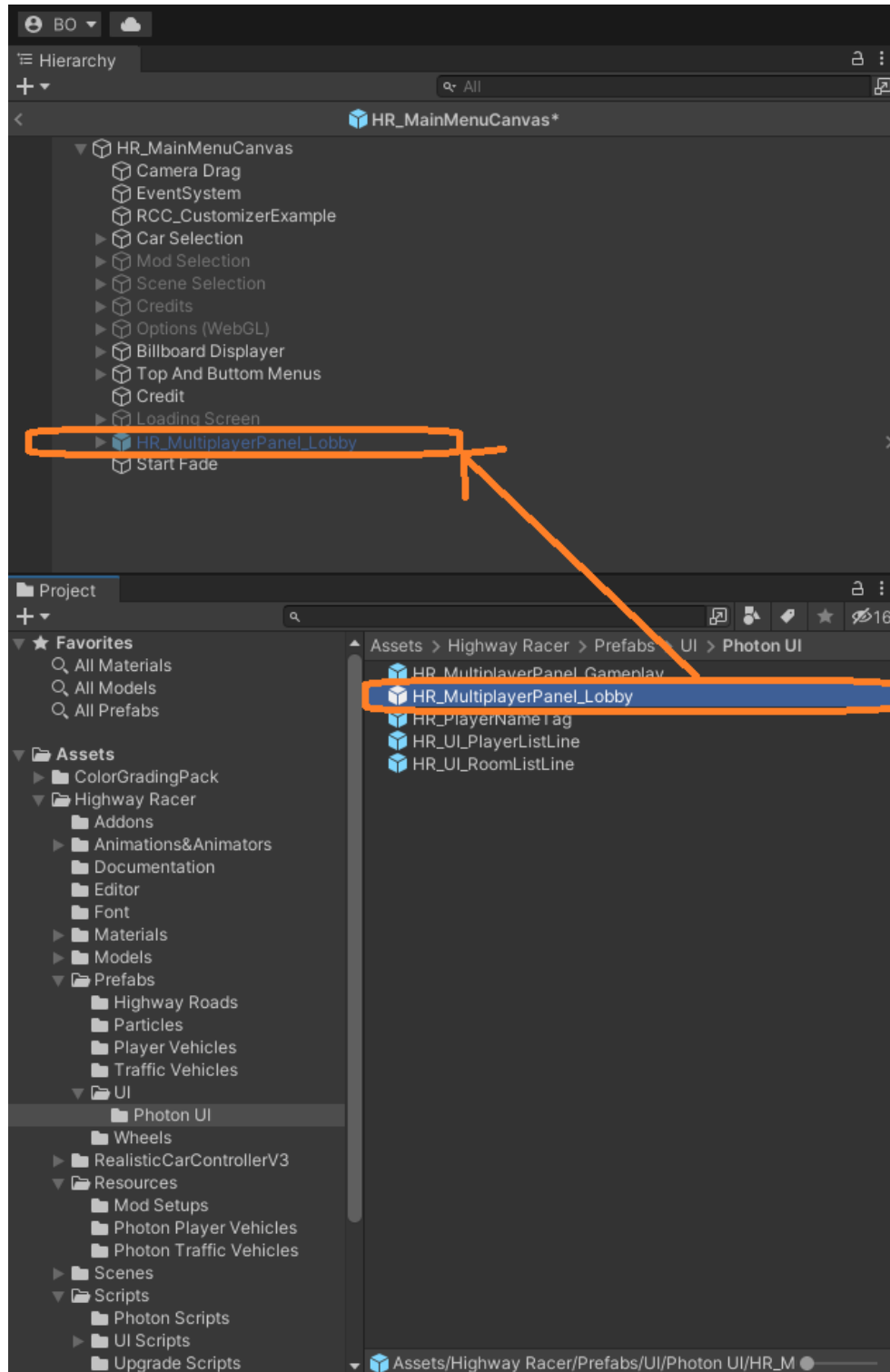
5- Enable “**Multiplayer**” mode button in the main menu canvas.



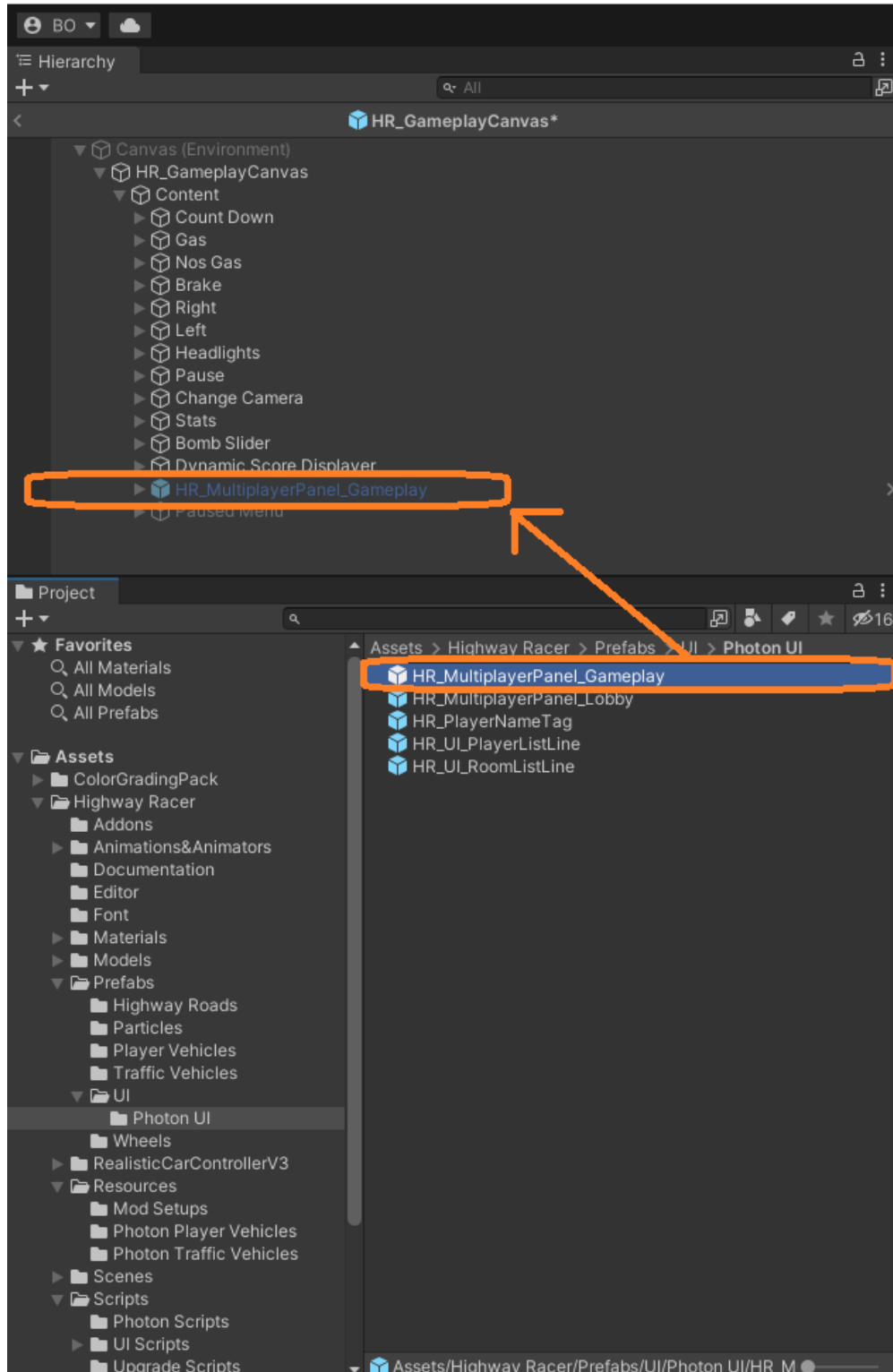
6- Be sure all networked vehicle prefabs are located in “**Resources/Photon Player Vehicles**” and “**Resources/Photon Traffic Vehicles**” folder.



- 7- Open the prefab **HR\_MainMenuCanvas** by double clicking it. It's located in the **Prefabs/UI** folder. Drag and drop "**HR\_MultiplayerPanel\_Lobby**" into the **HR\_MainMenuCanvas**. It's located in the **Prefabs/UI/Photon** folder. Save the prefab.



- 8- Open the prefab **HR\_GameplayCanvas** by double clicking it. It's located in the **Prefabs/UI** folder. Drag and drop "**HR\_MultiplayerPanel\_Gameplay**" into the **HR\_GameplayCanvas**. It's located in the **Prefabs/UI/Photon** folder. Save the prefab.



## How The System Works

Each vehicle has two prefab variants. One for local gameplay, other one for multiplayer. Two prefabs must be exactly same. Only difference would be networked vehicles will have “**PhotonView**” and “**RCC\_PhotonNetwork**” scripts.

Duplicate of the vehicle prefab will be used for networked vehicles. All duplicated vehicle prefabs for network are located in “**Resources/Photon Player Vehicles**” folder. **HR\_GameplayHandler** will be using this directory to spawn networked vehicles. Be sure your networked vehicle prefabs are exactly same version of your local prefab including name. Each vehicle has an editor button for duplicating the networked vehicle prefab. Just clicking it would create or update existing prefab in the “**Resources/Photon Player Vehicles**” folder.

Same method has been used for traffic vehicles as well. They have duplicated versions too. Only difference is duplicated versions have “**PhotonView**” script. If you’ve done any changes on your local traffic vehicle prefab, you’ll need to update duplicated version. Otherwise you’ll be using the old prefab.

### HR\_Photon Handler

HR\_Photon Handler is main manager of the multiplayer system. It includes events when network player spawned, or left, registers the players, controls traffic, and finishes the game with the right RPC functions. It must be at your main menu scene. Singleplayer mode won’t use it.

### HR\_LobbyManager

HR\_LobbyManager is connecting player to the master server, enters lobby. Listing active rooms, creating new rooms, listing other players with their custom properties.

### HR\_UIPlayerNameTag

HR\_UIPlayerNameTag is displaying the other player’s nametag on UI.

### HR\_UI\_PlayerListLine

HR\_UI\_PlayerListLine is displaying the other player’s name on in-room list.

## HR\_UI\_RoomListLine

HR\_UI\_RoomListLine is displaying all active rooms on room list.

## RCC\_PhotonNetwork

RCC\_PhotonNetwork is syncing all inputs of the RCC\_CarControllerV3.

## Events

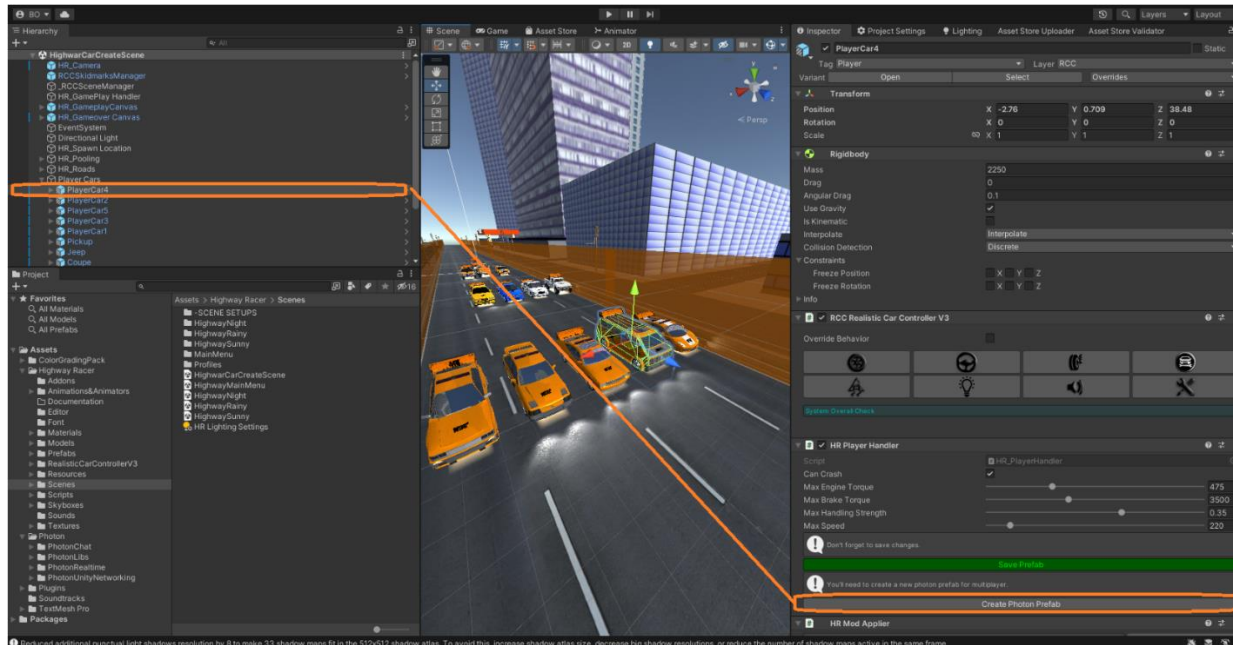
You can listen these events as well;

HR\_PhotonHandler.OnNetworkPlayerSpawned(int viewID) = When networked player spawns

HR\_PhotonHandler.OnNetworkPlayerWon (int viewID) = When networked player wins

## Creating Photon Vehicle Prefabs

Photon vehicle prefabs are duplicated versions of your vehicle prefabs. Only difference is, photon vehicles have “**RCC\_PhotonNetwork**” and “**PhotonView**” scripts. That’s all. In order to create a photon prefab of your vehicle, you must click “Create Photon Prefab” button on your inspector panel. This will create a new photon prefab with necessary scripts. You don’t have to do anything else. If you’ve done any changes on your local prefab, you can still click this button to update your existing photon prefab.



## Common Mistakes

- **I can create / join rooms, but can't spawn my vehicle.**
- Be sure you have your photon vehicle prefabs at "Highway Racer/Resources/Photon Vehicles".
- Don't change directory and name of the Photon Vehicles folder.
- Be sure your photon prefabs have "RCC\_PhotonNetwork" and "PhotonView" scripts.
- **I can't create / join rooms.**
- Be sure you've filled the AppID of your Photon Server Settings.
- **I can't see opponent player nametag.**
- Don't change directory and name of the HR\_UI\_PlayerNametag asset in the Resources folder.
- Be sure the prefab has "HR\_UI\_PlayerNametag" script with correct properties.



- **I can't see multiplayer button in the mode selection canvas.**
- Enable "Multiplayer" gameobject in your UI canvas (HR\_MainMenuCanvas/Mode Selection/Multiplayer)
- **I can't see traffic vehicles.**
- Be sure you have your photon traffic vehicle prefabs at "Highway Racer/Resources/Photon Traffic Vehicles".
- Don't change directory and name of the Photon Traffic Vehicles folder.
- Be sure your photon prefabs have "PhotonView" script.
- **I can't see multiplayer related UI**
- Be sure you've done the steps 7 and 8 correctly.

## Don't

- Be sure you have your photon player vehicle prefabs at "**Highway Racer/Resources/Photon Player Vehicles**".
- Be sure you have your photon traffic vehicle prefabs at "**Highway Racer/Resources/Photon Traffic Vehicles**".
- Don't change directory or rename any asset in the "**Resources**" folder. Scripts of the Highway Racer will be using the assets in this folder at runtime.
- Be sure your photon prefabs have "**PhotonView**" script.
- Be sure you've filled your **AppID** in your **Photon Server Settings**.

- Don't import the Photon PUN2 integration for RCC. Only import the HR\_PhotonIntegration package in the "Addons" folder.
- Don't try to import Photon PUN1, or Fusion. They won't work with them.

## Known Issues

Lights of the traffic vehicles are not synced. Will be working on that.

## Support

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