

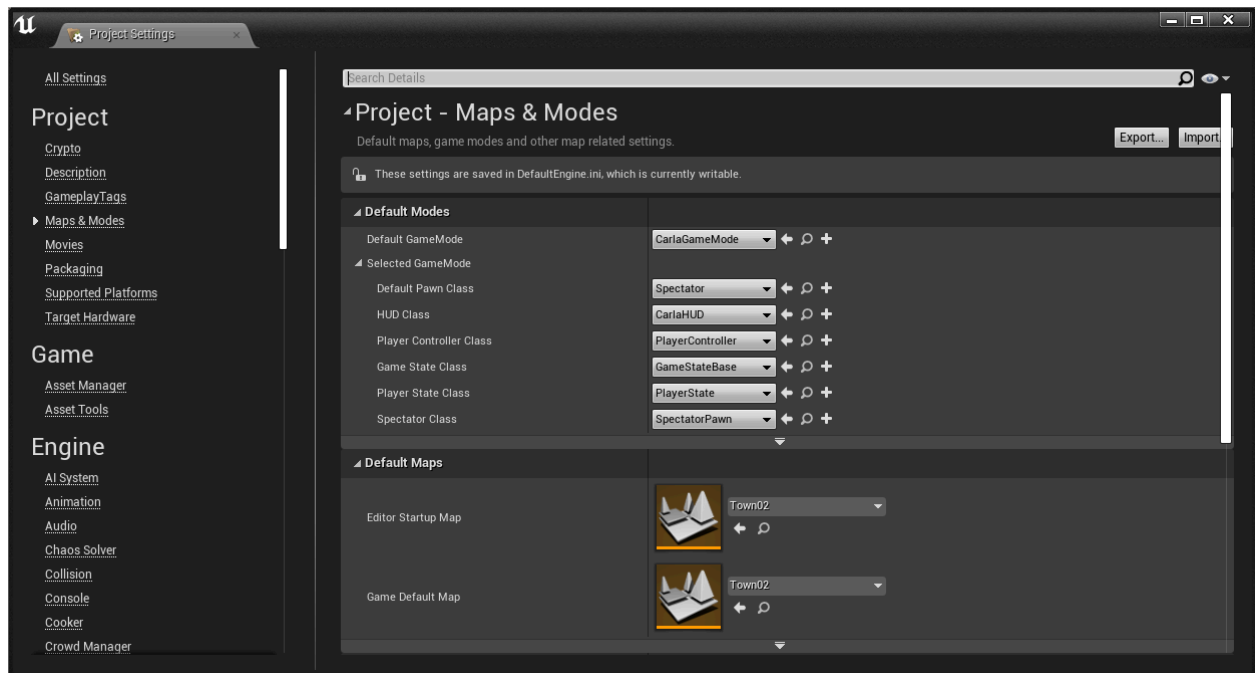
VR Setup Guide for Carla VR Chair Addon

This guide explains how to configure and experience the Carla VR Chair Addon in **Virtual Reality (VR)** using the **Unreal Editor**. It is based on **SteamVR** and tested with the **HTC Vive** headset, but the setup can be adapted to other headsets as well.

1. Project Settings Configuration

Before starting, ensure that the project settings match those required for a seated VR setup. A great reference for this is the Unreal Engine documentation: [Set Up a Seated Camera for SteamVR in Unreal Engine](#)

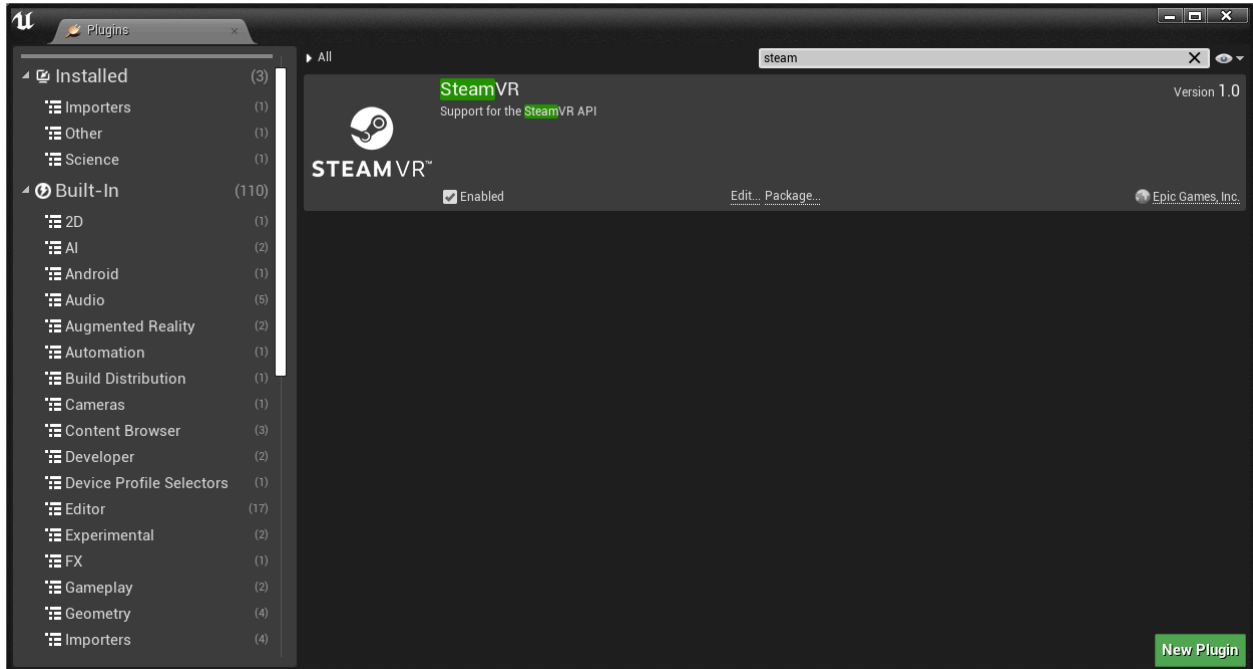
- Open the project settings via **Edit** → **Project Settings**.
- Verify that your configuration matches.



2. Enabling the SteamVR Plugin

To enable VR functionality:

- Go to **Edit** → **Plugins** in the Unreal Editor.
- Search for **SteamVR** and ensure it is **enabled**.
- Restart the Unreal Editor if prompted.



This project was developed using the **HTC Vive** headset, but SteamVR should work with other compatible headsets.

If using the HTC Vive with wireless capability, ensure the **VIVE Wireless app** is open and running before launching VR mode.

For other headsets, consult the manufacturer's documentation for specific setup requirements.

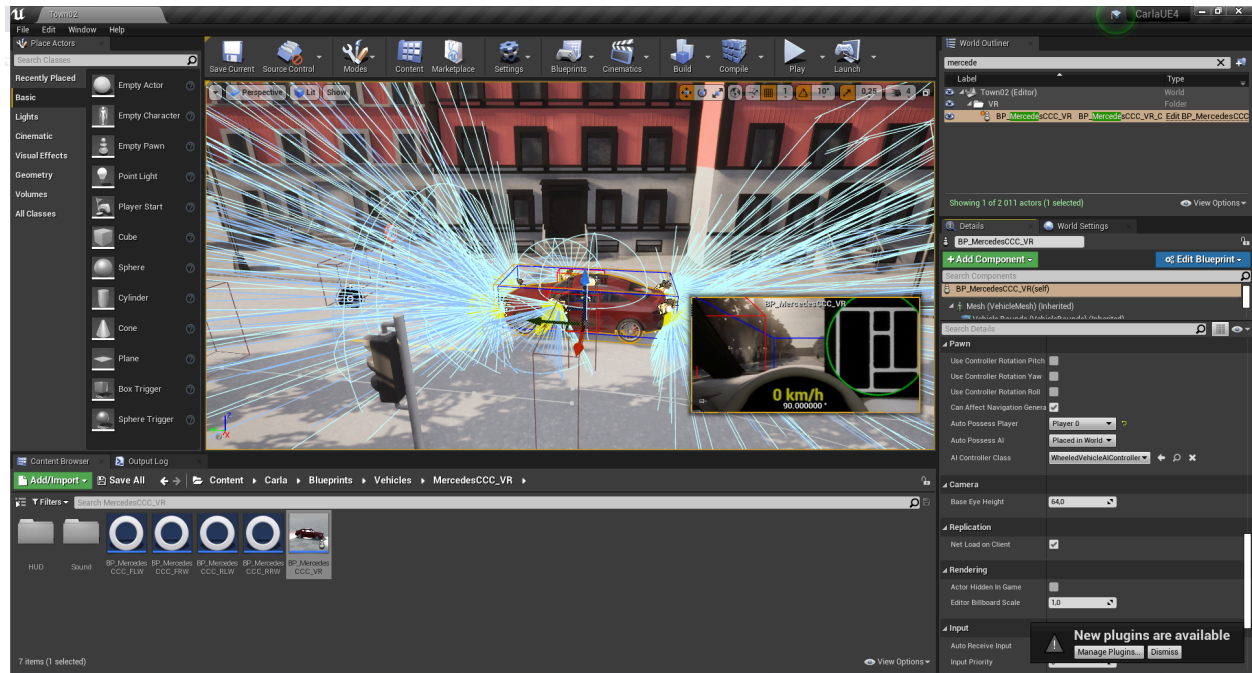
3. Using the VR-Enabled Vehicle

The vehicle pre-configured for VR integration in this project is: **MercedesCCC_VR**

To place and configure it in your scene:

1. In the **Content Browser**, navigate to:
Content/Carla/Blueprints/Vehicles/MercedesCCC_VR
2. Drag the blueprint into the **viewport** to place it in the world.
3. In the **World Outliner**, select the placed vehicle.
4. In the **Details** panel, search for **Auto Possess Player**.
5. Set **Auto Possess Player** to **Player 0**.

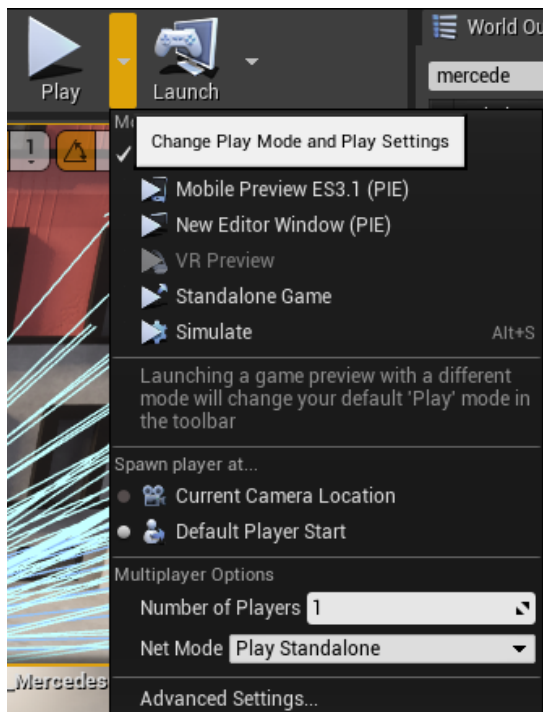
This ensures the player will automatically control the VR-enabled vehicle at runtime.



4. Launching the VR Experience

To begin gameplay in VR:

1. In the top toolbar of Unreal Editor, select the dropdown next to **Play**.
2. Choose **VR Preview** mode.



If **VR Preview** is greyed out:

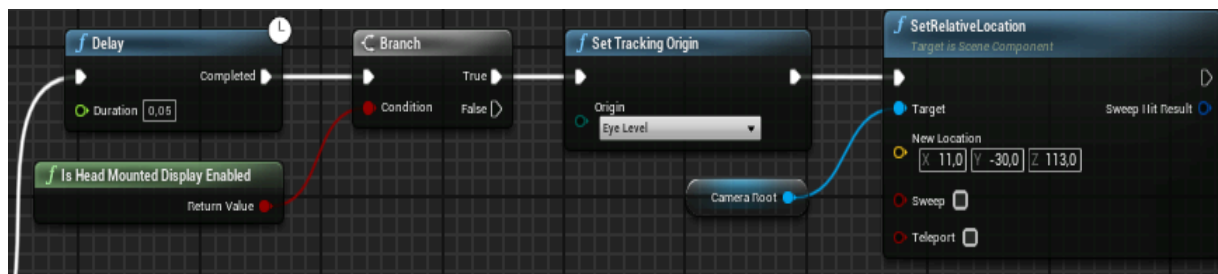
- Ensure your headset software is running (e.g., **SteamVR**, **VIVE Console**, or other).
- Recompile if needed with **make launch**.

5. Adjusting VR Camera Offset

If the VR camera appears misaligned or out of place when gameplay starts, you can adjust its position:

- Open the MercedesCCC_VR blueprint.
- Locate the SetRelativeLocation node used for the VR camera.
- Modify the location values as needed to align the camera properly with the seat or viewpoint.

This allows fine-tuning for different users or hardware setups.



6. Vehicle Control Setup

The controls for the **steering wheel and pedals**, which are physically connected and interact with the VR system, are explained in a separate document.

Please refer to the upcoming **Vehicle Control Setup PDF** for detailed configuration of input devices and gameplay logic.

Final Notes

- This VR setup has been **tested only on Windows** using **HTC Vive** and **SteamVR**. The setup assumes the use of the **developer version of CARLA 0.9.15**.
- Any headset supported by SteamVR **should work**, but each may require specific configuration steps.
- For additional help on VR topics, refer to **Unreal Engine VR Documentation**.