# Realistic Car Controller Pro

Thank you for purchasing and using Realistic Car Controller Pro. This documentation will guide you on how to configurate ground materials and how it works.

Realistic Car Controller Pro includes three ground materials to be used in the demo scenes. They are asphalt, grass, and sand. Each material has unique handling settings. You can access to the ground materials from the **Tools → BCG → RCC Pro → Configure Ground Materials**.
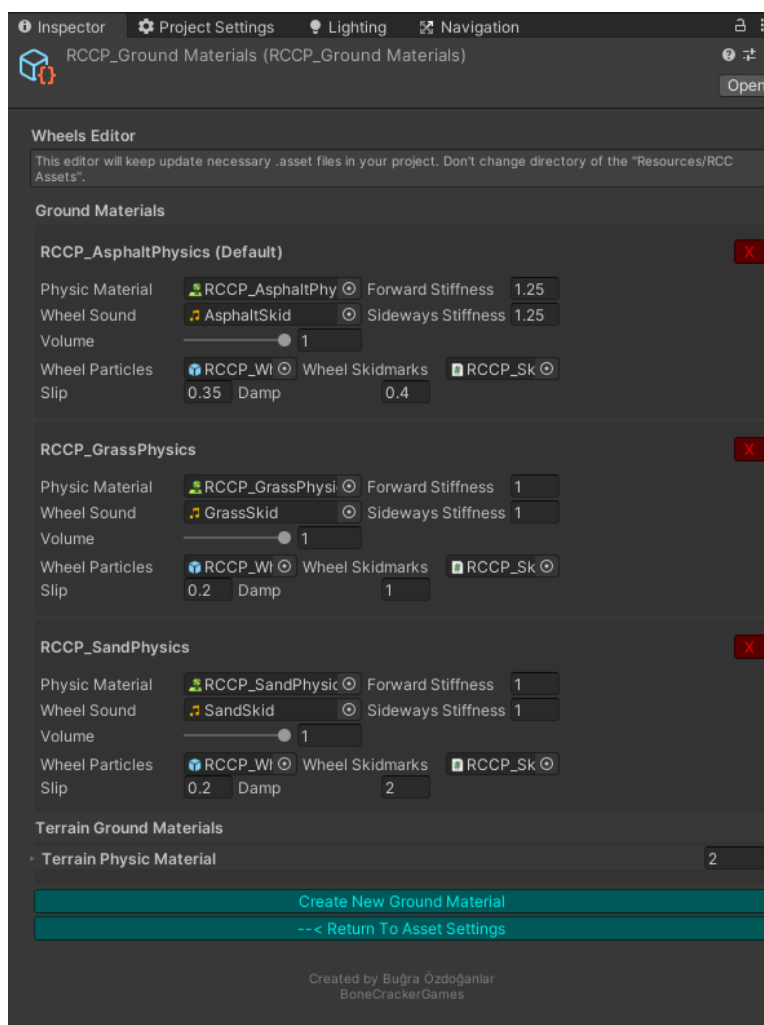
Once you open the panel, you'll be able to edit existing materials, and add your own new variables. To create a new material, simply click the "**Create New Ground Material**" button. This will create a new element for your ground material. Each ground material needs physic material, ground particles, and skid audio.

How the System Works

Each collider on your scene has a physic collider. For example, you've added a new material for mud. And new physic material for mud. When the wheelcollider of the vehicle hits any collider with that physic material, corresponding adjustments will be applied to the wheelcollider. Be sure to assign the physic material to the correct colliders.

Terrain Materials

Works with index of the textures. We have these materials by default in our **RCCP_GroundMaterials**;

1 – Asphalt

2 – Grass

3 – Sand

We need to set which texture of the terrain represents the corresponding material. For example, first texture of your terrain is grass, we need to set first index of the terrain to 2.

Settings

Forward and sideway stifness values represents the handling. Wheels will have more grip on higher values. Maximum volume of the wheel skid sound effect can be adjusted. Different skidmarks can be used on different materials as well. Slip value is minimum limit to enable wheel particles. If wheels are skidding above this limit, emission of the particles will be enabled. Damp is used to slow down the wheels. Vehicle will slow down on higher values.

Common Mistakes

- My new ground material doesn't work. Wheelcolliders won't detect it.
- Be sure your correct ground collider has that physic collider selected in the **RCCP_GroundMaterials**.

- I'm getting errors when wheelcolliders are hitting the collider.
- Be sure physic collider, ground particles, skidmarks, and skid audioclip is selected correctly in the **RCCP_GroundMaterials**.

- I can't see any ground particles.
- Be sure your vehicle has **RCCP_Particles** component attached to it.

- Terrain materials are not working properly.
- Be sure indexes of the terrain splatmap are correct.